BEFORE THE

FEDERAL ENERGY REGULATORY COMMISSION

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Technical Conference: :

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California Public Utilities Commission

505 Van Ness Avenue

Auditorium

San Francisco, California 94102

Thursday, June 2, 2005

The above-entitled matter came on pursuant to notice at 9:08 a.m.

A P P E A R A N C E S

From the Federal Energy Regulatory Commission (FERC):

Pat Wood, Chairman

Nora Mead Brownell, Commissioner

Joseph T. Kelliher, Commissioner

From the California Public Utilities Commission (CPUC):

Michael R. Peevey, President

Dian Grueneich, Commissioner

John Bohn, Commissioner

Joe Desmond, Commissioner (via telephone)

Susan Kennedy, Commissioner

From the California Energy Commission (CEC):

John L. Geesman, Commissioner

From the California Independent System Operator Corporation (CAISO):

Yakout Mansour, President and CEO

APPEARANCES continued:

PANELISTS and SPEAKERS:

Jim Detmers, Vice President of Grid Operations, CAISO

Jamie Simler, Western Division Region for Regulation, FERC

Steven Stoft, Consultant to the CPUC

Mike Florio, Senior Staff Attorney, The Utility Reform Network

Gary Ackerman, Executive Director, Western Power Trading Forum

Brian Chin, Energy Merchant Equity Analyst, Smith Barney Citigroup

Steve Schleimer, Vice President of Regulatory Affairs, Western Region, Calpine

Pedro Pizarro, Vice President of Power Procurement, Southern California Edison

Curtis Kebler, Vice President, U.S. Power Trading, Goldman Sachs & Co.

Katie Kaplan, Independent Energy Producers

APPEARANCES continued:

PANELISTS and SPEAKERS, continued:

Armando J. Perez, CAISO

Sean Gallagher, Director, Energy Division, CPUC

Don Kondoleon, Manager, Transmission and Evaluation Program, CEC

David Parquet, Vice President, Babcock & Brown Power Operating Partners, LLC

Steve Metague, Director of Electric Transmission Rates, Pacific Gas & Electric

Christopher J. Leslie, Executive Director, Macquarie Securities (USA), Inc.

Jerry Smith, Electric Utility Engineer, Arizona Corporation Commission

Brian Silverstein, Vice President, Operations and Planning, Chief Engineer, Bonneville Power Administration

Jim Avery, Senior Vice President of Electric Transmission San Diego Gas & Electric

Nancy Day, Board of Directors, Los Angeles Economic Development Corporation

I N D E X

P R O C E E D I N G S

(9:08 a.m.)

CPUC PRESIDENT PEEVEY: Good morning. All right. If everybody could please take their seats. I know that you're all merely here to see Pat Wood and Nora Brownell, who is seated to my immediate left and right, which is probably a little confusing politically, but only one of them is returning to Texas shortly.

Anyway, good morning, good morning. My name is Mike Peevey. I'm the President of the California Public Utilities Commission. I want to welcome all you to the PUC here today and to our auditorium, which is almost filled. And I want to thank, as we begin today, which is this joint meeting of the several agencies, I want to thank Pat would for all of the cooperative efforts over the last several years that he has shown to California as first a member and then Chair of FERC.

And on a very serious note I personally regret that he is returning to the state of his youth, but I understand that he has great political ambitions there and that everything will fall into place in due time.

I hope that as things proceed that with the efforts of Ms. Brownell, Mr. Kelliher, and Suedeen Kelly and others, that the collaborative approach that Pat was insistent upon at FERC, once he took the reins there, with

California and other states, too, will continue, and I'm sure it will.

A few remarks. What we're going to do today is I'm going to make just a couple of introductory remarks. Then we're going to hear -- if the phone bridge is working properly, we're going to hear from the new Chair of the California Energy Commission via phone, a somewhat discombobulated voice will be coming in, Joe Desmond.

And then Pat Wood will take over and be running the balance of the meeting today with input from all of us and comments at the appropriate times.

Just a few words on energy infrastructure, which is the topic of today's meeting. This state, with a very healthy assistance and push from this Commission, is committed to fashioning a resource adequacy policy that supports existing resources and future investment in infrastructure to meet our ever-growing demands in California.

And I want to emphasize that our resource adequacy policy is being guided by the loading order and the energy action plan we adopted over two years ago which gives priority to energy efficiency, to demand response, and to renewable resources, all very consistent with the remarks the Governor made yesterday in announcing his global greenhouse gas reduction strategy for the next 10, 20, 30,

and 40 years.

Moving forward, the PUC is committed to clearly articulating a durable framework for resource adequacy to support existing and new infrastructure development. This requires creating a mechanism to ensure that efficient -- excuse me -- sufficient resources are available to support existing resources and investment.

Resource adequacy in my view can be implemented in only two general ways. Either in the -- or, first, the first approach relies on a regime of freely-floating spot energy prices complemented by forward energy contracts, or a second approach that relies on a cap spot market price in a capacity market.

In February of this year I issued a ruling that asked the PUC staff to evaluate capacity markets and how development of such markets in California might promote the Commission's goals for resource adequacy. I'm very intrigued by the idea of creating a workable capacity market to complement the energy market.

Lastly, as California implements resource adequacy we will need FERC's assistance in addressing the seams issues between California and the rest of the West. So I look forward to today's hearing and the discussion of these and other fundamental infrastructure issues.

Now is Mr. Desmond available?

CEC CHAIRMAN DESMOND (by conference phone): Yes, he is.

CPUC PRESIDENT PEEVEY: Hello, Joe.

CEC CHAIRMAN DESMOND: Good morning.

CPUC PRESIDENT PEEVEY: We've got a packed house here.

CEC CHAIRMAN DESMOND: I wish I could be there in person, but until we figure out how to do two things at the same time, we're conducting the second day of a workshop and we're looking at resource adequacy money that is almost the same topic in this case.

So if you'd like, Michael, I could make a few remarks right now and --

CPUC PRESIDENT PEEVEY: Please do so.

CEC CHAIRMAN DESMOND: -- then when this is over, listen in.

CPUC PRESIDENT PEEVEY: Please do so, Joe.

CEC CHAIRMAN DESMOND: Very good. Well, first let me thank you for the opportunity to dial in. And, as I said, I apologize, I cannot be here in person, although I will be heading into San Francisco later today.

I'd like also to extend a welcome to the other members sitting up there on the dias from FERC as well as the others, and extend a welcome to everyone. I'm sure you have quite a large audience.

Let me speak for a moment here about the need to follow on the energy market and infrastructure for resource adequacy. I think most people in this audience have heard -- have heard the Governor's policy for the future as to the cooperation and assistance between the various agencies who have been working together over the last few years to arrive at a set of priorities. And on the top of that list in ascending order is: Energy efficiency, demand response, renewable energy, more traditional fossil fire fuel, and then current with that, looking at the need for a transmission infrastructure.

I'm going to limit my comments today to talk a little bit about the purpose or opportunity of a capacity market and what it can do for California to help satisfy the requirements that the PUC adopted, which is a 15- to 17-percent planning reserve margin for load-serving entities.

First, let me say that the purpose of a capacity-market structure, and there are several ways in which we can get to this, is first is a compliant-demonstration mechanism. In order to avoid having to continually revisit, a well-designed functional capacity market can be used as a compliant-demonstration mechanism to ensure that all load-serving entities -- by that I mean the investor-owned utilities and the other load-serving entities who provide electrical service to direct-access customers,

are, in fact, in compliance and they're looking sufficiently far forward in securing those resources, making sure that they are both deliverable, as well as we have assessed the value or the sort of accounting methodology of how we weight and provide value to the particular resource.

There has been a lot of work done so far in many of the technical workshops the PUC has sponsored to resolve some of these questions, although clearly there is some more work that needs to be done, specifically addressing the whole area of reliability issues.

But the compliance demonstration mechanism is an important function of a public utility capacity market mechanism.

The second objective, then, is that it should also function as a settlement mechanism for obligations as those obligations change with customer loads change.

Setting aside the issue of whether or not there is retail choice, but the question still remains as load changes under one of three conditions. It could be community choice aggregations. It could be direct access, contract expiration and renewal, or it could be a municipalization where customers are now being served by someone outside of PUC's purview. Then we still have this issue of obligations, financial obligations, made on behalf of customers, for those customers may be served by other

suppliers.

So the second function then of a well designed capacity market should be to address the settlement, financial settlement obligations, as those loads change hands.

The third is to provide a level playing field for supply and demand side to participate as a way of mitigating against high priced volatility. There is a lot of opportunity. The State has adopted a goal of five percent of consistent peak of customer demand response for 2007. We are not there. We have some distance to go.

A capacity market provides the opportunity for a financial stream in order to allow stable business models to emerge and have those resources participate actively on an equal playing field. So, the details in this case.

I think I led a presentation recently that was entitled, "The devil's in the details," clearly is the case here. But we have to ensure that we're talking and encouraging demand and supply at the same time.

The third function is that the capacity market needs to provide the appropriate incentives to compensate providers, supply and demand side, to make the necessary investments in the market. That may not mean that they are recovering 100 percent of fixed costs in terms of receiving that. But as an appropriate mechanism, it should provide

sufficient incentive to offset fixed costs of making that available.

Another key element is going to be that it should function and fit well with the California ISO's market design in order to make those resources available in the market as a way of ensuring that the ISO can execute its responsibility.

The Governor has said consistently that resource adequacy is an obligation that needs to be applied equally to all load-serving entities. I think we can infer that means the market participants.

And what is important right now is that we move quickly to define what the market structure design needs to be, when it needs to be in place, what the transition strategy needs to be, and that we bring resolution to the outstanding issues around what counts, how is it deemed to be deliverable, the issue of Firm LD contracts, whether or not demand-side resources can be certified in a process consistent with supply, what the forecasting methodology is to be used to establish what that criteria is, as well as when the capacity requirements are imposed, and there's been discussions about the monthly versus a load profile, a system-load profile even to the point of coming up with an hourly installment.

There are still some probable discussions around

the appropriate mechanism, whether that is a capacity tag, that has been put forth by a number of organizations; or a capacity market design, similar to the East Coast, which includes, for instance, an demand curve, although it's important we recognize the differences between California and the function of those Eastern markets.

So I am hoping that what comes out of this today is a consensus, to the greatest extent possible, on the timing of the issue around ensuring a mechanism is in place so that the State can acknowledge that it is in compliance, recognizing that over time we may adjust what those requirements of compliance are, since it has been discussed 12 months may not be sufficiently brought forward to construct a plant. Yet it's a starting point for us to be able to look out into the future and determine what the appropriate mechanisms are and what steps need to be taken.

So, again, I wish I could be there in person to listen to the discussion. I will be listening in at various times of the day. But with that I will conclude my opening remarks and turn it back over to you, Michael. Thank you.

CPUC PRESIDENT PEEVEY: Thank you very much, Joe, for the thoughtful remarks there. And before I turn it over to Pat Wood, let me just say that there are two PUC Commissioners not here at the moment.

Commissioner Kennedy had another appointment. She

will be here at approximately 10:00 a.m.

Commissioner Brown is a continent away looking at biomass projects at the distilleries of Ireland.

(Laughter.)

CPUC PRESIDENT PEEVEY: For the overflow crowd, if there is an overflow crowd, Hearing Room A is also available with video.

And now it's my distinct pleasure to turn to my left, as I said provocatively and turn this meeting over to Pat Wood, the Chair of FERC.

FERC CHAIRMAN WOOD: Thanks, Mike. I appreciate the warm welcome. It's nice to be back here. We were here in this Commission about a year or so ago to discuss resource adequacy. And, more importantly, for me I guess, historically four years ago this month Nora and I came out and began the first of our -- with our Commission there's now been 12 of, across the entire country, what we call our infrastructure roadshow conferences, where we go out to different parts of the country, focus on the regional infrastructure issues there, and see what action items we come up with, our sister agencies come up with.

Four years ago we met in the chambers of the California Energy Commission in Sacramento. Nora and I had just come out shortly after joining the Commission and the must-offer, the West's must-offer/price cap order had just

been voted on. And we came out here, met the political leadership of the state, but importantly for us set down in the CEC's chambers and with a relatively -- a room about half as full as this one, discussed infrastructure issues in California, because it was certainly viewed at the time, and I think history is proven right, that in that perfect storm of events going on, one of the big issues, although not the only issue, but one of the big issues going on that contributed significantly to the crisis and to its length and severity was the dearth of infrastructure and the slowdown in investment that had been made in the state prior to that time that led to a really tight situation when all the other factors of that summer of 2000 came into play.

And, you know, kind the view of fool me once, shame on you; fool me twice, shame on me. We decided we'd go out there and actually learn and walk in there without a preconceived opinion about what's going on and what happened and learned a lot.

Actually, the focus at that point went, interestingly enough, to natural gas infrastructure. And so in one of our presentations that we'll open up with after the intro panel here, Mr. Wright from our staff will look at the panoply of infrastructure, "She's Not Just Electricity," which will be the focus of what we are looking at today, both from a natural gas infrastructure issue since that is

such an important swing fuel here in this state and from our projections looking forward will continue to be a significant fuel in the state.

So I'm thrilled that there is a simultaneous hearing in Sacramento with Joe Desmond and that group about LNG and the important gas issues that face the state. It's a great fuel. I come from a state that uses a lot of it, as well. So how we solve this issue here has implications for the whole country.

I have to say I think after four years I thought we would be farther along. I thought that we would have a restoral of a lot of the anomalies that our Commission, this Commission that's hosting our conference today; that the Energy Commission; that the two governors that have presided over this state in that period have identified and articulated pretty well.

And it's a bit disheartening, quite frankly, to see that we're looking again at, you know, a potentially tight summer, maybe another two, certainly one summer before the proposed resource adequacy that Mike Peevey and the good Commission here have done so much to lead and push forward in not necessarily a particularly a welcoming climate to get forward on these things that we need to do to make sure that the state and the region have long-term energy security.

The Commission, of course, has been through a lot

of other -- our Commission, the FERC, has been through a lot of other aspects of the crisis over the last four years in dealing with picking up the pieces of all the aspects from refunds, and market misbehavior, and behavioral rules, and redesigning the markets, and know the pricing and infrastructure, Path 15. I mean, there's probably been not a month that goes by that there's not a significant California issue on our docket a whole continent away. So please know that our Commission remains committed.

And I thank you for the important observation that, you know, this is a collaborative effort here. And it truly is and will remain so. But we remain committed to, in my mind, the three Rs. We remain committed to resources, an important focus of today's conference. And by that I not only mean supply resources, but demand resources in which this state has been a global leader for so many years and had so much to offer the country and the world on demand side responses.

We remain committed to restitution. Restitution of the dollars that were overcharged in the 2000-2001 time period, some of which have begun to flow through but due to extensive and fair due process required by our laws and by those of the state, as well, require some time to get done. And unfortunately with time comes some distance from the people who suffered the harm. But we remain committed to

that process and getting it completed in as fair as possible way, but also restitution of confidence.

I think it's very important for the customers of the state, as well as of the broader country, to have confidence in the energy industry and to have faith that the public's interests will ultimately prevail.

I don't think that was a message anybody walked away from when we were here four years ago that this is what, in fact, was going on. But it's an important step that the state and the feds, as representatives of the public interest, have to do to restore that confidence.

But restitution of not only dollars, but confidence is the important second R.

And the third R is the commitment that we have to rebuilding, rebuilding the market, rebuilding the market rules. But, most importantly, and I appreciate, Mike, your remark on that, rebuilding the relationship between our agency and yours and the other agencies of the state government that were so frayed during that period in the early 2000-2001 timeframe.

So please know that regardless of who holds the gavel at our Commission we'll continue to remain committed to the three Rs and look forward to a productive conference today to address as much of that as we can.

I'd like to ask my friend and colleague, Nora

Brownell, for some comments followed by my friend and colleague, Joseph Kelliher, for some thoughts and comments as we kick off today's conference.

FERC COMMISSIONER BROWNELL: Thank you, Pat. Hard act to follow as always. But I was thinking when we talked about coming out here how far we've come and how far we haven't come.

But when we talk about California and people talk about the perfect storm I think now we have the perfect opportunity. We have a terrific and strong CPUC with two great new members, but a really inspirational leader in Mike Kennedy; we have new leadership at -- I'm sorry --

(Laughter.)

FERC COMMISSIONER BROWNELL: Well, you know, when -- said two things. It's didn't say Mike --

(Laughter and aside comments.)

CPUC PRESIDENT PEEVEY: It's very Freudian, but I accepted.

FERC COMMISSIONER BROWNELL: -- and the CEC with its leadership, continued strength in John Geesman; our new board with whom we had a wonderful meeting not long ago at the FERC, at the ISO; and with my friend Yakout Mansour at the helm at the ISO, I think we have the opportunity to show the world that, yeah, we can make mistakes, but we can get it right.

But I think that means that we have to develop a stronger sense of urgency in resolving what are complex issues that involve money, which no one likes to step up to the plate and spend, but the pieces have to fit together. So we can't have market design on one side and research capacity on another, capacity markets.

When you put the pieces together, and I think we need to do so soon, because when we look at the infrastructure we see a strong need for investment. So I'm excited about what we're going to do here today and hope that we all leave here with kind of a renewed sense of excitement about what we can do.

One of the things that we were criticized for four or five years ago was the lack of a knowledgeable team specific to California and the West. And I want to just take a moment and introduce our Western team. I was surprised to learn that a lot of people weren't aware that we had that. These guys probably know more about your backyard than you know about your backyard.

And we also have three people on the ground at the ISO. So if you'll stand -- and we also brought some other staff here. And I'm going to forget somebody, I know, and I apologize already. But let me first start with the team.

On the ground at the ISO, and we thank you for welcoming them, we have Charles Faust, Saeed Farrokhpay,

Katherine Gensler. If you want to stand so people know. These are the guys to call when you have a question.

(Applause.)

FERC COMMISSIONER BROWNELL: Jamie Simler, whom I sacrificed, by the way, for the cause, just an example of my commitment, worked for me and now heads the Western team, is probably one of the smartest people I've ever met and really is committed to making this market work.

With Jamie we have John Carlson, J. B. Shipley, Colin Mount, and David Lingenfelter. So if those of who you are here would stand. I think Jamie has disappeared, but get her card at the break.

(Applause.)

FERC COMMISSIONER BROWNELL: Oh, here she is. Sorry.

And then we have a number of other people here who also work on Western issues. We have Carlos Clay, Harry Singh, Jeff Wright, Derek Bandera. And from our Office of External Affairs Bryan Lee and Mark Whittendon. These --

(Applause.)

FERC COMMISSIONER BROWNELL: These folks are your friends. They're smarter than Pat and I and Joe. And so they are the people to talk to. And I thank them for their commitment. And we do vow to continue the collaboration.

And, Mike, as long as you continue to provide

great food and wine we'll be here more often.

FERC CHAIRMAN WOOD: Joe.

FERC COMMISSIONER KELLIHER: That's a hard act to follow, too, I have to say. I want to say that I'm glad to be here, as well, and echo some of what my colleagues have said that it wasn't too long ago that it would have been impossible for FERC to sit down with the CPUC and the Cal ISO and have a civil discussion about electricity policy matters. And I look forward to doing that today.

I think it's possible to have that kind of more collegial discussion because of changes that have occurred at CPUC and the Cal ISO. And I particularly want to commend the leadership of Cal ISO.

But it's indisputable that there are problems and that some problems have remained for some time. I mean it's a little bracing that five years after the California electricity crisis we are still worried about the adequacy of electricity supply in Southern California.

And if you look at the Southern California that is the worst electricity supply situation in the entire country. So that is -- it's a problem. It's a problem that's remained and continued.

And I hope that today we'll focus discussion on why that problem exists, why it has remained, and the merits of the different proposed solutions. And I hope that we can

work on solutions in a collegial manner. And I do think that's a contrast to the way these problems were addressed five years ago.

Five years ago there was a war between FERC, CPUC, and Cal ISO. And that, in my view, impeded the development of solutions to these problems and probably contributed to the crisis. And I think it certainly served to undermine public confidence in all three institutions.

Now I hope that those wars are in the past, except for LNG siting, which that seems to fit --

(Laughter.)

MR. KELLIHER: I wasn't going to say it, but I thought it would come up.

CPUC PRESIDENT PEEVEY: I don't know about that, Mr. Kelliher.

MR. KELLIHER: I was going to -- I wanted to be an optimist, but I thought there is still one area of conflict of that I have to recognize.

But, you know, five years ago there was a recognition that some of the market rules needed reform and there were some initial steps taken in that direction. But of course the crisis interrupted that effort and it's been largely suspended. And there's been pretty modest progress towards reform of market rules in the past five years.

And I think it's time basically to take up where

we left off five years ago and try to finish the job and try to make sure the market rules in place that assure that California has a strong energy infrastructure.

So I'm glad to be here and look forward to the discussion. And thank you very much.

FERC CHAIRMAN WOOD: Thank you, Joe. Our fourth and final member, Suedeen Kelly, is in Russia today. I guess that's the other bear republic.

(Aside comment.)

FERC CHAIRMAN WOOD: I think it's a republic. But she sends her -- she emailed me and sends her regards to everybody and looks forward to -- concerning the issues we discussed today.

There's some great new members here at the PUC and I'd like to ask them if they have any remarks.

Dian Grueneich, from the PUC.

CPUC COMMISSIONER GRUENEICH: Thank you. I'm very happy to be here with both my colleagues from the Public Utilities Commission as well as the Energy Commission and FERC and the ISO. And I want to, first of all, say that I'm very sorry that we won't have longer together. But I have had a fortunate few months with you and very much enjoyed your collegiality. And I hope that our paths will continue to cross in the future.

And I feel honored that I already consider that

Nora and Joe are good friends, that I've had the ability to go back to Washington a couple of times already and meet with them. And I'm happy they're here.

And one of the things that I intend to do as a Commissioner is certainly to keep up regular contact and discussions with our federal colleagues, that I think that that's extremely important to do. That I come with a view that we may end up with different conclusions about where we need to go, but we need to have a very professional, respectful dialogue.

And then oftentimes if we start off with different views about where we need to go, if we've developed a professional, collegial relationship, we can end up with a compromise that really meets goals from all different viewpoints. And that's the perspective that I've brought to my entire professional career and that I certainly bring to this type of situation where we have the interests and the responsibilities of the Public Utilities Commission looking out for protecting the ratepayers of California, ensuring that they have adequate supplies of electricity.

We have the perspective of the ISO also to be looking out for reliability.

We have the perspective of the California Energy Commission to help in the planning of our resources.

And then we have the perspective of FERC that's

really looking at things on a national level in trying to ensure on a national level that we have adequate protection.

Each of those agencies and organizations obviously have slightly different perspectives. And it's not surprising to me that we are still at this stage with somewhat different views of how to approach it.

So I look at today as an incredibly important time for all of us sitting here to hear from who are the real experts out there to tell us what they see as the issues, what they see as the barriers. So collectively we can try to being together our responsibilities to work out a situation.

But, again, I come to this Commission saying that I'm very honored to have been appointed to this position, but it brings a real responsibility. And I think that we are all aware of it, that we're here to serve the residents and the businesses of the State of California and to make sure that we act and that we act soon enough to have the type of reliable supplies.

The other thing that I wanted to mention is that I have really pledged as a Commissioner to try to make sure that we have the infrastructure we need for California. And that includes not just existing power plants, but also investment in new power plants and new transmission lines.

And so I'm very, very interested in resource

adequacy policies for the state that will secure that investment, that I think that that's been one of the model areas of leadership for California that we've been willing to say we will step up to the plate and have the infrastructure and investment needed. And so I certainly intend to work to have policies that will encourage that investment.

And, in particular, one of the areas I think that those of you who know my background know that I am very much a supporter of renewable development in California. I've put particular emphasis already and will continue to do it on looking at what is the transmission line infrastructure that we need in California to make sure that we can really develop renewables to the potential that we have.

That just yesterday Governor Schwarzenegger, in really the ground-breaking climate change policy that he announced, he emphasized that he stands behind not just our commitment to have 20 percent of our renewables -- 20 percent of our resources served by renewables by 2010, but he is really pushing us to get to the 33-percent mark for renewables. That is going to take new transmission lines. That's going to take a lot of planning and a lot of really working together. And this is an area in particular where it's going to take work between FERC and the California PUC. And I look forward to working with my colleagues at FERC on

this area.

So I'd just like to close with welcome to everybody and I look forward to the discussion today.

FERC CHAIRMAN WOOD: Thank you, Dian.

And the Governor's most recent appointment is John Bohn. John, we're glad you're here today, too.

CPUC COMMISSIONER BOHN: Thanks very much. I didn't realize that I was coming into a postwar environment. I'm grateful for that. Reconstruction is always more fun than the destruction that precedes it.

I've spent a lot of time so far in my brief tenure here trying to get up to speed on some of these issues. And I look forward very much to the discussions today. It provides a very good forum with a series of excellent speakers with a lot of substance. And I'm looking forward to listening.

FERC CHAIRMAN WOOD: Thank you, John.

And our colleague, three years ago the Governor put John Geesman on the CEC. And John, I know, has been involved in a lot in facility siting. And I have to say is a credit to both the prior and current administration how much focus there's been on getting the permitting processes really streamlined and done. And I know the CEC has a big role in that, and I appreciate you all's leadership on that. And I'd like to let you make any opening comments, as well.

CEC COMMISSIONER GEESMAN: Well, I thank you for that. And I certainly welcome you to San Francisco.

I share the disappointment that you and Nora mentioned that more hasn't happened over the past several years. I think it's comparatively easy for the political appointees on each of the Commissions to agree on the need for an accelerated approach to infrastructure development, but we need to recognize that each of the three Commissions and their staffs have enormous amounts of institutional inertia associated with them. It's very difficult to break through that.

The Governor has made, I think, a bold leadership proposal to try and clean up the permitting process for transmission infrastructure in California. And I think that we should take advantage of that leadership to move forward. A lot of our physical infrastructure requirements are within the jurisdiction of state government. And I think it's up to us to clean up our own processes in order to right that situation.

I'd also note that the comment to that Dian made. The Governor made a very impressive commitment yesterday, it was a reaffirmation of the same commitment he announced in the budget documents in January, to carry our renewable energy program from a 2010 goal of 20 percent to a 2020 goal of 33 percent. I think that's the way California is going

to break through its NIMBY problems in terms of the siting of new electrical generation.

And, as Dian mentioned, that's going to require a completely new approach to the way in which we addressed our transmission needs.

I think that FERC's litmus for our seriousness as a state government in addressing transmission infrastructure should be how well we respond to the Governor's leadership in reforming our permitting process. And I think the state should have a comparable litmus with respect to FERC in how effectively it can respond to the requests that the Energy Commission, the Public Utilities Commission, and one of our investor-owned utilities have made to create renewable trunk line, transmission tariff instrument.

We are going to need that type of facility if we are going to build out our transmission system and develop fully our renewable resources.

Thank you.

FERC CHAIRMAN WOOD: Thank you, John.

And last but not least, like any good stool there are three legs. And the three legs in California electricity that make it work are two Commissions we've just heard from and the important player, the Cal ISO. At its new CEO is Yakout Mansour who's also a new father.

CAISO PRESIDENT MANSOUR: Thank you.

FERC CHAIRMAN WOOD: So congratulations on --

CAISO PRESIDENT MANSOUR: Thank you, Mr. Chairman. Yeah, thank you.

Just while I was getting ready to prepare my notes for today, last night I went home. And my baby is about four days old. And my wife had a shirt on her that said, "Supply."

(Laughter.)

CAISO PRESIDENT MANSOUR: And the baby had a T-shirt that said, "Demand."

(Laughter.)

CAISO PRESIDENT MANSOUR: And she is from the industry. I said, "Is that the must offer that you get soaked with then?"

(Laughter.)

CAISO PRESIDENT MANSOUR: And I did take a picture, so for those of you who want to actually see it, I have it with me. So that would be a good talking speech.

But two years ago I was actually in this very room and I was there speaking to the three Commissions. And I was actually honored at that time to be the only nonCalifornian in the entire agenda. And I think someone noticed that and did something about it.

So today I am really proud to be a part of the California team. I always admired California's effort in

moving things forward, where, in spite of the successes that we're not quite pronounced in the last few years coming after the crisis, you know, there's a lot of negative things that were mentioned and actually forgetting what good has been done even though it is not enough. But that's a fact of life. Others can make mistakes and can try and try again. But when California kind of make a mistake it makes more news than anyone else.

I would like to touch on the three issues related to infrastructure quickly, from the ISO perspective, and hopefully will put some kind of focus on the discussions we'll have for the rest of the day.

First, on the resource adequacy, as you all know California has a particularly low load factor. It stands today at around 60 percent or so. Therefore, one can argue that capacity should actually come at a relatively high price, yet un- -- that is my definition -- yet under the current market design capacity is treated virtually as a free product in the current market design.

Now this raises concern among investors, and they are being vocal about it, and will create greater challenge with each passing summer if we do not address it properly and promptly.

The address these concerns, we considered at the ISO three of -- some of the following approaches. I will

just attach on three that you can take as some of them -- one of them is one end of the book and the other one is the other book -- the end and maybe some in between.

The first approach which President Peevey touched on is let the energy market handle it. That's one, in theory, at least one of the approaches. And that's basically economic grants in the form of payments above the short-run marginal cost to cover the long-run fixed cost of capacity.

Unfortunately, the limited demand elasticity which even, in spite of all the efforts to do something about it, is still very limited in elasticity, the long investment lead-time and the limited volume of the ISO energy markets could result in severe scarcity pricing in the short term. We've been there, and I don't think anyone has an appetite for this kind of approach. And so from a priority point of view this particular one did not stand high in our thoughts of a viable approach.

A second approach is to establish an explicit capacity incentive mechanism, and that's what we refer to as capacity markets, on its own. And that approach calls for additional payments, outside of the energy price, based on targets established by some form of central-planning criteria or the center-planning entity. And that's what the PUC is trying to do.

The challenge, of course, in this approach is how those targets are determined and how can we be sure of the market response to the incentive? We are in a tight situation. And in designing a market and waiting for a response the time of waiting is a time of a possible crisis.

So when we get to something new and design something new we really have to be sure that it will produce the results we like to see.

We are in the middle of redesigning the market in California. And all of you, or most of you, are familiar with MRTU. If the resource adequacy issue is not resolved properly before we start that, MRTU will not work and no market design will work. So that would be a waste. And that's where the sensitivity is coming from as to how we approach and what approach we take.

We have been monitoring very closely all the approaches of this type in other parts of the country with interest. But, frankly, I've yet to see a sure success in those environments leaving aside the challenges that are specific to California.

The ISO management, and this is a -- by the way, this is when we say the challenge is not like here, you know, it's not going to work. But obviously it needs a lot of work before we say, "Yes, this kind of design and that approach will work."

The ISO management will propose to our Board of Governors the establishment of a small blue ribbon panel of experts to evaluate capacity market designs in detail and determine their suitability for California and to address the long-term capacity issue of the state.

Our goal is to reach a conceptual consensus by the fall of this year. We don't have a lot of time to spend. We're not going to spend another year or two at least to get to conceptual consensus as to what the right design is. Should there be a capacity market, if we decide that that is the right are, and what it is, we see that the ISO as the operator and facilitator of that market.

Now the third approach is a transitional approach. And that is basically to deal with the specific issue that we see we are facing today, which is shortage. The third approach is to compel the load-serving entities through the regulatory framework and possibly state legislation if the regulatory framework does not apply to some of the entities to satisfy the long-term obligations. And that's -- when I say, "long-term," it's well beyond one year -- according to a set criteria and guaranty of cost recovery.

Now there might be -- it might be necessary to impose some exit-charge or alternate mechanism to protect the consumers against cost shifting should direct access resumes in a meaningful way.

The ISO management believes that this approach is a workable transitional approach, but this transitional is underlined. So it is not like we say that let us take the easy road forever. But even if we design a market today -- if we start designing a market today and it will come to a conclusion and file it and have approval for it in about a year or so, and then put it up, and by the time the market responds, and actually put the steel in the ground, it's probably going to take another three or four years. We cannot afford three or four more years of waiting. And some transitional approach is necessary in that respect.

Fourth, something that is dear to a lot of people's hearts is the must-offer obligation, which is widely important and necessary in the short term, really has failed to incent proper investments in new resources. We do not see it as a sustainable solution, but we do not recommend lifting it until a workable alternative, even in the transitional side, is in place.

It is the kind of thing that I would say it's a blessing and a curse at the same time. I must also emphasize, again, that that the objectives of the MRTU are not going to be achieved unless that issue is resolved. That is from a capacity point of view from a resources side.

On the second part of the infrastructure, which is the transmission adequacy side, the annual congestion

management cost and inspite of about three and a half billion-dollar investment in transmission over the last few years, the annual congestion management cost of the ISO is steadily increasing and actually reached close to the $1 billion mark last year.

The majority of that is liability must run, minimum load compensation categories, and the list goes on. Some are telling me that ISO congestion cost is too high. Yes, it is. But this phenomena is nothing new and was not caused by the restructuring of the industry.

Generators often ran in every utility I know of in the vertically-integrated structure inefficiently to back up transmission deficiencies. But the difference is the cost is now transparent and people see the actual cost. The cost is quite significant.

Progress in this regard has been hampered by an old aged debate over whether planning criteria should focus exclusively on economics or reliability. I, frankly, am looking for the person who invented that debate to do something about it. With the latter, which is the liability seeming to have been adopted as a higher priority. So if you want to push something forward quickly, you say it's reliability. If you want to defer it, you say it's economics.

Now, long-term planning leads have to go back to,

again, to what it was meant to be. It was meant to be meeting needs from resources in the future in a reliable and economic, most economic manner. So economics and reliability have to go hand-in-hand. And that distinction of what is in for reliability and what is for economics is quite strange to me. It has been strange. I've been vocal about it for the last number of years.

Take the reliability must run as an example. It is contracting with generators to be available to back up transmission for reliability reasons. That's all that is, reliability must run. But it is far from cost effective in most of the cases, if not all.

Now is that reliability or economics? Well, let us debate on it for the rest of our life, but life has to go on.

Now to deal with this issue, the ISO management intends to develop a more proactive approach to transmission planning and will present it our board in the near future. We realize that the PTOs, the transmission owners, do not have actually all the information they need from us, from the ISO, to guide their own planning efforts. We intend to fill this gap very soon. My colleague, Armie Perez, will speak about that in the upcoming panel.

To just to make that work I really plead to all the regulators in the room to work with us on expediting and

streamlining the regulatory process for project siting and approval. With hundreds of millions of dollars cost of congestion every year when every year of delay is just one year too much.

It is not the kind of thing, you know, you delay investment and you're talking about just the interest and money. Once you've spent the money on this congestion management tools, it's a fund cost. And that is too much for consumers.

The last point on the transmission that I have -- I sound almost like a broken record for all my career -- is the West wide long-term transmission strategy. That continues to be essential to California and actually probably most, more important to California than anyone in the West that I know of. And I did not change my mind just because I'm now in California. You heard me before.

The California ISO for the last number of years invested significant efforts in trying to get a meaningful regional process going. Knowing that there is a filing by Grid West with FERC under consideration, I will not get into too much of the details respecting the process, except to say that if the road we have been taking for the last five years does not produce results in the next few months, we will have to explore other avenues.

The last point I would like to bring to your

attention is the integrated planning and opportunities for improvement. With the industry restructuring and the unbundled, the unbundling of resources from transmission, somehow the integrated resources planning concept has been lost and needs to be revisited and reestablished in a new forum.

These are the two bookmarks, which is -- one of them is build and they will come, and the other end is wait until they come -- is satisfactory. We need really to find and to work on what is the proper midpoint.

In conclusion I want to quote two famous people. One of them is a French journalist from the 18th century, by the name of Joseph Josbel (phonetic). He said, "Statesmanship is the art of understanding and leading the masses. It's glory to lead them not to where they want to be but to where they ought to be."

Now in more recent times Jack Welch said, "Leaders are those who take the people to where they've never been before."

Chairman Wood, thank you for four years of great leadership.

(Applause.)

FERC CHAIRMAN WOOD: Thank you, Yakout. I'm sitting here struck, as I sit in a state where the Austrian-born movie star is the governor. And I sit there

and think the hardest job in America is one that is filled by an Egyptian-born Canadian here in California.

(Laughter.)

FERC CHAIRMAN WOOD: We are the world. All right. I thank you for teeing up some of the very crisp issues here very succinctly as the leader of the organization that has to really operationalize what all of us in the regulatory arena are trying to formulate here to further the public interest under our charges.

So with no further ado, why don't we start as we always do, in our infrastructure conferences, with Jeff Wright who is head of our Office of Energy Projects, Infrastructure Division, giving an overview of the energy issues facing the state and the region.

CURRENT INFRASTRUCTURE AND SUPPLY AND DEMAND

MR. WRIGHT: Thank you, Chairman Wood. Given I have about two minutes, according to the schedule, I'll try to be quick.

My purpose here today is to give a quick snapshot of California's infrastructure, primarily its electric infrastructure.

California's generation capacity has grown about 16 percent since the year 2001. And the predominant growth has been in natural gas-fired capacity which now makes up 54 percent of the fuel mix. The only other fuel source to show

any relative growth is renewables during that time which increased to six percent of the generation capacity from six percent of capacity to eight percent.

From January 2001 to April 2005 there's been a net increase of over 8,000 megawatts in generation capacity in California; 11,700 megawatts of in-state generation capacity has actually been added since 2001. Ninety-five percent of this new capacity is gas-fired. Retirements totaled 3,750 megawatts of capacity between 2002 and the present, almost all of which was gas-fired. And I should note that California's neighbors in Nevada, Arizona, and Baja California added about 13,800 megawatts of capacity over the same period.

Looking ahead an additional 6,000 megawatts are expected to come online in California by December 2008. However, this will be offset by over 3,000 megawatts retirements resulting in a net addition of only 2900 megawatts of capacity.

Outside of California, Arizona and Nevada are expected to add 1500 and 2300 megawatts respectively of capacity by 2007.

And another 900 megawatts is expected to be available in Utah by 2010.

Now of these total generation additions, in-state and out-of-state in the West, 83 percent will be gas-fired,

12 percent coal-fired, and five percent renewable. Coal-fired generation will be built in Arizona and Utah.

Taking a quick look at the age of California's generation fleet, we see that 17,300 megawatts of the generation capacity is 30 years or older. This represents 26 percent of California's generation capacity. Ninety-five percent of these plans are gas-fired and represent almost half of California's gas-fired generation.

The CEC's integrated energy policy report, 2004 update, noted that another 9,000 megawatts of capacity attributable to aging generation units are at a medium or high-risk of retirement by 2009 due to their low efficiencies and high operation and maintenance costs.

Even more ominous is that the 6000 megawatts of this capacity in the service areas of SoCal Edison and San Diego Gas and Electric, which will face severe energy shortages in the coming summers.

But before leaving generation, I'd like to point out that natural gas does account for and is expected to continue to be the fuel that generates the most power in California.

However, California cannot meet all its needs with in-state generation. In 2002 and 2003 over 20 percent of California's total power was generated outside of the state. And this does not include the coal-fired plants at

Intermountain and Mojave, which are physically outside of the state, but inside the L.A. DWP and Cal ISO control areas.

Given this level of imports, substantial in-state construction of generation capacity would appear to be needed to meet increasing demands while more transmission will be needed to allow imports to meet those needs.

Turning now to electric transmission, this map shows projects, including merchant transmission, that are greater than or equal to 230 kV and have a scheduled in-service date between now and the year 2014. The projects on the map represent a total of 856 miles of new transmission lines, greater than or equal to the current kV. This represents an increase in transmission mileage of less than five percent over the next ten years.

The WECC lists only 427 miles of new projects greater than or equal to 230 kilovolts. It would appear that for the load growth that California has seen more transmission in the state will be necessary to haul power, not only from new in-state generation, but to also accommodate a necessary increase in imports.

The completion of the upgrade of Path 15 December 2004 has increased the summer operating transfer limit between Northern and Southern California from 3,950 megawatts to 5400 megawatts, reducing congestion on this

path. However, upgrading Path 15 just changed the major north/south congestion path to Path 26.

A major Western transmission project is being considered that would deliver more power to California, the Frontier Project. This project contemplated by the Rocky Mountain Area Transmission Study contemplates building two 500 kilovolt lines in various combinations that would total about 1300 miles, crossing Wyoming, Utah, Nevada, and California. The estimated cost is approximately $3.3 billion.

The Frontier Project can save California as much as 325 to $400 million annually thorough access to winds and clean coal generation. The project could increase the transfer capability in California by 500 to 3,000 megawatts. Of course, complementary transmission improvements would have to be made in California to get this energy to the market.

Now looking at the coming summer, Southern California is expecting congestion problems in its Southern California import transmission area around the area south of Lugo, Path 26, and north of the Miguel Substation. Because imports are a major factor in meeting the demand of Southern California congestion has to be closely watched since it will limited imports into the region. Imports from one source will necessarily limit the ability to import from

another source.

This slide shows a seemingly unrelenting rise in summer peak loads. In every year from 2001 to projections for this summer, the peak load has increased. The 2004 line is not on the chart but the diamond you see there shows the all-time peak load that was set in September of 2004, which was not due to excessive heat. As we see even a normal summer this year is projected to set new highs. And it emphasizes the urgency again to seek a generation and/or transmission solution in order to satisfy California's energy demands.

This slide has a little deeper focus on the potential problem area for the summer, Southern California, namely south of Path 26. We see that SP26 has a strong dependence upon imports. That is without imports demand in SP26 will not be met. The chart shows the forecasted demand and the expected supply. What it does not show is the capacity requirement, which is demand plus the minimum operating reserve requirement. If there was a one-in-ten conditions of summer, that is a summer reasonably hot, the reserve margins would be 4.2 percent in July, a negative .7 percent in August and 2.1 percent in September.

Switching the focus a bit to hydropower, this is an important component of California's generation both as native generation and as an import. From the Pacific

Northwest this winter we saw mixed hydro results since last year.

The Pacific Northwest saw relatively little snow this winter. The May snowpack for 2005 is below 70 percent of normal. And the April-to-September stream flow forecast for the Columbia River is roughly 70 percent of normal.

The Pacific Northwest is a region which is highly dependent upon hydropower. And hydro constitutes 80 percent of the generation capacity in Washington, Oregon, and Idaho.

California typically imports six to eight percent of its electricity from the Pacific Northwest. An increasingly native load and reduced stream flow will limit the amount of low-cost hydroelectric generation available from the Pacific Northwest.

On the other hand, our good news, is California is actually awash with hydropower as warm rains and high temperatures are quickly depleting snowpack and normal hydro conditions are anticipated for the summer and fall.

The 2005 net monthly electric exports from the Pacific Northwest to California are expected to be between the 2004 and 2001 levels. I'd note that these are two of the driest years in the last 45 years. And basically 2005 will make that three of the driest years in the past five years.

California can expect to receive between 65 to 75

percent of the amount of hydroelectric generation that it normally receives from the Pacific Northwest. And on a critical point if it's warmer than normal in the Pacific Northwest in June 2005 the Pacific Northwest is expected to utilize all of its resources to meet its native load.

Dry weather is not the only threat to hydro imports from the Pacific Northwest. The upward trend of the solid red line indicates energy demand in the northwest, while the downward trend, the solid blue line, shows that there is a correlating decrease in the amount of power available for export to California. This implies that, as power available for export from the Northwest to California decreases, California again must either contemplate building more in-state generation or through added infrastructure receive a greater amount of imports from the desert, southwest.

Changing gears and taking a look at natural gas's role in the energy picture, between 1993 and 2005 gas demand increased by 26 percent, a rate of about two percent per year. The increased demand was fueled primarily by the electric generation sector.

Electric generation demand for natural gas increased by 68 percent over this time or a growth rate of 4.4 percent per year. The industrial sector's gas demand increased by 30 percent or 2.2 percent per year. The

electric generation sector's demand now accounts for 31 percent of the total demand for gas in California. And the electric generation sector's demand will continue to increase. In order to fuel the demand for new generation around an additional one-half bcf per day of gas will be needed for the new plants expected to come online.

Now this slide gives you several comparative statistics on natural gas. But of note here California gas consumption constitutes 11 percent of the total U.S. gas consumption but contributes only two percent of the nation's production, meaning that obviously the vast source of California's gas comes from out of state.

Also 15 percent of the United States imports from Canada go to California, while 20 percent of U.S. exports to Mexico leaves the U.S. from the State of California.

Taking a look at California's source of natural gas you see that California is dependent upon pipeline capacity originating in Canada, the Rockies, and the Southwest.

California has 8.3 billion cubic feet per day of interstate pipeline capacity that delivers gas to its borders.

However, due to increases in natural gas requirements in California, as well as in surrounding states, this capacity may not be adequate to serve

California's future natural gas needs. California can receive 6.8 billion cubic feet per day from the interstate pipelines with an additional one-half bcf per day from in-state production.

The receiving capacity is below the 8.3 bcf of interstate pipeline delivery capacity. But currently California can meet demands that are in excess of its receipt capacity by utilizing in-state storage.

The trend in gas imports from Canada and exports to Mexico does not bode well for California's gas supply. Canadian imports to the U.S. as a whole have declined as the western Canadian sedimentary basins matures and production flattens. Also a more robust Canadian economy is keeping more Canadian production at home.

On the southern border, notably in Baja California, Mexican gas consumption is increasing in part due to new electric generation which can benefit the United States, specifically California. Hopefully, when Mexican LNG comes online significant volumes may be exported to be U.S. and find its way to California. And without going into any of the merits LNG may help California.

A maximum of about six bcf per day may be available to California from planned LNG import terminals to be located in California and Baja California. And these volumes could be used to offset declining Canadian imports

as well as declining U.S. production.

And I would note, number one, the Baja, the Semper Shell project, is actually under construction. And, number two, the offshore terminal, Chevron/Texaco's terminal offshore Mexico, has gotten all its necessary permits and is prepared to begin construction.

In sum, California continues to grow and therefore requires more power. In order to meet its power needs a combination of conservation, demand-side management, in-state generation, as well as increased transmission to relieve congestion and to permit increased imports will be necessary.

It would be particularly important to receive increased imports from Arizona, Nevada, and Baja California and from more distant states via projects such as the Frontier Project as hydropower imports from the Northwest looked more problematic every year. Also with the continuing bias towards gas-fired generation, California would be well served to embrace new sources of gas, like LNG, to meet its rising electricity demands.

That concludes my remarks. Thank you.

FERC CHAIRMAN WOOD: Jeff, thanks. Before you step away, the Commissioners and Yakout, any questions for Jeff on that? We'll just have those available during the day, and we'll use this information back and forth. Great.

Jeff, thank you very much.

Now as our final of the opening panels here we have a presentation from Jim Detmers, the VP of Grid Operations at the Cal ISO. And Jim is going to talk about the outlook for this year and next, as well as talk about some of the Cal ISO grid operations issues that he's seeing that are germane to what we're talking about today. So welcome, Jim. Good to see you.

GRID OPERATIONS AND TRANSMISSION EXPANSION PLANNING

MR. DETMERS: Thank you very much, Chairman and Presidents, Commissioners, and all. Thank you very much for allowing me to come up and talk. I am suffering from a little bit of allergies and hay fever and the like that happens out in the Folsom area. Hopefully, that doesn't affect our new CEO and the new boss. And hopefully it doesn't interrupt the supply chain, because I now know where the supply has to come from. So hopefully I'll be able to meet her soon and we'll be able to carry on with keeping the lights on for this summer.

I appreciate the comments, Chairman Wood, with your three Rs. And as I was driving in this morning, I also had three Rs. And this is the last day of school for my children. And so they were all interested in making sure that they had met their reading, writing, and arithmetic.

But my three Rs come in three different factions

here. One of those is, as you all know, that I'll always say reliability. I talk about that in actually the two forms. There is grid reliability and that is the responsibility of the California ISO. And there is service reliability and that is making sure that there is sufficient resources to be able to supply whatever the demand is on the system. That's one of the Rs that is on my list.

The second of those is risk management. And as I take a look at what we've done entering into this summer, I think there has been an enormous effort to make sure that we are dealing with the financial side of risk. Have we done enough to make sure that we're protecting customers from blackouts and the risk of blackouts? I still think there's a tremendous amount of work that needs to be done that comes in the form of infrastructure. It comes in the form of being prepared.

And that goes to my third point of being responsive. As we all know, going back through the energy crisis, one of the failures, as I looked back, was a lack of responsiveness that comes in the form of what was happening in the industry. It comes in the form of the state's response. And I believe it comes in the form of the FERC response as well. And I don't think that that's something that's unknown. But responsiveness is definitely something that we have to take a look at, especially with the

conditions getting tighter.

I think there has been an enormous effort undertaken to make sure that we're prepared for this coming summer. And so I think we have to take a look, looking at the grades of how we've actually done. And I think that's really what this comes back down tom is have we made the grade. Have we made the grade as an industry? Have we made the grade -- when I talk about that we hopefully are all looking for straight As, or what-have-you, as my children like to indicate.

Have we made the grade as the State, and the PUC, and the CDC, and others? Have we made the grade as well on the FERC side? Have we made the grade as the ISO? I don't think we have the answers as to whether or not we're going to be able to see our report cards here, not at this time. I think the report card is actually going to show up, at least with regard to some of these grades, at the end of this summer or sometime during this summer. I think it's a little bit early to tell whether or not we've made passing grades, as well.

But as far as effort, individual effort, I would definitely have to say I have seen that improve. And so with that good improvement, I will have to give that a much better than a passing grade.

As far as teamwork as an industry and organization

as an industry, I think there's a lot of work that does need to be done on that front. So I wanted to start off with that, because that's really what this all comes back down to is we have to deliver results. Effort will not mean anything unless we can actually get to the results that we need to get to. And so I'm going to give you a -- are we up there -- a brief presentation.

Thank you very much, Jeff, for stealing most of my thunder. I appreciate that when I can always get up in front of a crew and someone else talks about Path 26 and Path 15 before I do. And so when others are actually seeing that and speaking to that, that means that we are out there on the education front. People are learning. The industry is learning, and we are moving forward.

Are we moving fast enough? That's the question. Are we moving fast enough to keep pace with the growing demand, not only for this summer or 2006, but to be able to keep the lights on in the long term and make sure that we can do that at reasonable prices, something that will keep California, as well as the United States, in the world market. And I think we definitely have some challenges on that front with all of our eggs in the natural gas basket at this point in time.

What are we seeing for the summer of 2005? Load is growing. We see that. How it's growing, where it's

growing is significantly different than what we've seen in the past. We are seeing a tremendous amount of growth come on, three to four percent, just within the California ISO.

Just outside of California in Southern Nevada, in the Palm Springs area they're still seeing load growth in some places in excess of eight and nine percent, sometimes ten percent, just outside of California. That is tremendous. Most of these areas that are now growing are very intense of air-conditioning demand.

But what we don't have in the way of being able to respond to this demand, which is only there roughly for one to five percent of the time out of the year, we have no control over that air-conditioning demand. The industry has not moved on that. So demand response is definitely one of the components that we need to look at as a solution and we need to get on with that. We need to make it happen.

I think you've all seen this before about where we've been. The unique factors that are included in this show the reduction in 2000 and 2001. What was that reduction? That was discretionary load. That was load coming off with the threats of blackouts. That wasn't just a matter of how much blackouts that we were actually implementing. That says that we had at least eight to ten percent of demand that is actually discretionary out there on this system. We need to be able to tap that, but that's

not the only thing. And we need to move forward with that.

Our generation picture and the previous slide did indicate this. We do have diversity, but probably not enough, especially when natural gas is setting the price of electricity and electricity is setting the price of natural gas. Both of those two things are impacting each other.

I don't think that there is an unlimited supply of electricity. I know that for a fact. And I know there's not an infinite supply of natural gas, as well. So how did we get to this condition of the extremely tight supplies? It really comes back down to some basic facts. And that is we are retiring very close to what we are growing in the way of new generation.

The fleet inside of California that the ISO manages is very old. And it will be retiring, as Jeff indicated in the last presentation. It will be retiring. We cannot expect to continue that course to hold these 40 and 50-year-old generations.

Talking about children, as well I always like talking about the 40 and 50-year-olds. And I'm not talking about the people I'm talking about generating facilities, not the 40-year-old generation, because I have to include myself now in that the equation. And that just happened last year, by the way, again.

But, anyway, this is a troubling state that we are

in right now. We are in a state where investment is not being made. We do not have clear signals. We do not have a clear structure in place so that investment can come and invest in the new generation, new transmission, the new demand-side programs, all of those things that we're saying that we have to do.

So are we meeting the grade? I think we are falling a little bit short here at this point.

No, I'm not going to back up. Imports, yes, we are dependent on imports. Luckily for this coming summer we did what all good engineering firms can do. We increased capacity using remedial action schemes. We increased capacity where possible throughout the southern portion of the system. And we will be stressing that system to be able to hit those peak demands. It will be stressed.

If anybody doesn't think that it gets hot in summer, you have to take that back. It doesn't rain in Southern California. Well, that song is now gone, as well, because they had 30 inches of rain in Southern California.

Is the only concern just a heat wave coming on for Southern California? No. The 30 inches of rain actually has increased the growth under most of the right-of-ways throughout Southern California, almost in excess of three feet of growth that, should we have fires, could present some problems for us. That will impact our ability of

bringing in the power across those congested interfaces, and it will stress it even more.

You've all seen this. And is the capacity enough? Well, I think this talks for itself. If you take a look at some of the Eastern markets and what is happening, they are also coming down in the way of very large margins, getting closer and closer.

The margins as far as resources, transmission, and any demand-side programs is not sufficient. And it's not here in California.

This is the bottom line. There is no excuse for this. We have -- we left the energy crisis in 2000 and 2001. It's 2005, and we still have not figured out. We need to enter into a summer of operation with more than a 409-megawatt margin for a one and two condition. That's unacceptable. It's unacceptable on all fronts. And we need to -- there's no reason for it. There's no excuse for it. The industry needs to step forward and solve this problem.

We thought we had a confidence problem or a crisis of confidence coming out of the energy crisis. Well, I'm questioning that right now before we actually enter into this summer or you can look forward into the summer of 2005.

The summer of 2006, potentially as much as 1700 megawatts of new generation should be added. However, there's at least an equal amount that could be retired, if

not more. We're still working on the resource adequacy process, awaiting a decision on that front.

And at the ISO, as we get more nervous, that's when you'll hear, as Yakout indicated, we need to explore capacity products, a capacity auction, and capacity requirements. All of those need to be in play. We should not tease, threaten. We need to work together as a team. So have we made the grade as working together as a team? We'll find out.

The import picture for 2006, we did increase capacity for 2005, Path 26, we increased it over 400 megawatts. South of Lugo, same thing, 400 to 600. The Miguel congestion point, that was increased another 400 megawatts or so. And these are all rough figures. Total simultaneous import into Southern California was also increased about 500 megawatts.

We are, in effect, taking out the margins of this system to be able to operate, to be able to keep the lights on, and keep that supply running. Will we be able to squeeze out any more for next year? The answer is no. That's done. So if we are expecting to get more imports into Southern California next year, that will not happen. New generation, whatever the generation is that's required to get these margins back up must be built. And it must be built between now and next summer. And we need to have that

focus right now to make those decisions.

I wanted to touch just briefly on the indicators that should make this move, something that does have a return. It has a bottom line. As Yakout indicated total congestion cost about a billion dollars. It was actually in excess of a billion dollars last year. And it's increasing. That doesn't take into account the interzonal congestion coming on the interzonal interfaces on our tie points. This is only the congestion within California, within the California ISO control area.

Reliability must run, 550 million. Transmission has to be there for that. Transmission has to be there for congestion, as well. Is transmission the only solution? No. Transmission, resources, demand side, and a very effective market structure. All of that needs to be in place.

And I already talked about the demand-side programs. I can't say enough about this. But we have to figure out ways of opening this market. This market is not open today. And there needs to be incentives. There needs to be things done to help us fix this one-to-five-percent problem that were dealing with over these summer months. We only peaked -- we broke the record seven times last year. Seven new peaks were generated.

If I had a thousand megawatts a week we could have

easily accomplished those peaks without any sweating and without any nervousness in the ISO control room.

Going into this summer we should have adequate resources to meet the demand for a normal condition. However, if things are adverse, we do not have enough and we will have to get into the interruptible programs, the other adverse mitigation steps that we'll have to take.

There's many other dynamic factors included in what we are assessing as we go forward. Our supplies from the Northwest with the drought condition that's continuing, this is the fourth or fifth year of drought conditions occurring in the Northwest. That will have impact on California. And we are dependent on that.

We are also dependent on conservation. If we are all not coming together with the conservation message the general public is not going to respond. We all have to be talking about making sure that demand side and conservation is there.

Again, the industry, if it wants to return a good report card at the end of this summer, or next summer, or anything going forward, or it actually wants to graduate and leave school, and actually go out there and get into the real world, it has to get active. And it has to start to focus on 2006 and beyond.

And I think lastly -- and this isn't just directed

at FERC, but it's also at all the regulators, FERC and the PUC and all -- we need to provide some principles and certainty as to what this state of the markets is. And that will take cooperation of the ISO and the industry. But we really have to put some principles in places that can guide the industry. And I don't think we've yet identified with those principles are in the vision of the future.

And so I'm encouraged that we've got new people onboard at the ISO and throughout the industry, and I think we can do it. And we just have to put our nose to the grindstone and start working on this.

So with that I'll close the presentation and open it up for questions.

FERC CHAIRMAN WOOD: Jim, on the second-to-the-last slide you had, could you go -- is it -- can you go into that, or not?

MR. DETMERS: Yes.

FERC CHAIRMAN WOOD: The second paragraph, "Physically install capacity, but not contractual arrangements." Walk me through what that means.

MR. DETMERS: What I'm saying there and as most of you know that have been involved in entering into this summer operation, every year we do a summer assessment where the engineers, both of the IOUs, the ISOs, the Energy Commission this year, the PUC, all got together and they

took a look at the physical connection to the system and made general assumptions on with the import picture is looking like, to look at the physical portion of the system.

What we do not have the capability of looking at today, and we attempted to do that through a summer simulation, but I have less confidence in that today than what I did yesterday based on what these suppliers, as well as load-serving entities had done in that simulation. But I have no way of looking at what all of the contractual or financial obligations are until I get to the day-ahead market the day before I actually operate.

And so since I don't have that until the day before that's not enough time to react or do something. We need to have that well in advance of the actual summer of operation to be able to demonstrate what is actually committed to serving California load.

FERC CHAIRMAN WOOD: Do some of the other ISO RTOs in the country get that information, or is that a fault we've got everywhere?

MR. DETMERS: I think that's a general fault across. The eastern interconnection and the other ISOs are much more dense packed, and there's more openness to the flows -- or less -- less dependency on the import flows are. And so given those conditions throughout and the difference in ours, ours has just come to light sooner than where they

are.

FERC CHAIRMAN WOOD: On the last slide with regard to the vision thing, what -- our Commission has done a number of orders on market design in the past four years, five years actually. What is it, I mean, what is it, from your perspective as a grid operator, what principles have not been laid out on the table? I don't really know that on some of these things we're in any disagreement with the state on really the market redesign issues. I know there are some skittishnesses still about the exact role and contours of mitigation which I think as a resource adequacy picture becomes a lot crisper and clearer of the concomitant mitigation regime that would work, but yet continue to be pro investment would become clear. But what, from your perspective, as you put that slide together, were you thinking is absent? And be brutal and honest in this stuff, because we need to know, because we always think we're being so clear; and then you talk to people who are really your friends and they come say that's a muddled piece of mush.

I mean what are you really trying to say here kind of shocked, but tell me.

MR. DETMERS: Yeah. What I'm talking about here is to get back down to some of the basics. I think SMD, all of the approaches that we've taken, I think they're great ideas, but they might have been put out too far, too far in

advance of what was realisticly achievable.

I think we need to look at what are the principles that we need to step into as we go forward, maybe an objective one to two years out.

FERC CHAIRMAN WOOD: Something prior to MRTU going --

MR. DETMERS: Prior to MRTU, yeah.

FERC CHAIRMAN WOOD: So basically it's that timeframe --

MR. DETMERS: And --

FERC CHAIRMAN WOOD: -- that we're --

MR. DETMERS: Well, as well as MRTU, --

FERC CHAIRMAN WOOD: Yeah.

MR. DETMERS: -- and be realistic about that as well. So we need to be honest and realistic about what can be achieved and make sure that we set those stakes and achieve those stakes.

Capacity is definitely one of the things that has to be defined. We have no capacity products on the books in the West as we speak. We need to have the products defined. We need to have the obligations of the capacity identified. And we need to have -- if there is a residual market mechanism that's put into place that also has to be defined realisticly and implemented expeditiously.

So some of these things need to be enacted

quickly, but instead of just putting the stake out ten years out into our future, we also have to look at the one year to five years to so on and make those decisions that is actually going to deliver what we need.

FERC CHAIRMAN WOOD: Is the stakeholder process at the ISO sufficient to be and inquisitive enough to generate consensus behind those short- to medium-range principles?

MR. DETMERS: Yeah, today it's not in that shape. But we've taken on an initiative with Yakout's direction as one of his four top principles that we need to look at of reformulating what goes into our stakeholder process to make sure that we can get that back on its feet.

It was definitely thrown, thrown off the road going through the energy crisis and everything since the energy crisis. A part of doing that requires closure of the past in order to get everyone back to the table again. We still haven't closed the past.

And that goes back to one of your points, one of your Rs as well that needs to fit in. If we're going to rebuild and restructure and set this industry on its feet on solid ground, we really need to close the past and get to that as soon as possible.

CAISO PRESIDENT MANSOUR: Chairman, maybe I can add to, you know, some of the confusion that we see today, where people really need some guidance or at least the

principles are clearer.

Over the last two months I've been talking to just about everybody I can put my hands on or can agree to talk to me, whether the IOUs, the generators, the serving entities, the municipalities, and the agencies, and so on.

You go back to pre-crisis, the ISO function has a major component of it that is running a major market. The balancing market was a major market. It was about 30 percent or so. And the ISO function was accepted as it has reliability and it has a market component. So that's how people perceive the ISO. That's part of their functions.

After the crisis we depended more on bilateral, the majority of it, and the ISO market shrunk to about below five percent. And we basically were expecting people to go on contract, longterm, bilateral.

So when you get to -- they said, okay, now that solves part of the problem. Now you get to the longterm, now contractual -- contracts for capacity. The load-serving entities will tell you, well, how can I go for 20 years when I don't know the division that's for retail access. How can I commit for 20 years of not knowing whether that's going to be my load or not, especially after they got out of really some financial difficulties.

So they are very nervous about getting into longterm contracts. So they go shortterm. Now the

generators will tell you, well, how can I build iron or put iron in the ground not knowing what my future is and how could I get financing. So I'm not going to be able to get enough financing if I don't have that longterm contracts.

Now to increase things further in difficulty, you get to the must-offer situation, which we are depending on even now, before even the beginning of the summer, we have seen days of underscheduling and not enough bidding in the market, even a slow market, where the ISO had to go to the must-offer. So it's one of those things they say, please, don't lift it now.

But at the same time having it in, there is reliance from the load-serving entities on the fact that there is a must-offer situation. So the lights are not going to turn off. The generators are, especially the new generators, they say, I'm losing my shirt because no one is contracting with me and taking it for granted.

And when you get in the circle you almost want to break it somewhere, where you say that is the break point. I'm still to find it.

So you could see the vision of what is the future of direct access, what is the role of the ISO, how much of the ISO market is actually market and the rest is contractual, what's the combination. All of those things are kind of details in division that the market is waiting

for to make the right investment.

CPUC COMMISSIONER GRUENEICH: I guess I have somewhere between a comment and a question. Maybe it was you, Pat, who said that I can rely upon being a new commissioner for about a year to ask questions. So I'm still going to be doing it. Which is that our governor sent a letter to President Peevey -- was it -- last year, the year -- on the need to really move ahead with resource adequacy.

And while I haven't been involved in any of the workshops and hearings day to day, I'm aware that here under the sponsorship of the PUC we've had a whole number of workshops on trying to deal with this issue.

And I'm just concerned that the -- not have a process is sort of -- fails to be coordinated if we're now going to be starting a process on resource adequacy at the ISO. And I am fully ready to accept that I don't know the details of it, but I wanted to say as a PUC commissioner I see a great need if we're going to sort of move the process and the stakeholder input from something that was under the PUC's overview to something now under the ISO, that we not cause a great deal of frustration to the stakeholders of instead of we're realisticly moving into sort of the next stage, what we're really doing is bureaucratic turf fighting and just having, you know, everybody have to go through the

process again.

Now I've gotten to know Yakout fairly well over the next -- over the last few months. And I think we can avoid that, but I think that it's going to be extremely important that we show coordination among the agencies and we show that we are not simply going to be repeating elements that we've already done.

And I had a chance to talk with Joe Desmond earlier this week. And I think it will be very important to really give sort of the report card of what have we accomplished over the last year; and that what are the very precise remaining actions so that there is some certainty and belief by stakeholders that this is really moving us forward just as fast as we can.

The second element I wanted to just point out is that wearing my Commissioner stake -- my Commissioner hat now, I think that from the Commission's viewpoint we're going to really want to be conscious of are we doing what we can to divide -- to design systems that will minimize stranded costs, that I recognize that it is a very real issue, that we're not able to sit here today and say what's going to be the future of the core/noncore market in California. There is some uncertainty.

One of the risks that we may well face is that there are going to be some stranded costs. But especially

as I said, wearing my role as a commissioner, looking at ratepayer impacts, I see that we're going to want to be centrally involved in thinking through how we can minimize that risk.

MR. DETMERS: I would have to agree with you, Commissioner Grueneich, on your first point and your second point. We do not want to travel the road already traveled here. And I don't think we're saying that at all.

This is just to take it the next step, to make sure that we can have this completion.

And, again, there is basically three components. One is the obligations that we've been working on in resource adequacy. Then how do we actually accomplish that mechanism-wise and product-wise. Those are the additional elements that we still need to move forward on.

In the workshops it was very, very clear that we needed to move forward on those other elements. And so what we're doing as the ISO is volunteering and stepping up to that request out of the workshops. We plan on continuing that coordination. We've been successful to this point. We can't let that stop. In fact, we need to actually expedite moving forward all together, as well.

We do need to design, on your second point, systems to minimize stranded costs. I think we first have out know whether we're in a position where that's even at

risk. I think one of the facts that we have in front of us with a fully-tapped transmission system, if that's the stranded cost that we're talking about, I don't think that's even a condition.

If we're talking about stranded cost into new generation, then we have to make those decisions of how does that actually function with investment into new generation, especially given the conditions. And I think we've learned enough.

And we have to acknowledge what we've learned about stranded costs through our previous experience as well as where we are now in this market. And there is a lot to learn.

FERC COMMISSIONER BROWNELL: I have a couple of questions. You talk about certainty, and I'd like to drill down a little more on that with a specific eye towards some of the things we've heard regarding imports and people's reluctance to come to this market.

What are the very shortterm, this-summer kinds of things we need to do to address people's unwillingness to come? There was an article in the Vancouver paper about, I think, a pretty major player being unwilling to participate in the market.

Have you modeled that? What is the impact if people really decide not to come and is there anything that

we can be doing either individually or collectively to bring some certainty to the rules that would make this more of an attractive market, particularly for the next couple of years?

MR. DETMERS: Should we have the shortages, depending on where the price goes during the shortages both inside of California and outside of California, I think will bring the -- the money will drive where the supply goes.

However, there are entities in the Northwest that have indicated that they do not want to do business with California. And those entities need to be dealt with --

(Laughter.)

FERC COMMISSIONER BROWNELL: I think that's what they're afraid of, Jim.

MR. DETMERS: Should I be clear here? Anyway, -- I didn't realize I was being like Letterman up here, or something.

Anyway, no, when I speak to that there's two sides to this. We have to have definitely the buyers engaged in this to the fullest extent required. Now most of the buyers throughout California have indicated they're fully resourced.

We just completed the summer simulation, and I don't have confirmation of that. And so, in fact, many of the buying sides, not all, so I don't want to just

broadbrush everyone, many of the buying sides here within California have met their obligations, but others have not.

Both that side as well as the supply side, to and including those suppliers to our Northwest that we need to rely on, some of those were transmitting in excess of a thousand megawatts each into California last summer. That is in our physical assessments, not in any financial assessments as we go forward.

California is dependent on those imports, very dependent this summer, in particular. And so we need to sit down with those people and work out the issues, and not just sit back and expect them to come to the market.

There has to be steps taken right now to work out those issues. And so hopefully over the next week the ISO will be engaged with those buyers and sellers that haven't met or are not indicating that they are going to be participating in our markets.

FERC COMMISSIONER BROWNELL: Well, candidly, I hope in your role, as the independent overseer and manager of the grid that, one, you're not going to let the buyers tell the story of being fully resourced when they're not. I mean maybe we need, you know, kind of a little report card on them. And the public perhaps needs to know who's fulfilling those responsibilities and who isn't.

To the extent that there are shortterm rule

changes, we talked about this a couple weeks ago, that we're prepared to respond quickly in the event that that's needed.

So if there are some shortterm fixes, we need to know that soon. Keep us posted on the conversation next week. We'll get some folks here. Maybe they could come. This is not a conversation we ought to be having in August or September.

MR. DETMERS: I agree.

FERC COMMISSIONER BROWNELL: A couple of other questions and maybe, Yakout, you want to address this. The RMR addiction is just that. It's an addiction, and I'm not sure how we can wean people from that.

And I really -- underscheduling was a huge problem, when we look back on the market disaster of a couple of years ago. And do we have sufficient penalties in place for the underschedulers? Because there were a couple of chronic underschedules. It wasn't a mistake in any sense of the word. How can we disincent them from engaging in that kind of behavior?

MR. DETMERS (speaking away from the microphone): Well, you know what, I didn't -- you are right. My hands -- part of the problem.

(Laughter.)

CAISO PRESIDENT MANSOUR: That's okay. How many I'm going to lose, yeah.

Right to the point, first, the underscheduling, it's kind of -- when you say balance a schedule, it's quite something that you have to qualify.

In the day-ahead, the entities give you a balanced schedule between supply and demand based on their forecast.

Now when you come to realtime, our forecast usually is fairly accurate. And the forecast on the other end is on the low side, the conservative side.

So even though the day-ahead gives you the balance based on the schedule within the realtime. There are days here in the summer, a couple of weeks ago, we were ten percent underschedule, I believe. Is that correct? Okay. So we would have to go to about 4,000 megawatt from must-offer.

We're going to get to the point where maybe we may have to go to evaluating whether the schedule is balanced or not would be based on the ISO forecast, not the entities' forecast. And if you ask why, well, we'll just show you the record.

The record shows that the ISO forecast has been very accurate in the day-ahead, while the entities do not -- are not as such. So we would have a case that should meet our forecast, not yours.

So that's one avenue. We hope that we don't go that way, but that is one possible thing that we'll go to.

The other more addiction is -- I would, and I'm not -- I would never blame anything before me. I'm at the ISO today, and I will say we'll take part of the responsibility of the situation of that amount as the ISO.

And that's when Mr. Perez is going to talk about transmission planning, we have to step forward and say: Here are the transmission plans that the ISO sees that will remove congestion and remove the need -- or reduce the need for the RMR every year, in a published plan; and expect the transmission orders to come forward and say: Here is my plan to meet it and, if not, we're going to find someone else who will do it. But we have to take a proactive approach in dealing with RMR, a responsibility for the ISO and not just to leave it, because we could -- frankly, even they themselves don't have all the data to go by.

So that's why I'm saying we will take responsibility and we'll make sure that it gets resolved.

FERC COMMISSIONER BROWNELL: Maybe we ought to also publish the list of people who just don't forecast very well. That would be an interesting thing to share with people.

CAISO PRESIDENT MANSOUR: Now that's a real mark on the one, again.

(Laughter.)

FERC COMMISSIONER BROWNELL: Just one quick

observation about the stakeholder process. I think that it hasn't worked as you would like it to work and it's going to take some time to get it back on track.

One of the observations -- and, by the way, it's not unique to California. Everybody at various moments is having a challenge with the stakeholders' process. And one of the challenges is it takes a long time to get through the stakeholders' process. And the more dense and complex the issues, the longer it takes.

Given the short timeframe that we have here, I think like any business, we need to look at different tools. And we may need to look at ways that we can expedite the stakeholder process on some critical shortterm issues.

And I'm thinking of the response actually of the state commissioners, the RSE and SPP, who actually put some models on the table for pricing and didn't wait for the stakeholder process. They were pretty inclusive, but they put some models on the table, decided on one, and presented that to the board.

So rather than wait for the models to emerge slowly and painfully, we might want to have various people just put some models for solutions on the table and start the discussion there.

Ground-up building is important, but I don't think there's time in some of these issues to do that kind of

ground-up. So that's just different tools. And stakeholders' process, I think, need to be more flexible than perhaps they have been. They become bureaucratic institutions really fast. It's amazing. But, anyway, so that's just an observation.

MR. DETMERS: Yeah. Thank you, Nora. And so I'll take that as the challenge for the industry, that the industry needs to come up with some of those solutions to help us out. To think that we have the only solution either within this framework or at the ISO, we need the industry to be engaged, to come up with those solutions and to make those complete proposals for the industry. So, again, thank you.

FERC CHAIRMAN WOOD: Any more questions or comments for Jim?

Jim, the last years I've known you, you've done a lot and you've handled it in a very professional manner and kept, kept the lights on. And you haven't changed a bit. So keep up go good work.

MR. DETMERS: Thank you very much.

And I did want to close in one comment. Since this is the last day of school, we need to put everyone into summer school here. Sorry about that. But everyone's now enrolled into summer school, since we don't have the grades met yet, so. Thank you.

CPUC COMMISSIONER GRUENEICH: And is it recess time now?

(Laughter.)

FERC CHAIRMAN WOOD: And our recess will be six-minutes long, folks. So go to the lockers, to the bathroom and back here in six minutes. And if the next panel could come forward, please.

(Recess taken from 10:59 a.m. to 11:10 a.m.)

FERC CHAIRMAN WOOD: Take your seats, please. While everybody's taking a seat, I will like to reintroduce Jamie Simler, who's head of our Western Division Region for Regulation at the FERC. And Jamie will introduce the panelists for the morning panel.

Jamie.

SUPPLY AND DEMAND SIDE: INVESTMENT AND INFRASTRUCTURE

MS. SIMLER: Right. Thank you.

This -- actually our first panel of the day is going to be looking at supply, investment climate, credit issues, a whole host of things as to what we need in California to get investment made.

And our panel is going to start with Steven Stoft, who is going to sort of set the background, if you will, for capacity markets, resource adequacy. And from there we're going to invite each panel to give three-minute remarks. And then we'll open it up to Q&A from our Commissioner,

staff, and the audience.

So with that, we can get started with Mr. Steven Stoft. Thank you.

MR. STOFT: Someone put my talk on a computer here, and then during the break they took the computer away. And I'm not sure I plugged the cable into my computer, but I'm not seeing it on the screen. Does anyone know how to handle this? If not, I'll talk without my slides.

CPUC PRESIDENT PEEVEY: Go to the next.

MS. SIMLER: Oh, we could do that, but Mr. Stoft was going to give about a 15-minute presentation, kind of setting the whole framework, so I'd like it for him if we can wait one minute to see if we can get a slide. If not, you may have to proceed.

MR. STOFT: Okay. Well, does anybody know where that computer went?

Oh, the projector is off. That probably explains why we're not seeing it.

FERC CHAIRMAN WOOD: Can we get the projector turned on, up there in the back?

Okay, he says a couple -- one minute.

(Pause in the proceedings to set up the projector.)

MR. STOFT: Well, maybe I should begin. Is there an opinion on that? Well, no, we don't have everyone here

anyway.

CPUC COMMISSIONER GRUENEICH: I'm here.

MR. STOFT: That's mine. They took to that one and turned off the projector, so.

MS. SIMLER: The man in the booth is -- so maybe you can start, and then we'll just --

MR. STOFT: I'll just do a -- yeah. I had a couple of nice graphs here that are going to be hard to explain without the pictures, but I'll just start and do my best here.

First of all, I'm an independent consultant. I'm helping the PUC. And the first thing I should say is that all these opinions are mine and not attributable to the PUC or anyone else. In fact, it's quite possible that none of them coincide with the PUC, so just take this as my own experience.

I have been working on revenue adequacy for the last four or five years. When I first wrote about it in my book -- in fact, the central section of that book was about revenue adequacy -- no one wanted to listen because we were having too much generation built and no one thought it could possibly be a problem. So I'm quite pleased that now people recognize that it is and will pay attention. And I spent the last year working in New England on it.

The problem that we face is that the market does

not send a signal for adequacy. The market is an energy market. It is not a reliability market. Adequacy is equivalent to reliability. If the market could do adequacy, it could do reliability. And we know it can't, because it has absolutely no information about what anyone is going to pay for that.

So we have to have administrative inputs that determine adequacy and use a market to buy the resources, but the input has to come from the administrators on this part of the market.

I'm an economist. I love markets. I love to have them work, but they can't do magic. So that's the root of the problem.

The next thing to understand is what is missing from this market that needs to be replaced. And there's three payments that come out of a market: The payment of variable cost. This was on the nice graph. It had good colors, too.

The variable costs are covered. They cover the fuels costs. Then we have what we normally term info-marginal rents in economics. That's the money that the nuclear unit makes when the peaker sets the price, for instance. The peaker will set a higher price than the variable cost to the nuclear unit. They will make money and cover their fixed costs.

But then there's a final slice of the equation which has problems, and that is often called scarcity rent. And that's the prices which are above the variable cost of a peaker. And this is the piece that you have to keep in mind. This is the piece that drives this whole discussion.

It's when prices are high enough that a peaker can cover its fixed cost. That part of the revenue stream is not controlled properly by the market because when the price goes above the marginal cost of a peaker, we don't -- the market doesn't really know where to set it.

There's sometimes a little window of opportunity where there's a little demand-side action, but there's very little of that. We don't know how to set the price up there, so we have various methods of doing it, which are good and useful, but it turns out that that piece of scarcity rents needs in California to be around $3.6 billion.

You can get that number yourself by multiplying the cost of a peaker, which I take PJM's number which is quite a bit lower than New England's, to be cautious, $72,000 a megawatt year, multiply it by the amount of capacity we'd need, about 50,000 megawatts. That amount of money is in -- should be in the scarcity rents when we have just the right amount of resources. That $4 billion -- $3.6-billion-a-year slice is not well controlled by the

market. And in all the Eastern markets they've calculated it in, it's too low.

It's too low by more than half. In New England it looked like it was about a quarter. In PJM it looks like it's about a third. In California, the price cap is lower than back East. It could be even less than that.

Now that's the amount of money -- it's not the amount of money that the market pays all the time, but that's how much it would pay if we had the right amount of generation.

Now if it's paying a third of what is needed, when we have the right amount of generation, do you think investors want to build the right amount of generation and cover a third of their fixed costs? No. And that's the problem we're facing, is replacing roughly two-thirds of that four -- three and -- $3.6 billion.

Interestingly, I've just come into the California situation. I've read all the literature I can. I found no mention of the fact that the goal was -- the projector's turned on. I think I'm --

FERC COMMISSIONER BROWNELL: There you go.

MR. STOFT: Oh, okay. Wonderful. Hang on just a second. We're almost there. There. Okay.

Here's the slide.

FERC COMMISSIONER BROWNELL: Not everybody can see

the slides. Are there copies of this anywhere?

MR. STOFT: No.

FERC COMMISSIONER BROWNELL: Okay.

MR. STOFT: I'm sorry.

FERC COMMISSIONER BROWNELL: If anybody else has copies, it would be nice to have them.

MR. STOFT: There are simply no copies. I can give you one.

Okay. The top slice is the scarcity rents that I've just been talking about. There's three things you need to know about them, and they're shown in the diagram.

One is that these rents occur on peak. Until you run out of peakers you have competition, and the peakers keep the price down to the marginal cost of a peaker and they don't cover their fixed costs. These rents only occur on peak. That's the only part of our market that's messed up, is the on-peak part.

There's about $3.6 billion. That's the second thing to know.

And they should go to all generators. Well, not quite. All generators that are there on peak. Now mostly generators show up on peak because we ask them all to, but some of them are clunkers and don't make it. They don't get paid by the energy market.

And when we replace the missing $2 billion, they

shouldn't get that money either. They wouldn't have got it in a good energy market. They shouldn't get it in our replacement mechanism to handle adequacy, because this $3 billion, it does more than just pay the rent. It sends economic signals. You've got $3 billion of price signals being sent for performance. If you take that away from the market, it doesn't work right. Those are crucial market signals; you don't want to kill them.

So those are the tasks that we have to accomplish.

Now "mitigation" is one of the terms used to explain why we don't have enough money there. It's really more fundamental, but I'll go with that.

There's two problems caused. One is that you're missing the two billion and the other one is you don't have the right incentives. That's just what I said on the previous slide, so we'll go on.

You've got two solutions. One is you've got to get load to pay more. They can pay it through higher price spikes, but that causes trouble. Through an ICAP market, through longterm contracts that are being pushed here, to energy options. There's a lot of possibilities. You can put it back different ways.

The other problem is inducing performance by the generators, getting those price signals right: Options help you; longterm contracts help you with that because they both

put pressure on peak times to perform; and capacity markets, if they're designed right, can do that. So there's different possibilities here.

A big problem is, and I'm going to be fair about this, we'll have the generator side later, load doesn't want to pay this money. That's where you're going to have trouble in the design. You haven't begun to face that yet. And that's where it gets difficult. I just went through this, was grilled on the witness stand. I know all about this.

You're going to have to require load to do this. That's why it's a revenue-adequacy requirement. And that takes penalties. Every ICAP market in the East has a penalty if you don't buy your ICAP. Any approach requires penalties, even the forward markets, the forward contract markets where it's never been mentioned, I've just got word from the people pushing that that they realize they need penalties too.

Okay. If you're going to do this you're going to have to prove you're right. People are not going to accept this if you don't and you're going to have to know you're right. And it's going to have to be politically acceptable. You're going to have to start thinking about that.

People don't like this, so let me get out of it. So I'm going to repeat what I said at the beginning: Do you

really need penalties? Do administrators have to step in? Can't the market just do it for us?

And the answer is no. And this is the one slide I want everybody to take home and sleep on, because everybody says they believe this and nobody does.

Adequacy and reliability are equivalent. If you got one right, you'd have the other right. There is no difference. If the market could solve the adequacy problem that would be proof it could solve the reliability problem and tell us how much reliability we really want. But how could a market do that? It has no information about my desire for reliability or yours.

Have you ever thought of putting a price on it and has anyone ever asked you to? And if you did put a price on it, who would you pay?

There is no market for reliability. No reliability transaction is ever made by the ISO. If you pay them more and say, I want more reliability, they can't do it. There's no market signal, period. None. The administrator has to intervene in this decision.

The energy market works pretty well. The reliability market is totally broken. So don't look for an easy way out here.

Sorry. I've been saying this for ten years. And no one -- everyone says they believe me, and then they all

try and find the easy way out.

Okay.

MR. FLORIO: The microphone.

MR. STOFT: Oh, sorry.

Okay. How do you tell the penalties are right? There's many penalties -- there's many theories. The loads have a theory, and many of them: It should be less. And the generators have a theory: It should be more. And it will take many, many forms.

So the one thing I'd like to mention is the generators have a theory that capacity is a wonderful product and they know how much it's worth and how much they should be paid for it. This is nonsense.

(Laughter.)

MR. STOFT: No industry pays for capacity. You don't pay for bread factories, you don't pay for car factories. The consumer never pays for the factories. Why do we do it in electricity, because the demand side -- as Yakout pointed out, the demand side is broken. That causes the problem.

We pay because we have to make up what we didn't pay in the energy market because it was broken. Not because capacity has special properties and they deserve money, okay. So don't listen to that when they bring it up.

Okay. Economics has a pretty simple way to go

about this. If you have too little capacity, you pay too much. If you have too much capacity, you pay too little. That brings it into balance. That's what matters.

I'm not going to mention this anymore, but an important point is that if you do it smoothly, you'll get rid of the risk and you'll save consumers about half a billion dollars. You have a huge fringe benefit here if you pay attention to risk, so please do. But I won't tell you how now.

Okay. Now how do you get from penalties to installed capacity? Well, there's a missing link. You can say penalties, you can make penalties, but how do you know you have the right amount of installed capacity. You might have too many penalties, too few penalties. How do you figure that out?

Well, there's a standard way to work this problem. There's a curve, the fixed-cost recovery curve, that is there in every market. And people don't talk about it, but it's what runs the markets. That's in blue up here.

The fixed-cost recovery curve tells if you're low on capacity how much money they make. If you have too much capacity how much money they make. If you have the right amount of capacity, how much money do they make. This is the curve that is totally missing from all discussions in California at the present time. And it's the driving force.

It's how you get from penalties, which are necessary, to investors having the reassurance to actually invest.

They calculate how much fixed-cost recovery they will have in different market conditions and they look at that and they decide to invest or not. It's that blue curve they decide on. They don't call it that. They have their own ways of thinking about it, but that's the curve they use. And if we don't think about it, there's no way we get it right.

Now do other people think about this outside of California? You betcha. Okay. PJM breaks the curve into two parts. The fixed-cost recovery curve comes from the energy market and from their ICAP market, two pieces.

They look at both pieces and it looks like this. That's the energy part. And if you read that off, you'll find out that the energy part is only paying $28,000 per megawatt year when they believe they need $72,000 a megawatt year.

So that's their estimate there. They think they're paying about -- that's a little more than a third of what's needed there, okay. So they think about this curve.

The other part of the curve is their capacity market curve. You have to add to the first one to get the full fixed-cost recovery curve. They're trying out all kinds of curves. They do dynamics simulations. They think

a lot about this, okay. That's how they design their revenue-adequacy requirement.

This, the red line here is the one in New England. That's the sum of the two: Energy and capacity. The red line is the whole fixed-cost recovery as it changes from low capacity -- you see it's very high when capacity is low, very low when capacity is high. It's right in the middle.

We worry about the distribution of capacity levels because if there's a mistake, it gets very complicated. I won't explain it. It's a high curve. It pays plenty when we're short on capacity.

The judge asked everybody -- this is an exhibit 4. The judge, she asked, "Show us your fixed-cost recovery curves." And made all the people in the trial turn them in. Okay, it was our homework assignment. People think about this, even the judge, okay.

Okay. Any market has one of these. Top-down, bottom-up, longterm, options. They all have those. You've got to know what it is. Some of them, it's really easy to calculate.

The New England design makes it as easy as possible, because you actually just specify that curve and then you make sure it happens. Most of the other designs, you just do something else and you got to figure out what the heck's going to happen. It's a darn hard calculation.

No one has started the calculation. No one in California that I can tell has thought that they might need to start the calculation. Okay, they haven't thought about thinking about it.

Okay. Why think about these penalties early? Why not get your design, then think about the penalties later, because we don't like to think about penalties. Let's procrastinate. Okay. They're kind of nasty.

Okay. The trouble is that whichever path you go down, whichever approach you take, you might have different kinds of penalties required by that approach. You might have to have all hours' penalties and low. You might have to have few-hour penalties and real high. You might have to have seasonal ones if you do one design, or annual ones. That's makes a difference to your trading partners in the West.

You might have to impose them on the load and get the load, like with forward contracts, to penalize their suppliers to get them to behave. That's an indirect form. Pretty tricky.

You might not be able to calculate what the penalties are going to do, what fixed-costs recovery curve they're going to have, so how are you ever going to prove anybody got it right? You'd better think about this ahead of time, because this is the hard part.

Okay. Now we get to the suppliers, just to be even-handed. Okay. They don't like to perform. Of course the reason is money.

It turns out that if you pay for performance, like an energy market does, then the ones that don't perform don't get paid. That saves load money. Okay. We calculated it in New England. It saves them like ten percent of this all capacity market cost, something like that. That's why the suppliers don't like this, is because if the loads are paying less, they're getting less, okay.

So that's a little bit of a problem. That's been partly solved back East. They moved from ICAP. They used to just pay everybody. If they had a nameplate on their machine, that was good enough. If it said it was capacity, you paid them.

They went to UCAP. They said, no, if they're broken down, we won't pay them. Okay. That's performance based. It's a good step. They took that; they were on target. But it's not been good enough.

PJM is very upset that they're not getting the kind of machines built. It's not that they're broken down, but they're not getting the kind of machines in the market that they want. And they're going to a design where their revenue resource-adequacy market specifies this type of machine, that type of machine. It gets detailed, because

their incentives for performance were not right.

The ISO -- New England is also upset about that. They didn't like the way people performed in the cold snap and the fact that they hadn't made the right investments.

In the West you can't sneak by with UCAP at all. You're going to have to go beyond it, because you've got a lot more hydro, wind, and pollution limits. And in the East they can give a 90-percent UCAP to a wind farm that produces a 30 percent and nobody notices because it's so small, nobody's ever heard of it. Out here if you try that trick, there's going to be big trouble. UCAP is not going to hack it in the West. You've got too many nondispatchable resources, energy-limited resources.

People are thinking about this in California. This is where I want to give them credit. They are thinking about that and they are worried about that, and that's absolutely right.

You can build in this pay for performance in different ways. When you move beyond UCAP you could do it with the option approach. You could do liquidated damages contracts. They both pay for performance. But the incentive is based on your price-capped energy market, which doesn't have as much incentive in it as it ought to have. It's had its -- it's been sort of defanged, and it doesn't put on the pressure that it should.

With the ICAP market you can actually put in a full pay-for-performance incentive and restore what is missing from the original energy market. But you have a lot of options. As long as you make a good stab at that, you'll probably be okay.

Okay. Market power is the big bugaboo out here, and we understand why. Good reason. There's two approaches to market power. Everybody wants -- no matter what you're designing in California, they think the main thing it should do is handle market power. And it's important to look at that. There's two approaches.

One is you can mitigate market power. That's the approach that I was thinking about mainly right now, because that's what they're used to. And they want to have this bid-in-the-day-ahead-market requirement that's a lot like what they have now. And they looked to the East and they say they all have requirements to bid day-ahead. It's been completely misinterpreted here.

They believe that gives the Eastern markets control, physical control over their units and they can get the one they want. It's not true. I talked to the market monitors back there just to doublecheck. And they assured me that you can trade -- you can sell your power out of those markets and nobody touches you, okay.

So what good does their capacity market do them if

you can't control the capacity? Well, it turns out you can control the capacity when it really matters. If you have an emergency, they can recall any of their capacity. New England has never done that, but they could if they needed to. But they don't go meddling on a day-by-day basis.

Okay. The other approach to market power is way nicer. Instead of waiting for the disease to develop and then curing it with some harsh medicine, okay, you prevent the disease. You can change the design so generators don't have market power.

Longterm contracts put them in a position where it is not profitable for them to withhold capacity. They don't have market power. They cannot profitably raise the price, so they don't do it.

So you don't have to mitigate them. You don't have to screw around with the market. That's the way to do it. Longterm contracts can do that and the ICAP design, the newest ICAP design does that beautifully. It's probably even stronger than longterm contracts. Look to that part of the mechanism for taking care of your market power.

Okay. Oh, darn, now the slide's not working again.

Okay. This is the grand finale, okay. I have to have some of these artworks on my slides here.

The conclusion is: Don't try to reinvent the car.

That's what's going on here. You don't have time. Just buy a car and reinvent the wheel. You're going to have to reinvent some things for the West.

They put a lot of work back East into developing these things. They made a lot of terrible mistakes for you. You can learn from them. They're pretty advanced. They don't have your whole answer.

Don't buy a car without an engine. I think I skipped that slide, but the engine is the sort of penalties that drives this thing and that people are trying to sell you schemes that sound like they don't have penalties, they don't have a driving force in them. Don't buy a scheme and think you're going to run without an engine.

A real question out here, which we don't have to face in the East, is what about the 20 percent of the capacity we're going to buy outside our market. Are we trying to make the whole West resource adequate? What are we doing outside?

In New England it's real clear. We're making a deal with New York. We buy some of their capacity, they buy some of ours. We all get the right amount. It's fair trade, and there's not much of it.

Out here it's huge, and we don't have any cooperative thing going. We don't have an ICAP market nextdoor that's going to do the same for us, so what are we

trying to do with that? You better think about that.

The final point that got discombobulated here is don't -- if you think you want to control your resource requirement every hour, the whole requirement, which is more than your load, just re-regulate the market. If you want a market, just set up an intervention for when there's an emergency. That's what you need. And then you have our other power market control mechanisms, but don't go messing with the market every hour of the day.

Okay, that's the end.

MS. SIMLER: Great. Thank you, Steve.

And now we're going to turn to Mike Florio of TURN, who I think I saw nodding in agreement on some points, so we'll wait and hear.

MR. FLORIO: Yes. Thank you very much for the invitation to speak here. I think I know all the folks on the dias except for Commissioner Kelliher. Pleased to meet you, sir.

TURN is the residential consumer advocate group in California. I'd like to start out with something that many of you probably would not expect to hear from me.

Now we've talked a lot today about what hasn't been done, what remains to be done. We're often critical of what hasn't been done or how things have been done, but I just want to take a step back and look at the big picture.

About three years ago this industry in this state was flat on its back. We were nowhere. And in those succeeding three years a lot of things have happened.

We've gotten our longterm planning process reinvigorated. We've got aggressive renewable energy and energy-efficiency programs going. And we've made a lot of progress on resource adequacy. We've got one more decision that has to get out the door, but I think we're almost there.

A lion's share of the credit for that goes to this Commission, the CPUC, with the leadership of President Peevey and the cooperation of the Energy Commission, the ISO, the FERC. But now --

CPUC COMMISSIONER KENNEDY: We don't like it.

(Laughter.)

MR. FLORIO: I think it's -- you know, we always focus on the things we disagree on and we don't pay much attention to the many, many things that we agree on. And a great deal, a great deal has been accomplished.

We still have more to do. We've got more hard work. But I didn't want to let this moment pass without giving some recognition to what has really been a significant body of work in the last three years, more than I thought was really possible.

Now the issue here is investment and how do we get

it. And I think actually we already know the answer to that. Longterm contracts with creditworthy load-serving entities will get new capacity built in this state.

Right now both PG&E and Edison are out with longterm RFOs for new capacity, new steel in the ground. And while there's a lot of work still to be done on those, I can say with some relief that there was a very robust response to those RFOs.

There are a lot of people out there willing to invest in new capacity in California if they can just get a contract that's sufficient to support the financing of their project.

So it's working. The resource-adequacy framework that we haven't even finished yet is having the desired effect. We have to have a framework where LSEs are incented and encouraged and allowed to enter into longterm contracts that can bring on the new supply, that can keep the existing supply that we need. There are a lot of barriers to that.

One of the problems that I've been kind of a broken record about is that the existing resource-adequacy model only looks one year in advance. That's not enough time to get resources built. We've got to get that demonstration of resource adequacy extended out to the three- to five-year range, so that if we don't have enough to go around new things can get built in time to meet the

load.

And there are also some tough questions that both the CPUC and the FERC will have to deal with in terms of allocation of costs and benefits of new capacity. If only one set of actors in the market, the IOUs, are investing in new capacity, then you've got to take a careful look at the costs and the benefits and make sure those are fairly allocated.

I think Edison will be presenting you with an application very soon that will raise those issues and that will be a very important proceeding.

Now what about shortterm capacity markets? I have to say I'm delighted to see Steve Stoft here. We've worked together off and on in the past. He's one of the smartest and at the same time most practical people I've seen working. And when you can get the theory and the practice both going, you've really got something.

He scared me for a minute with that 3.6 billion number until I realized in California we're already paying a lot of that 3.6 billion through the contracts that are already in place, because we -- if anything, we need to get rates down in this state, not raise them higher. But I think we can do that if we get the structure right.

How's my time, Jamie?

MS. SIMLER: I think you're pretty much up, Mike.

(Laughter.)

MR. FLORIO: Okay. Okay. Can I just close with I think the kind of shortterm capacity market that Dr. Stoft has described can be a useful part of a resource-adequacy solution. I think it may even be a necessary component. I don't think it's sufficient. I think we need that longterm requirement and enabling of load-serving entities to enter into the kind of contracts that we need to create a stable market both for consumers and for suppliers.

Thank you.

MS. SIMLER: And next we've got Gary Ackerman with the Western Power Trading Forum, who I hope will touch a little bit on the Western market issues that Steve raised and a little bit hopefully maybe about the credit issues that Mike raised.

MR. ACKERMAN: We'll try and grab everything. Steve's presentation was very broad, so I'll try and bring in as much as I can. A very interesting presentation.

Thank you, --

MS. SIMLER: In three minutes.

MR. ACKERMAN: -- Commissioners and Yakout. My name is Gary Ackerman. I'm Executive Director of the Western Power Trading Forum.

Today -- well, I guess if -- Detmers, I think, put it out to you very clearly that, and I quoted it:

Investment is not being made. And, you know, if that's the title of his speech, which it wasn't, but I'll give it that anyways, then mine is: We're not making the investment grade in California.

In reaching that title let's work on some of the items I'd like to bring to your attention here today, three issues:

What's the dollar value of investment needed to, you know, bring California up to snuff?

What are the views of competitive procurement in the state? And the Western Power Trading Forum represents both buyers and sellers, so we have a unique situation here of having to represent and wear both hats at times.

And what do we need to do and what can you do as commissioners in your respective commissions to bolster liquidity in our electric energy markets, because that's something that's something that's desperately missing.

I hope I'll have a moment if not during my talk later during Q&A to talk about transition periods, because that's been brought up. And I think my warning here is beware of transition periods.

Joe Desmond testified at the Little Hoover Commission last week in Sacramento that California needs three and a half billion dollars of new transmission investment. And if you add to that the current short

positions of the large investor-owned utilities in California and, you know, reasonably price what that capacity would fetch, that would be another $2 billion now and probably a billion dollars a year for the foreseeable future. So add it up.

The grand total of our infrastructure price tag in California is almost $6 billion now and more down the road. You have to ask the question: Is that a large number? Well, when you don't have any of the money it's a mountain, not a hill.

It comes out to around $400 per California household. So when you put it on that basis maybe it sounds modest. But whether the number is either large or modest, the critical question is: How will that money get here? Whose balance sheet will be pledged, the utilities or the merchants?

Now we, as an organization, believe that the least cost and the most effective way to develop our infrastructure in California is through competitive markets. And that means competitive markets for new resources, reliability services, and retail electric service. I bring to mind what Steve had said a few moments ago that markets can do some things, but not all things. So I'll have to reconsider that statement in light of his comment there.

But we have a shaky investment climate in

California and it's in desperate need of reforms, but we see those reforms forthcoming from many of the dockets that are before you now at both commissions. That is to say, both the FERC and the CPUC. There are signs of improvement, but the growth in the state's population and the economy are outstripping our ability to catch up.

We are cautiously optimistic that California markets will provide the revenue needed to reward those parties willing to take the risks. We support a market design to be implemented at the ISO in the year 2007. And we also support the PUC's efforts on procurement rules, longterm procurement rules, and resource-adequacy framework. Both of those partly in place and more to come down the road.

Mike said that we were only one decision away from wrapping up resource adequacy. I think we're many, many decisions away from wrapping up or getting to a suitable end point, and maybe that's just the sobering thought to consider.

But let's get to the point. Without an upside for investors there's no reason for them to come to California. If we are able to -- or if we are able to attract investment, then we can move beyond the old way of doing things, and I call that the expensive way. The expensive way, you know, has its proponents. You'll hear from them

today. You always hear from them.

Yet the proponents have no response to the evidence we have shown repeatedly, since 1988, that even with the price explosion during the energy crisis, the market price of energy and ancillary services would have saved consumers in this state $34 billion.

You know you compare that $6 billion investment to the savings that could have been had, and it looks fairly modest.

Competitive energy markets work when there is enough volume, or what we use, the term "liquidity." When there's many buyers and sellers to transact in an open and transparent platform. That is how consumers get price discovery at the lowest possible rates. But volumes in the West are only slowly growing, recovering from the steep decline in 2001.

We believe there are three things that both of your commissions can do or at least consider in terms of sustaining growth of liquidity in the energy markets without considering capacity markets, which will probably be a separate topic of today.

First we need longterm, multi-year transmission rights which are essential to hedge the uncertainty of delivery costs from the source to the load.

Now FERC just issued a white paper on longterm

transmission rights to discuss the relative merits of two competing systems. One being physical scheduling as opposed to utilizing a congestion-management scheme. Whereas the former provides stability and certainty, it does so at an enormous opportunity cost, because transmission sits idle and remains underutilized.

We need to squeeze more juice out of the transmission system. Therefore, we believe longterm transmission rights with a suitable congestion management is the best medicine to help this problem along.

Second, we need well-defined trading hubs. This is a small item that sometimes gets shoved aside. It was attempted by the ISO as a transition as well as in its market design. But, to be honest with you, I could not tell you what the trading hub price formula is going to be.

And, as a result, the traders out there can say, I'm not willing to sign any contract going out two years or more because I don't know how California's going to price at the hub. I don't even know what their hubs are.

Now that doesn't mean that we're not working and trying as hard as possible to get some answer to that, but we do need a speedy resolution there. Please pay attention to that because trading hubs are needed now for traders who want to do deals down the road. If you want to have longterm agreements, the only way you can do that is

sufficient transmission with longterm hedging instruments and also with hubs that are well defined and you know how the prices are going to be calculated.

Finally, we point to the regulatory overburden. It's been noted here in many of your opening comments. The must-offer obligation, the price caps, and other items like that. We simply observe the number of firms that are unwilling to trade in the West or severely limited their risk exposure if they do trade. They are keeping an eye on us, but standing in the wings waiting for a better day.

Regulatory risk simply dampens the volume. If more power were traded, then it staggers the imagination to think about how much lower average prices might be and uncertainty reduced.

The number of suppliers selling longterm, fixed-price energy contracts would go way up and the average price to consumers down.

Thank you for your time, and I look forward to answering your questions later.

MS. SIMLER: Thanks.

Brian Chin with Smith Barney Citigroup.

MR. CHIN: Hi. Thank you. And I want to express my appreciation for giving me the opportunity to speak. I'm the Energy Merchant Equity Analyst, so I cover the IPPs with Smith Barney. And my colleague Greg Gordon is the Electric

Utilities Analyst.

We both look at the California market. And as we followed California over the last few years, the first comment I'd make is that the regulatory environment is moving in the right direction. We've seen a number of initiatives. We've met with several of you many times to get a sense that we think and we think investors also believe that the regulatory environment is moving in the right direction, but here comes the big "but."

I think the sentiment on the street with the investors that we talk to on a regular basis as the movement is progressing too slowly.

It is my opinion that the lack of a definitive market structure here on the interplay of a lot of these issues has made it so that investors are having a tough time really swallowing what the situation will be, especially with the looming '06 and '07 crisis that we all pay attention to out of the CEC's forecasts.

I think that it creates a lack of certainty around the asset investment process. And now there's a little bit of frustration as to are our generation investments going to be rate-based, are they going to operate in a more market-defined environment? What are the various incentives that the IOUs have in order to contract with IPPs versus build it themselves? Is that a really fair and balanced

decision that they have?

These are all questions that come up in investor discussions that we have on a regular basis.

And there's also a perception that the pace of checking whether there's a lower-of-cost or market-type situation here slows down the process a little bit too much.

What we can say is that with the issue of capacity markets, there is a very active interest among a lot of investors over what's going on back East. We wrote a report on capacity markets in April on PJM, and we got a lot of interest out of it.

When you explain the logic of reducing volatility in the wholesale market through incentivizing generation reserves to be maintained, it clicks with a lot of investors. You have the perception, and my opinion is this as well, that when you have an increased amount of reserve margins that are incentivized to be in place you lower volatility and, correspondingly, lower the costs of capital.

And any time you look at any other heavy industry, heavy commodity-sensitive industry that requires a lot of capital, you tend to find that there is a need for low costs of capital for appropriate financing.

One of the opinions I have is that it's very difficult to implement this type of structure regardless of how necessary it is, unless you're at the mid-cycle of

expectations. So when you're looking at an oversupplied market, you're going to have a lot more political opposition that basically says we've got enough reserve margins here; we don't need this type of market structure.

When you are in a short situation, like what we're facing here in California, I think it's very politically difficult to argue for an additional rate increase on top of what will be very high power prices.

So I think California might be in a little bit of a bind here and I think there are a lot of investors who feel the same way, so I'm not sure what the solution is, but there is that perception out there.

In my mind I think a longer-term capacity market option makes sense. And I'm just echoing now the sentiment of a lot of other folks, a lot of the other speakers here. But when we looked at PJM's market, when we looked at the ICAP proposal, at least in my opinion I think some forward-auction process that allows for construction-build signals to be done with a sufficient amount of time just makes a lot of sense.

I think that the RMR solution does address some level of revenue certainty, but the problem is that you don't have any price transparency around that process and it's widely perceived among investors as a Band-Aid solution. And it just contributes to the lack of some sort

of market structure that can be counted on and relied upon and ultimately invested on.

So to summarize, I think there's a sentiment that we need to have a little bit faster pace in terms of a development of a market structure. California is moving in the right direction, but we do see that '06-'07 crisis looming. And I think there's a little bit of hesitancy from the investor base out there as to how that will impact your decisions in the next 12 months.

And we do think the capacity markets are the right way to go. It just makes a lot of sense with the various investors that we talked to, but I think California will be in a tough position given that they are generation short as opposed to having a few more years of luxury, like the Eastern RTOs.

And with that I'll stop and look forward to answering your questions and entering into a dialogue.

MS. SIMLER: Great. Thanks, Brian.

Next we have Steve Schleimer with Calpine.

MR. SCHLEIMER: Thank you. Again my name is Steve Schleimer, and I'm very pleased to be here before you this morning.

I actually do have copies of some of the materials I'll be using, which I'd like to bring up and hand to you all or...

(Handouts distributed to the Commissioners.)

MR. SCHLEIMER: Just to give you a little bit of background, Calpine is an independent power producer with about 30,000 megawatts in operation. In California we operate about 5200 megawatts, representing about close to ten percent of California's peak and representing over a $5 billion investment.

Calpine's Geysers Facility is the largest-producing geothermal facility in the world.

During the last shortage in California in 2000 and 2001 two new Calpine power plants came online with about 1100 megawatts in time for the 2001 summer peak. Without these units there almost certainly would have additional blackouts during that crisis.

Now it's 2005 and again the state is on the verge of significant shortages on its electrical grid, especially in Southern California, as it's been well documented by now.

And again Calpine is bringing on another two power plants, this time for about 1250 megawatts. These two plants actually, for those in the audience, the handouts and those who have seen me over the last couple of months know I don't go anywhere without pictures of Metcalf and Pastoria.

These two power plants that are coming online, the green one is the Metcalf Energy Center. It's in South San Jose and it's about 600 megawatts. It just went commercial

last week.

The one in blue is the Pastoria Energy Facility. The first part of that is online and commercial. The second part is entering commercial operation next month.

Even though Calpine currently has no capacity contracts associated with these facilities, these plants are being included in the ISO summer 2005 analysis. And without them we think that Southern California, without the Pastoria Facility, would be in far more serious trouble.

This panel is about how to provide signals for new investment. And in our opinion, it's really about one thing, about doing one thing, and that's providing assurance to investors that they have an opportunity to recover their investment. This could be done through the energy market.

As we heard about, you know, there's politically -- thorough a centralized capacity market, through bilateral contracting. It could be done through ISO RMR contracts. You know, it could even be done by ratebasing generation. I mean there's a lot of people who have different thoughts on how to solve this. But whatever your solution is or your religion is on, you know, how you want to approach it, if investors don't think they can get their money back, they're simply not going to invest.

So, you know, what is the fundamental problem that I think you need to fix? It's the -- I call it: The

why-the-buy-the-cow-when-you-get-the-milk-for-free problem. It's the MOO, it's the must-offer obligation taken together --

(Laughter.)

MR. SCHLEIMER: -- with the price caps -- the must-offer obligation, the MOO taken together with the price caps, gives load-serving entities currently a free-call option on generation capacity. Then, in addition, once the call -- once my capacity is called on, I have to provide my power at a mitigated rate.

Load-serving entities thus don't have an incentive in this structure to purchase capacity because they get it for free. And the price mitigation is they'll never really pay me the value of the service I'm providing anyway, even if it has to be provided in an emergency.

Basically what it means, and how it's being implemented now, is that load-serving entities can enter into what's called Firm LD contracts from some amorphous plant somewhere. And, you know, I brought a copy of the EI Master Agreement, which is one of the Firm LD contracts that folks talk about.

And, you know, so load-serving entities can enter into Firm LD contracts from some amorphous plant out there. And the reason why they can do that is because the load-serving entities nor the marketer, in my opinion,

really need to worry much about whether the power from this amorphous contract is deliverable or not, because when push comes to shove they know that as a result of to the must-offer obligation and the price caps they get at this for free. So they can buy this and they can get this and don't have to worry about whether the capacity's going to be there or not.

So, you know, the why-buy-the-cow-if-you-can-get-the-milk-for-free is a problem. Now what is the solution?

Over the longer term, as we heard about, it's implementation of the resource adequacy, derivation of a capacity market, definition of how retail markets are going to work.

The PUC has gone a long way in developing the longterm procurement policy, but I think we need to realize that it's going to take several years to get to the end state.

I think you're going to find the current mitigations, the must-offer, the price caps, and all the are going to be slowly phased out as you start to see these other mechanisms start to be phased in.

And so, you know, the question is, is what to do in the transition. And I think what we need to do in the transition is one of three things. And that is if a generator is counted on by the state, or the ISO, or a

load-serving entity for providing a capacity service and it doesn't have a contract, there's three things that need to get done.

One is the utility needs to enter into a contract or the load-serving entity needs to enter into a contract.

Now there are issues about cost allocation there, because load-serving entities and utilities say they've done their fair share, others haven't done their fair share in getting local capacity. And, you know, I think that's a somewhat valid argument. And so the PUC I think has to deal with the cost-allocation issue.

If that's not going to be done in a timely manner, I think the ISO can enter into contracts. Expand the definition of RMR to include units that are needed not only for local reliability but for system-wide reliability needs.

Three, if you don't have load-serving entities entering into contracts and you don't have the ISO entering into expanded RMR-like contracts, I think the FERC needs to think about approval of capacity-based payments for the capacity services that these generators, especially, you know, like the Pastoria Facility that are actually providing a capacity service, that there should be some kind of capacity-base payment for that.

And, you know, just I'll wrap up by saying, you know, what I don't think is acceptable is to have

load-serving entities, you know, continue to rely on the must-offer, you know, to basically get the free capacity and so that they don't have to end up, you know, buying the cow.

So I look forward to any questions or comments. Thank you.

MS. SIMLER: Thanks, Steve.

And now we'll hear from Pedro Pizarro, load-serving entity, SoCal Edison.

MR. PIZARRO: Load-serving entity and utility, the double whammy. Good afternoon and thank you, the Commissioners and the staff, for inviting me.

I am Pedro Pizarro. I'm Senior Vice President for Power Procurement at Southern California Edison.

And there has been a lot of discussion about both the end state and the transition. I'm going to focus on four messages today that are really around the transition to a longer-term framework.

First, as we heard from Yakout Mansour and others earlier, CEC and the ISO have all concluded that new capacity is needed, particularly in Southern California for 2006 and beyond.

As Edison we continue to target filling our requirements for power through procurement; open fair, transparent competition. That's typically been from existing resources.

And, for example, we're going to be going back out to market probably in the next few weeks to launch an RFO for contracts under five years for our bundled customer needs. But we also recognize that our customers, along with all SB 15 customers, will be affected if there are insufficient resources to meet the needs of any one LSE. One, to connect the network. And, if anybody has deficiencies, the whole network is affected.

Second, as Yakout also said, we lack a market framework that will get the new generation developed without longterm contracts from load-serving entities. Under current market conditions, and I think, you know, we heard this from others, merchant generators and their banks typically will require longterm load-serving entity contracts to invest in new plants.

Now, moreover, while the PUC, as we've heard, is exploring establishing a capacity-making framework, this or any other longterm solution is going to take years to implement. Yet we need the capacity sooner than that. We need it now or certainly as early as next year.

It will take time to develop a market structure that can allocate costs fairly across all LSEs. They needed exists resources and incentivized development of new resources when they're needed.

So we at this point at Edison are very focused on

how we work during the transition period to make sure that the lights stay on for all customers, not only our own but everybody on the network.

A third point. SCE, as Mike Florio alluded to, is willing to enter into longterm contracts provided that the cost and benefits of such contracts are allocated fairly to all SP15 customers who are benefitting from these.

Now to address the reliability concerns expressed by the CEC and the ISO, we issued an RFO for new generating resources in SP15 on April 22nd. This RFO solicits offers for up to ten-year PPAs tied to specific new generating facilities that are deliverable to SP15.

Now such new plant contracts will likely carry higher costs than contracts with existing resources amortizing in this environment the investment costs over a ten-year contract.

Now it would not be fair for SCE's bundled service customers to be the only ones paying the higher costs for new plants needed to maintain reliability for the entire system. All SP15 customers should bear their fair share of the costs and receive their fair share of the benefits.

Now exit fees for future departing load will not suffice in this case because they will still allow an uneven cost allocation between our current bundled customers versus the other LSEs' current customers. We really worry about

how we make sure that the entire system is paying for the insurance needed.

Now our proposal is intended only as an interim approach until a market framework is finalized and implemented that can equitably allocate to all customers these costs for longterm system reliability and support developing the resources.

A fourth point. We will ask FERC to authorize through a FERC's jurisdictional charge recovery of the net costs of any longterm contracts signed out of this RFO from all SP15 customers. This will result in allocating the cost of bundled service, DA, community choice aggregation customers of the IOUs, and the customers of nonIOU participating transmission owners, nonPTO utilities, and other transmission users serving load and SP15.

With that in mind let me describe our next steps.

SCE is filing today an application with the CPUC requesting consideration of any contracts signed through this RFO process and requesting that the CPUC support at FERC SCE's proposal to allocate the incremental costs associated with the longterm contracts to all SP15 customers.

Now SCE will also be requesting to the PUC that in the event that FERC for some reason does not authorize such recovery, a CPUC order allow upfront the allocation of the

net contract cost to all SP15 customers within the CPUC's jurisdiction.

Now SCE would expect, given the timing required, probably expect a decision from the CPUC by year end. And if the CPUC approves our request, we would then be in position to make a FERC filing in early 2006.

Although PUC jurisdictional cost allocation would not cover all SP15 customers and is, therefore, less fair to those paying, we are going through the CPUC process first for a couple of reasons.

First, we understand that with such a unique proposal and such a transitional proposal, FERC may well want to see state level endorsement of this transitional approach. And we think the way to support that would be the form of CPUC action before considering the proposal.

And so, again, we'd want to make sure that the CPUC agrees with the option we're teeing up. If they reject it, we will, of course, you know, abandon this proposal. But if the CPUC endorses it, then we'd be in position to demonstrate to FERC that there is a state need being met.

Now in addition we would rely on the CPUC level approval by the end of the year to make final commitments to generators offering to build new plants as early as summer 2006. Otherwise, the longterm contracts would not be able to go into effect and the option for new 2006 resources

would not be viable.

We recognize that this proposal has elements that can and will be criticized. And, quite frankly, we're probably going to share some of this criticism. This is not a perfect approach by any means, but it is the best option that we could develop in short time to make sure that we at least are teeing up a real option for the Commission to consider, if indeed we are all concerned about reliability throughout SP15 as early as 2006.

Again, we don't view this as any template for the longterm. And we view this only as a transitional approach that can buy the state more time to develop a better longterm framework.

With that I'll stop and thank you again for the opportunity to speak today and address any questions later.

MS. SIMLER: Curtis Kebler.

MR. KEBLER: Commissioners and Mr. Mansour, good afternoon. My name is Curtis Kebler. I'm a Vice President in the U.S. Power Trading Group at Goldman Sachs. My responsibilities include monitoring and providing advice with respect to developments in power markets in California and the Western region.

As background, Goldman Sachs currently owns approximately 4300 megawatts of electric generation capacity, most of which is located in the Eastern U.S.

Goldman Sachs also recently announced the acquisition of Zilkha Renewable Energy, one of the nation's leading independent wind energy development companies.

In addition to the ownership of renewable and conventional electric generation resources, Goldman Sachs, among other things, also engages in trading and marketing of electricity and provides commodity risk management services.

With regard to who is building and what is the outlook over the rest of this decade, we anticipate that most of the new generation installed to serve the loads within the service territories of the investor-owned utilities will be built by independent power producers pursuant to longterm contracts with the utilities and possibly other market participants. Some new utility-owned generation is also expected to occur. Of these, Edison's Mountain View plant and San Diego's Palomar project.

The CPUC's adoption of a comprehensive set of procurement rules consistent with the requirements of AB 57 have provided the utilities with a regulatory framework necessary to support longterm contracts.

Over the past year or so, the CPUC has authorized a total of approximately 4500 megawatts of new generation to come online in the 2006-to-2010 timeframe. That includes around 1200 megawatts or so for San Diego Gas & Electric and around 2200 megawatts that represents the RFO from PG&E.

In addition to that, Edison has indicated that it is going out with an RFO for 1500 megawatts. So there's roughly 6,000 megawatts of proposed projects that would result in longterm contracts through the balance of this decade.

And so that is a full pipeline of projects that just about meets the needs of the state over that timeframe. So the key, as we see it, is having those RFO processes go forward in a predictable and timely and stable way so that contracts can result from them and people can get on with building those new projects.

Turning to the issue of capacity markets. I think we have a bit of a different point of view from those you've heard from other panelists.

As Yakout mentioned earlier, you can think of this as two bookends. On the one bookend, you have an energy-only market and at the other bookend you've got a capacity market where essentially a hundred percent of your fixed costs are recovered through these capacity contracts.

Our sense is that there are significant benefits to the energy-only market that indicate that the option shouldn't be dismissed out of hand.

For example, we talk a lot about creating demand response and the reason Jim Detmers indicated we've got to get this market started, the reason that we don't have

demand response, of course, is because we don't have price signals to elicit demand response.

And so the first step that I think we need to take is consider moving to an environment in which we raise the offer caps to a level that would allow the realtime markets to clear freely based on supply and demand. And if we do that we will get forward contracting in the energy markets.

And those forward contracts over time will provide incentives for people to invest in new generation. So that's an important factor about the energy-only market.

The capacity market, as we heard from Mr. Stoft, is it's got a lot of interest in the East. That's the standard model used there. The complexity associated with those types of markets, though, can't be underestimated.

Anybody that's been involved in the California process and the whole short-run avoided cost debate involving payments to qualifying facilities, if you thought that was controversial, wait until we bring in cost-recovery curves from the different economists and we talk about penalties and all the other structures and administrative mechanism that go into creating that kind of a capacity market. It's a very considerable undertaking and puts the regulators right square in the middle of the market.

And our view is, is there is a way to create a structure where you can incentivize longterm contracts that

don't necessarily involve creation, creation of a capacity market.

Mr. Chin was referring to the views of Wall Street and the investment entities there. I think that certainly there is a desire to have the security that comes with those types of longterm contracts with a utility. It's also the case, however, that the financial institutions and other entities that have been involved in risk management are now entering the market and can perform the intermediary role that the utilities have done in the past.

So we've got the sort of commodity-risk-management side of Wall Street willing to step in and play an intermediary role and help finance some of these new projects.

Finally, just in terms of the climate going forward and what is needed to continue investment into new generation. Clearly the stable, predictable market structure is absolutely critical.

So we would just urge that the whole MRTU process continue to go forward; that we continue to go forward with resource adequacy; not take anything off the table at this point, but continue to work on that issue; put MRTU into place as soon as possible; and then create a longterm, durable resource-adequacy framework that meets the needs that we all recognize, but doesn't foreclose the things like

demand response and really allowing the demand side to be an equal player with the supply side as we go forward.

In just one example of this, the ISO's peak load last year was just about 45,600 megawatts. If you look at the last 2,000 megawatts of that and how long that load existed, it was probably on the order of a few dozen hours over the course of the year.

So if you create a structure where the demand side is competing to serve that last 2,000 megawatts of load, we'll bring down the cost of capacity in the long run. And you won't get those kinds of incentives if you create this capacity market. You bifurcate it from the energy market and you create these revenue streams where literally a hundred percent of fixed-cost recovery goes into a capacity market.

So those are my remarks and we look forward to any commentary afterwards. Thank you.

MS. SIMLER: Thanks, Curtis.

And our last panelist is Katie Kaplan with the Independent Energy Producers.

MS. KAPLAN: Thank you. Thank you for the opportunity to be here. My name's Katie Kaplan. I'm with the Independent Energy Producers Association, and we're pleased to present these comments today.

IEP represents about 25,000 megawatts of installed

capacity in California, enough energy to produce over 20 million homes and businesses. And our members stand willing, ready, and able to add more efficient capacity to California when given the right regulatory environments and the right opportunities for longterm contracts, as we've heard today.

Unfortunately, one of the growing concerns that we see is in this transition period, and that is going to be the majority of my focus of my comments today.

As you heard earlier today, there are -- there's a great need for generation in Southern California. And currently IEP is aware of about 6,000 megawatts of installed generation capacity in Southern California that do not have any type of longterm contracts, nor do they have RMR contracts with the ISO, nor do they have any market opportunities to recover fixed costs through any type of market, because, as we've heard today, they're under the must-offer obligation.

This should be especially alarming to policymakers because the California ISO continues to report a reliance on these facilities, as we heard today, to meet what will be a peak load condition this summer. This gives a whole new meaning to a faith-based energy policy, since these units have no --

(Laughter.)

MS. KAPLAN: -- obligation to bid into California, nor do they have an obligation specifically to the California ISO. They can serve load in other parts of California.

It is important to point out, however, and I would definitely agree with Mr. Florio that, you know, we are on the right track. And all of you should be very proud of your collective staffs because they have been completely amazing over the last few months and actually over probably the last 18 to 24 months in working collectively with market participants and with each other, which is definitely a breath of fresh air for all of us that have been participating in this process for a long time.

So we definitely, you know, see things coming to fruition. And our -- our members are looking forward to the 2007-2008 time period. Unfortunately, what happens today between now and 2007 or 2008 is what gives us great pause when we're trying to figure out whether we're going to make critical investment decisions.

These decisions that need to be made today will meet that the future demands in 2007 and 2008. We want to make sure there are people able to participate in the market in 2007 and 2008 to meet those obligations.

We -- that's why we need to address the transition issues and that's why we cannot continue to just ignore the

transition issues.

We need to keep our eye on the in-state. And we need to make sure that the transition will clearly facility the in-state. And it -- and we need to make sure that that in-state is clearly communicated to market participants and to the investment community.

California currently defines itself designing both longterm resource-adequacy requirements and spot markets and needing to address these interim issues. The convergence actually provides a unique opportunity to recognize the relationships between these two markets.

The key to designing these markets is to keep the investment risks and rewards properly aligned and the incentives clear to all market participants. The transition must facilitate the end goals.

There's a few keys that we see that will do that. One is action. We need regulatory stability and regulatory action. We need to make sure that this collective group here takes the good work that's already been done, sets a stake in the ground, sets a schedule and sticks to the schedule. And this is probably a date-certain specific schedule that you need to keep to.

We want to make sure that this collective regulatory commitment in implementing a proven market structure will allow for forward procurement standards all

the way to the realtime market decisions. And investors will see that the signs of stability and limitation of the transition.

The second is obviously the transition issues. And you heard a little bit from Steve and from Mr. Florio about it. But if you think RMR is an addiction, then the must-offer obligation is the enabler, and we are in this perpetual state of co-dependency.

And so -- and if we really want to address investment on a longterm basis you have got to address the issues with must-offer today. It is a crutch that must be eliminated. And we would suggest that this -- that the must-offer obligation be replaced with the Commission-imposed resource-adequacy requirement and availability obligation when resource adequacy is implemented June 1st, 2006.

Relying on a set of resources to provide a reliability resource that everyone in this room will recognize is key to keeping the lights on and not compensating them for the service is capacity stealing and not -- should not be permitted to continue any longer.

California must look to new resources to meet its future needs, but those needs will only grow faster if the existing in-state generation is subject to a must-offer obligation and is subject to different types of -- different

types of operational criteria.

The must-offer obligation allows load-serving entities that are not fully resourced to hide behind and escape accountability. For each day the Commission allows the must-offer to continue is a signal sent to investors that California is no place to do business.

In closing, I think that it's important to note that one of the transitional mechanisms that can be approached by next summer, by June of 2006, is addressing some of the key excessive mitigation that the ISO has been allowed to employ through the market -- market power mitigations, including the addressing of the -- of the price cap.

In summary, IEP agree -- urges all parties to work together to capture this unique opportunity to modify both ISO and PUC practices. In the transition period, to facility and complement a swift evolution of the longterm market design, IEP recommends moving quickly to a tradable, flexible capacity market, a centralized capacity market, and to ensure that existing and new resources are valued for the reliability service they're actually providing today, and are dispatched responsibly.

Thank you, and we look forward to your questions.

FERC CHAIRMAN WOOD: So to take up on, I guess, that last challenge, would seem to be in varying levels

repeated everywhere: The June 1, '06 date is pretty much the shortterm key issue here, between now and then, and then from then and beyond; and then the implementation of the MRTU, which of that, I guess, would be folded into -- the resource adequacy would certainly be a precursor to that.

To be specific, and I heard from Katie here at the end, what needs to happen between now and 6-1-06, I just would like to kind of poll the group. We've kind of got a supplier, LSE/utility, consumer, investors, kind of a good panoply here. What do us up here need to do immediately?

And this is a question we -- I'd like to get some ideas now, but it's important enough where after you go back and think, and people in the audience who might have a different perspective, would just like to get that to our Commission and to President Peevey and his Commission, some really suggestions about that. Because I mean we've got a number of dockets that are moving. Quite frankly, we've, you know, let things kind of gel and develop here.

But if we're going to kind of get back at commission-level, driver-seat action again, I think I'd like to make really sure that we get a plan here that has input from everybody. And then y'all and we can figure out how we get all these things done and get it overwith.

But just big picture thoughts about two timeframes, now to 6-1-06, -- and then again task items,

particularly for the two Commissions, if the Energy Commission has some task items that they haven't already handled, you're all free to throw those in here. That's why John's -- John's here as well. And certainly with Yakout here as the operationalizer of all of this. You know, don't be shy about telling him what you need him to do.

But let's just kind of go down and we'll start, Katie, and go here to Mr. Stoft and run down. What are the items in timeframe one, which is now to next summer, and timeframe two, which is next summer onto the implementation of the new market design?

Let's not talk about the long, long frame, which is -- Curtis, I'm on the record as being kind of leaning toward option one as well. Maybe the free energy market -- the problem there, though, is are going to have everybody sign in blood that when, you know, the politician start to how we won't re-intervene. I think that's when all the generators go, 'Yeah, that sounds great. No capacity market. No regulatory overheading, but we've been there before, particularly in ground zero. And we're not going to be fooled again.'

So mindful of that, that we are going to have some sort of transitional device in place that does account for the revenue adequacy and the resource adequacy, that looks a little more regulatory than us on the market side of the

fence would like, let's take that as the two timeframes: Shortterm, subsequent to 6-1-06 into the two years beyond. What do you think are the top action items? Katie.

MS. KAPLAN: The first one would be that there has to be some action to recognize the reliability services that the units that exist in California currently provide; and what that means is two things.

One, I think you need to put a stake in the ground that says must-offer is replaced by the resource-adequacy requirement on June 1st, 2006, period. That there is a huge amount of ambiguity in California right now when the must-offer obligation actually terminates. And so, you know, there are several different FERC Commission orders, there are several different PUC orders. It is completely ambiguous to many market participants.

And so as you are looking at that what you see is that everyone just says, oh, well, we can always rely on this. Or the ISO may say, oh, we may need it for another few summers. Or -- so why on Earth would any LSE sign any kind of contract if, as Steve said, you can get the milk for free? I mean it just doesn't make any sense. So --

FERC CHAIRMAN WOOD: So -- so the issues that were addressed by the MOO, which are: We want to have capacity available so there's not a temptation to do physical withholding, that's handled by the fact you've got a

resource-adequacy contract supplier on the hook?

MS. KAPLAN: Not -- not only that. I mean it's handled by that. It's handled by the rules that you guys have in place with regard to the market-based rates and tariffs. It's handled by the enforcement protocols that the ISO has in place.

We don't exist in the same market that we did, you know, when --

FERC CHAIRMAN WOOD: As more --

MS. KAPLAN: -- MOO was implemented. And so it's really critical that that statement is made on the record, an affirmative statement is made on the record that that will terminate that it must be replaced.

I don't think anyone on this panel, both Mr. Florio and Mr. Pizarro, would agree that the must-offer is in anyone's best interest. It's not transparent. There's a huge amount of procurement that's done in a black box methodology, thousands of megawatts. It's equivalent to how much money we spend on RMR. I mean it's close to a billion dollars if you add RMR and what we spend on must-offer.

So it's really critical that those procurement and the definition of what needs to be done and what needs to be procured is also very critical. So I would say, you know, that would be our -- our probably -- one of our top concerns. But, again, it's very important to recognize the

reliability service that units are providing today.

FERC CHAIRMAN WOOD: Okay, got it.

MR. KEBLER: I would say that the first thing is sort of in the now timeframe would be for the CPUC to, in its resource-adequacy decision, to adopt some type of -- not some type of -- adopt a specific capacity-only product that could be used as a substitute for the must-offer obligation. And the industry has been working, sellers and buyers have been working to craft language that defines what this capacity-only product looks like.

If the industry could get together, finalize what the terms and conditions of that product are, provide that to the PUC, the PUC could say: Yes, this is a product that satisfies resource adequacy. And that would count for transactions beginning in the '06 timeframe forward.

When you get to June of '06, the FERC could say at that time, if there is in fact a viable capacity product that can substitute for the must-offer obligation, the FERC at that time can replace the existing regulatory must-offer with a market-based must-offer.

And this capacity product that I'm talking about is one that's traded bilaterally. It's just defined by the parties and it's traded bilaterally. And then that continues through basically the MRTU timeframe and then we're on into the longer term.

And just a short reply, Chairman Wood, to the issue about price spikes and how you mitigate price volatility and protect consumers and so forth, it's called forward-hedging contracts. And at the time we had the energy crisis, the utilities were precluded from entering into those contracts.

We've got a completely different paradigm in place now, where they're not only encouraged to, they're mandated to enter into forward-hedging contracts. So this concern about price volatility in the spot market can be entirely mitigated through forward-hedging contracts.

FERC CHAIRMAN WOOD: Does the -- does the resource-adequacy program -- when you say replace this regulatory must-offer with a market must-offer, does the resource-adequacy program that is being discussed here in this state actually do that as part of the program or are you talking about an extra thing?

MR. KEBLER: No. We're -- that's -- this would be exactly as -- and this -- you know, there are many advocates of this very approach in the current resource-adequacy process. I think what we --

FERC CHAIRMAN WOOD: But it's still an open question?

MR. KEBLER: It -- well, it -- yeah, it's an open question in terms of what -- what satisfies an LSE's

resource-adequacy obligation, what product satisfies it. And we heard from Calpine saying we don't like the idea that LD contracts can be used to satisfy it.

At some point if it's decided that LD contracts should now count toward a resource-adequacy requirement, then you've got to have a replacement product in place that a load-serving entity can procure. And defining that product now and allowing parties to bilaterally transact that, -- and we've been in the market talking to sellers about this, so I think that there's an ability for that market to begin to take off.

The concern that we have about the longterm vision of capacity markets is this idea of a centralized market with all this administrative stuff, with these demand curves and cost-recovery curves and penalties, and all of that. We view that the capacity mechanism is really a transitional mechanism until we can get to a stale, longterm end state, which we would believe is an energy-only design.

FERC CHAIRMAN WOOD: Great. Pedro.

MR. PIZARRO: I'll actually start with the longterm, then go to the shortterm. I think, Chairman Wood, you made a very important comment, especially as you're thinking about energy markets, which is there is a political reality here of what will the public tolerate at the end of the day.

And if you go towards a longterm vision with energy markets requires, you know, even in spite of efforts to hedge volatility, you will have the potential for volatility and you also have the potential for reliability spikes. And one would need the political will to pass both of those through directly to end-users in order for the market to truly be workable. I'm not sure that that can work in the end, and that's one of the concerns I have.

Frankly, we're looking for reliability at a level that seems to demand some sort of more administratively set solution, because there are general benchmarks in reliability that a system seems to be demanding that may not work in a volatile environment. So that's the ten seconds on that.

I think in terms of the longterm vision, though, the comments that I heard President Peevey say and the ACR that he issued a few months ago on getting the Commission working on evaluating capacity market structures, as well as the idea that Yakout Mansour introduced today of a blue ribbon panel, it seems like that's efforts are converging to make sure that we take a detailed look not just at the 30,000-foot level but at all of the devils and the details that must be gotten right in order to make sure that we have a market in the longterm that can allocate costs fairly, keep existing generation when needed, and develop new

generation when needed as well. And we cannot afford for California to be once again on the bleeding edge of experiments. We need to get this right.

Talking about the shortterm, a couple of transitional elements that I point to. First of all, we do need to address transition issues with existing resources. This way the must-offer obligation debates can end.

I think what I'd say is what we recognize today is that there is probably a lot that leaves something to be desired with the current must-offer.

I'd point to -- well, we heard from the ISO through Yakout. We can't do away with the must-offer framework without a replacement in place. And so I get really concerned when I hear comments about just lifting that off and doing away with it without having a ready replacement to step in its place and put --

FERC CHAIRMAN WOOD: What I heard Katie say was that the MOO would be replaced by the Commission-approved RAR on 6-1-06.

MR. PIZARRO: Well, again, we're still working through the details of what exactly the RAR is doing and its final decision, and to what extent the RAR really down in the devil in the details creates a structure that provides the resources that the ISO needs at its disposal.

I think there's still a lot of work that needs to

be done. I think to Gary Ackerman's point earlier, this may not be the final decision in RAR. There may be more work that needs to be done to get the operators comfortable, that the RAR framework actually gives them what they need to maintain the system.

The second, final transition element is what I mentioned earlier. Beyond looking at how we deal with existing resources, we need new capacity. And we're hearing from the ISO and the CEC we need it now, so we need some sort of Band-Aid solution and, hence, the proposal we're filing at the PUC today.

FERC CHAIRMAN WOOD: Now if we have time I'll ask you some questions about it.

Mr. Schleimer.

MR. SCHLEIMER: Thanks. I'll start -- I'll start with the interim. I think that if the resource-adequacy program is up and running in June 1st of '06, I still think that we're going to have a year or two or three of transitional issues beyond that, issues that start now and go years out. And that's because even if you put something in place by June 1st of '06, you're still going to have a lot of Firm LD contracts that have been signed that will carry over and be here till '07, '08, or '09, so you have to deal with the problem of how you deal with the Firm LD contracts.

I think what is needed between now and next summer, and it's actually needed this summer, is, as I mentioned earlier, you know, the ISO in their analysis of the summer peak has certainly our megawatts and, it sounds from what Ms. Kaplan said, thousands of other megawatts counted as meeting California's, Southern California's needs that has no capacity contract, no commitment to beyond and selling in the state or selling an MP -- SP15.

And I think what is needed is -- you know, that generation will be made to be there because of the must-offer, and we need a compensation mechanism for the capacity service that those generators are providing. That's this summer. And I think that that will continue for many years.

Because even in '06, if there's a resource-adequacy mechanism in place, if you have loads exactly equal -- exactly equaling resource in Southern California, for every Firm LD contract that doesn't have a generator backing it, it means there's a generator that doesn't have a contract. And so you're going to need to deal with this -- this issue even then of generators that don't have contracts, capacity contracts that are needed for the reliability service. So I -- you know, I think that that's the transitional issue.

I think the longer-term issues, and others have

somewhat touched on this, is I think one of the key questions we need to answer longterm is the retail access issue and what the rules are for that.

As far as I can tell, there's a big hole in California's Resource Plan going out over the next three to five years. I don't have the information because I'm a market participant, so I don't know what it is. But my sense is that there are thousands of megawatts missing from the California Resource Plan because of the assumption that there is a certain amount of customers that are going to retail access. And at this point I don't think anyone's building for those customers.

I think it sounds like Edison is making a proposal that they will acquire for those customers as long as they can pass the costs along to everyone. But I think that's a real problem over the longer term. We need to figure out what, you know, what is the rules of the retail market. And that will, I think, help -- help solve this problem.

FERC CHAIRMAN WOOD: Mr. Chin.

MR. CHIN: Very quick. I'm not sure if this is a shortterm or a longterm, to be honest with you, but I think the immediate action that needs to be taken is you need to let the IOUs have an agnostic decisionmaking process with regards to either ratebasing generation build or contracting with the merchants.

Right now the perception at least with the folks that I talk to is that there -- there is an inherent dichotomy. If you are -- if you are an IOU, you may want to hold of contracting with a merchant as long as possible because you know that those -- that capacity will always be there and you can contract with them at a later date. But if you can ratebase it, well, hey, that's even better for you. You want to make that decision agnostic, so that way transactions are consummated and we can move forward in terms of getting contracts settled.

And then the longer-term issue, I'm just going to go ahead and echo Mr. Schleimer's comments. I think the stranded-cost allocation, which is a flipside of the same coin, I think that that very much needs to be addressed. It isn't very clear, I think, to the IOUs or the merchants just who is going to be paying for that and how, how do you allocate that. I'm not sure what the right answer is, but whatever decision you pick, stick with it.

FERC CHAIRMAN WOOD: Gary.

MR. ACKERMAN: I'm thinking about that last one. I think we've just now gone from faith-based contracting to agnostic contracting, so I'm trying to find out where in the --

(Laughter.)

MR. ACKERMAN: -- bookends I belong. And I'm --

FERC CHAIRMAN WOOD: Write on it tonight.

MR. ACKERMAN: I will. Maybe I should just get on my knees here and give the rest of my speech, but here --

(Laughter.)

MR. ACKERMAN: It does have an oops kind of feeling.

Let me give you my laundry list then of check items for now till June 1 of '06, and they were alluded to in my other, earlier comments and also mentioned by other panelists: Relaxing system-wide mitigation measures. That is something that can be done between now and next June. We don't see any relaxation going on in terms of the soft cap or the hard cap.

Removal of the must-offer obligation or at least a target date for removal of the obligation.

Curtis mentioned the capacity product. I mean isn't it amazing? We don't have one here in California. Now we started that conversation on a stakeholder basis. And the Silicon Valley Manufacturing Group spearheaded all that, but it's languishing now and it has to be rekindled. And we have to pick it up again and complete it. And it has to be a product that's acceptable to the PUC for its resource-adequacy demonstration by the load-serving entities and it has to be acceptable to the ISO. We're nowhere near that, we're not even talking about that.

And, finally, on the shortterm horizon, as I mentioned in my comments, define trading hubs, either for an interim period that could take place now. And what I mean by defined is not only geographically defined, but also how the prices would be calculated. Otherwise we're, again, watching liquidity dry up and interest in our market languish.

Longterm. We have to move to a $1,000-per-megawatt hour price cap when MRTU becomes effective. We have -- I mean there's no reason in the world why this grid in this part of the country should be any different than any of the other organized markets. That's one.

Two, we need a platform to trade that capacity product that we'll attempt to develop now and before June 1 of next year.

And, as I mentioned in my comments, longterm multi-year CRRs, if you want to use the language of MRTU. I know that's going to be a tough challenge to take on now. We have so many other things going on now, but the marketplace is saying why should I be entering into longterm contracts if I can't hedge the cost of deliverability.

Let me conclude by saying transition periods. In seven years of doing this executive director shtick, I've never seen a problem like I've just gone through with my members on transition. It's the thing which we could never

come to an agreement on, and it's because loads predominantly saw it one way and generators saw it another way.

And, you know, there's this implication that if we just knew what the stakeholders want we could then provide you with the -- you know, the rules of the road and everybody would be fine but, you know, here's the problem. We have a 50-50 split on the contentious issues.

So how do you get through that one if you folks don't just take up the leadership and say, well, look, every -- every answer is going to have to either be a good answer or bad answer, but we have to get on with this thing. And we get stuck in the transition period.

It would not be fair to suggest that regulation is a series of transition periods, even though a sage once said all transition periods is that period of time between two other transition periods.

(Laughter.)

MR. FLORIO: I was that sage.

MR. ACKERMAN: You were?

(Laughter.)

MR. ACKERMAN: The day you become a sage is the day -- I don't know.

(Laughter.)

FERC CHAIRMAN WOOD: Thought we'd put y'all next

to each other.

MR. ACKERMAN: Yeah, you did and you wore a nice suit for the occasion.

So I don't want -- resource adequacy more than anything else I find that our regulatory model is becoming just a series of transition periods: Wrong thing.

We should have a very clear message of what the in-state is, much like was done in the longterm procurement order and other orders at FERC. We need that guidance. We need that -- we need the North Star so we know where we're directed. And I'm -- it's just my caution and my fear that we get bogged down in regulating transition periods instead of the in-state.

FERC CHAIRMAN WOOD: Mr. Florio.

MR. FLORIO: Yes. I was getting worried because Gary and I were agreeing too much. I mean I have been working on electricity issues for --

MR. ACKERMAN: A hundred years.

MR. FLORIO: -- 20- -- yeah, almost -- 27 years now, and we've always been in some kind of transition. And I'm confident we still will be if I ever lay down my sword, but for the immediate, I think we've got to get this last resource-adequacy decision out of the CPUC in good shape.

And once you have those requirements on load-serving entities to sign contracts, I think a lot of

these other issues go away. The argument that, well, LSEs won't sign contracts because there's a price cap, they're mandated to sign contracts. So I think that issue goes away.

And, you know, I'd like to see it further in advance than one year. But, you know, the first bite will at least get us through 2006.

I think that the Edison proposal, which I guess I could talk about because it hasn't been filed yet, is a very positive step that both Commissions really need to grapple with. I don't think we're going to get through this without something like that. In fact, it sounds vaguely like a proposal we made in last year's procurement proceedings.

So I think we've got to survive the transition and that means getting something built before the transition over. So I do think the Edison proposal is very important in that regard. And it's scary how much I've been agreeing with Edison lately also, but I think they're taking a very practical approach to this.

I also agree with what's been said, that the resource-adequacy decision has to be very clear about what qualifies and counts for purposes of resource adequacy going forward. And whether you call that defining the attributes of a capacity product or you just say, you know, you have to have a contract that meets these attributes, it could be

bundled, it can be unbundled, it can be whatever, but, you know, we need to know with great specificity what LSEs need to sign in order to meet their obligations.

The one place where I have to disagree a little bit with Ms. Kaplan is I think if resource adequacy works the way it should, I think we'll see both must-offer and RMR almost fading away. I'm a little uncomfortable with saying do away with them on 1-1-06, because it's -- you know, this is the first day of the rest of your life, but, you know, it might be a miserable life.

(Laughter.)

MR. FLORIO: I think that prudence dictates keeping those as little-used backstop mechanism until we get MRTU in place. We don't have the day-ahead market in the unit-commitment process of MRTU until February '07.

I know Katie's impatient, but I really don't see much need for RMR or must-offer if resource adequacy works correctly. The concern is we don't always get it right the first time. And I think that additional nine months of cushion could -- could come in very -- very handy. Although I'm not advocating that we rely on those things in the first instance, but only as a fallback backstop if they turn out to be needed.

Beyond that is beyond what I can think at this point, so I'll stop there.

FERC CHAIRMAN WOOD: Thanks, Mike.

Steve.

MR. STOFT: I don't know California details so I'm not going to talk about details of transition. But what is needed is not so much the elimination of patches like the must-offer. What is needed to being sending real investment signals as soon as possible.

One way to do that is to allow market power by taking away must-offer. That's probably not the best way to send the signals we need.

Another way is to send shortage energy pricing. And you could do that by having shortage pricing for more hours or to a higher cap. That's useful.

The other way to send investment signals is through your standard revenue -- I mean resource-adequacy requirements which require either longterm contracts or capacity contracts.

If you're going to send signals with those, my guess is -- missed a step. Just because you get people to sign contracts doesn't mean you're sending signals. You've got to get them to sign contracts that they don't want to sign, then they're going to be paying more than they want to pay, then they're sending to signals.

This is the deal: If you put a requirement that you send -- signed 30 gigawatts of contracts in a market

that has 34 gigawatts, nobody has to pay extra for those contracts because you've been too soft on them. Or if they have to sign contracts that provide that only for three hours, they only have to pay extra for three hours.

You have to figure out how many -- how much of a contract has to be signed, how many megawatts have to be signed so that if you're short on capacity you're pushing those people to sign contracts they can't get their hands on very easily. Then they have out pay extra, then the investors get extra.

There's got to be some pain there to get that money out to investors. And if you don't work that problem of what's the penalty if you don't do it, how much are we requiring and get the pain calibrated correctly, you will not be sending any reasonable signals.

So the first thing to do is start thinking about exactly what you want to require as soon as possible for people to buy, what's the penalty for not doing it so that if the market is short, you cause them pain, and they sign expensive contracts, and if it's long, they don't. And they don't send any extra money out there. Then you'll get the signals right.

If you just go blindly in and say, 'We're going to require some longterm contracts,' and if they sign longterm contracts, fine, you'll never get the right signal. Start

sending those investment signals as soon as possible. The sooner market sees you are serious about sending the right signals, the sooner they're going to start building plants. But don't take away the Band-Aids until you start getting some real investment signals in there.

FERC CHAIRMAN WOOD: All right, Steve.

For anyone else that would like to answer that question but didn't get asked to answer the question, we'll announce the docket or some filing later that we'll get, and perhaps the CPUC would do that, or we'll just collect it and copy it for everybody, but we'll find an expeditious way to handle that.

Other Commissioners and Yakout. President Peevey.

CPUC PRESIDENT PEEVEY: I just wanted to ask Pedro Pizarro a question.

In the case of your Tehachapi Transmission Line filing, as I understand it, Edison wanted to socialize the cost right beyond its own bundled ratepayors directly into a broader group, correct?

MR. PIZARRO: Yes.

CPUC PRESIDENT PEEVEY: And that's what you're going to now propose, to -- in a filing you're about ready to make here also?

MR. PIZARRO: But in this case it would be socializing the cost of trans- -- of generation resources --

CPUC PRESIDENT PEEVEY: I -- I --

MR. PIZARRO: -- as opposed to the trunkline --

CPUC PRESIDENT PEEVEY: I understand. That's what I thought you had said. I just wanted to be sure.

I wanted to ask you this question, and this is an equity question, and I -- and Mr. Florio could comment on it too, perhaps.

This Commission and FERC did something that was unusual: We approved a Mountain View project for you 30 years, in effect, guaranteed recovery. Very attractive. We did it -- I can't speak for FERC. We did it because we thought the savings that was AES' loss should be the ratepayors' gain.

Pastoria, the one -- this beautiful plant we saw the pictures of, was -- construction began before Mountain View. It's a little different status.

My question is: Is Edison -- and I'd like to see TURN, too -- would you be willing to socialize the benefits of Mountain View all that you want to socialize the cost to?

CPUC PRESIDENT PEEVEY: You know, actually, why, I expected the opposite question from players and from -- in the market who might be asking is Edison looking to socialize the cost of Mountain View or, for that matter, should San Diego be looking to socialize the cost of Otay or Palomar or, you know, any other plants that are already in

-- in the -- on track.

Let me start by saying we -- we would rather not put out this kind of proposal. We would rather not be looking for the socializing of costs. But faced with the continued instability in terms of the retail markets, and other folks have pointed to that question, and faced with the fact that the CEC and the ISO have taken -- I think of their assessment as a census.

They've gone out, they've counted all the load and they've counted all the physical resources. And even with Mountain View on that assessment and with Otay and Palomar and Pastoria, they're still coming up short across the system.

So we're not trying to engineer something here that's an all-encompassing framework. All we're saying is even with the efforts of the Commission in approving the various utility projects, even with the efforts of not only Calpine but other generators who had merchant plant built, probably financed before the full impact of the energy crisis hit, even with all of these efforts across the market, we're still coming up short.

What we're trying to do is propose some option for the Commission to consider and approve or reject that allows us to take the next necessary step. And we think that it is probably prudent to limit this sort of unique approach to

small -- the smallest crunch necessary.

CPUC PRESIDENT PEEVEY: So you wouldn't want to see this extended, the --

MR. PIZARRO: No, but what --

CPUC PRESIDENT PEEVEY: -- flipside to Mountain View?

MR. PIZARRO: No, but -- no, but --

CPUC PRESIDENT PEEVEY: I assume that's what you're saying.

MR. PIZARRO: That's right. But the --

CPUC PRESIDENT PEEVEY: That's what I figured. Mr. Pizarro, your equity --

MR. PIZARRO: That's right. Of course the other --

CPUC PRESIDENT PEEVEY: -- concern in this regard --

MR. PIZARRO: -- is that -- if San Diego or another load-serving entity, the Commission decided that another load-serving entity should be stepping into those same shoes, we would also support that.

This is not -- Edison is not the only entity out there that can do this. We'd rather not have it on our balance sheet.

CPUC PRESIDENT PEEVEY: Okay.

MR. PIZARRO: We would equally somebody else doing

it.

CPUC PRESIDENT PEEVEY: You know the term "DOA"?

(Laughter.)

MR. PIZARRO: I do. Let us know now and we'll stop.

MR. FLORIO: Well, I hope "DOA" doesn't mean what I think it does, because it means we won't get the generation we need. But I think one thing that we -- hasn't been mentioned yet in this proposal is that there is a socializing of the benefits in the sense that resource-adequacy credit goes to everybody who pays.

So it's not, you know, Edison gets the benefits and everybody else pays. The benefits in terms of meeting the obligation would be socialized as well.

But now I think in the current environment, I don't know what else gets -- gets the generation we need in the shortterm. This isn't anybody's first choice, but it's -- it's something to get us through.

And, you know, to the extent that, you know, the problem is uncertainty about the future of the retail market, I have a solution to that problem, but I promise not to talk about it.

CPUC COMMISSIONER GRUENEICH: November.

CPUC PRESIDENT PEEVEY: What number is that on the initiative ballot?

MR. FLORIO: I don't think we've gotten a number yet.

CPUC COMMISSIONER GRUENEICH: Do we have time?

FERC CHAIRMAN WOOD: Yes.

CPUC COMMISSIONER GRUENEICH: I continue to remain intrigued about throughout all the discussion is still many people made the statement of demand response is a key element, because we're sitting here talking about sort of carrying on -- this is my worry -- what has been a problem throughout the country, a problem in California of how do you bring the demand side into full competition with the supply side because we all know unless and until we do that we overpay on the supply side. And especially when we're talking about, you know, what -- some people said 15 hours a year.

And so I'd like to echo Chairman Wood's question, and not everybody needs to respond given the timeframe, but if we're trying to get together a more integrated approach on this, in addition to your recommendations of what we would do by June of 2006 on the resource-adequacy side, can I hear, you know, two or three ideas of what we need to do on the demand-response side?

MR. PIZARRO: Well, I'll jump in here real quickly. I think Edison has proposed a number of the demand-response programs, as you know, including our AC

Cycling Program. So we do think that those are an important part, an important piece of the puzzle.

One of the comments I made to Jim Detmers was that when he showed the numbers charts for the summer, those numbers, I believe, exclude demand response and interruptables from them. And that's something that we need to always remember that we're paying for these programs and they are the top of the energy-loading order. So we really do need to count on them and view them as a resource to be turned to.

So, you know, we continue to pursuant demand response as aggressively as we can. And, you know, I believe that our programs that we've proposed address what we view as the maximum, you know, capturable potential that's out there. We'll keep on working on those.

CPUC COMMISSIONER GRUENEICH: Not to prolong this but to hone in a little bit more, I mean is there something more specific that we collectively -- everybody involved in this, we, the CPUC, need to do to make reliance on the demand-response programs more of a reality in terms of what we're planning on or in terms of our whole system?

MR. PIZARRO: I guess I would focus on the reality part. I do think it is important that as we set targets for demand response we are really taking a hard look at how much do we really think is capturable realistic and build that

into the planning, because while we don't want to undercut the demand-response programs, we also don't want to set expectations that are out of line with what we can really get at.

And so I guess to answer your question, just continuing the sort of hard looks that the Commission has been taking at the programs and doing due diligence on them and really, you know, kicking the tires as you approve or reject programs is what needs to continue.

MR. FLORIO: Yes. I think the first thing, and Pedro already mentioned it, but I think it bears repeating, if we're going to rely on demand response we have to acknowledge it in presentations like we had today. And consistently it's ignored. And the signal that sends to me is nobody really believes this.

You know we talk about it, we say it's important, but when we do an analysis we ignore it. And what that says to me is I'm paying, you know, hundreds of millions of dollars for interruptible discounts, but we're never going to see the benefit of that because we're planning as if load wasn't interruptible, and that's a problem. That's a big problem.

I think we have things like AC cycling that are proven effective programs that are not being exploited to the -- to the full degree they could be. Edison is the best

in that regard, but PG&E doesn't even have such a program. And I'm -- I'm much more comfortable, and maybe it's my ISO background showing through with dispatchable type programs than I am, you know, guessing at what somebody's price response is going to be.

I'm just not that confident that the price elasticity is really going to be there in a way that does anything more than charge customers a lot of money. And I would rather see the types of things like interruptible and AC cycling that we know work.

CPUC PRESIDENT PEEVEY: Well, on that point, though, I mean just to be very clear here. We've approved for Edison and PG&E a 20-20 program again this year. There was a gap of a couple of years. It's back again. We know what we achieved in 2001 and 2002 with that 20-20 program. One-third of residential customers in the Edison service territory met that test. Another third didn't get to the 20, but they got above zero and all that.

So that's a measurable -- you know, we know within a very narrow band, I think, what that will do this year. And yet it's not in the ISO number, the interruptible is not in the ISO number. And there are other demand-response programs that's not in the ISO number, I agree with him entirely.

On top of that also not in the ISO number is

there's a significant megawatt sitting in DWP. That's Los Angeles DWP. They don't want to have anything to do with the ISO for reasons that are, you know, regrettable and we can't deal with here, but it's sitting there.

So I always have this problem with the portrayal of Southern California in the manner that it's done, because I do think that it overstates the acuity of the problem and understates the potential to deal with it that we know how to -- that we know how to do here in California.

FERC CHAIRMAN WOOD: Yakout.

CAISO PRESIDENT MANSOUR: I want to make two points. One of them is a clarification and the other one is caution.

The clarification is for the purpose of the simulation that the ISO is conducting and we should have the report out very soon. This is on the hot summer day simulation. We will not be counting on anything as a matter of course if it is not scheduled in the simulation. So we're only going to count the ones that are scheduled -- those also that are scheduled by the scheduling coordinator.

So this is just to expose the issue and keep us as much as possible away from having to use must-offers and so on. So that's just for clarification.

The second point is load displacement. And, again, it can come in different ways. Interruptible load is

a good thing in theory. And, you know, in theory, theory and practice are similar. In practice they are not.

The interruptible load is something you can rely on to some extent. It has operational difficulties. It is not that convenient for the large amount. And usually when you put an offer for interruptible load you get offers from those that are easiest to interrupt. Those also happen to be exactly the ones that we rely on in emergencies.

Now if we're going to count on load interruption of that type as a matter of course for normal planning, our cushion for emergencies is less and less and less. So as much as I expect as much as we can use it, but you don't want to get to the point where every time you have a problem you could just kind of cut half of the load. You're almost like, I don't want to say, like almost a Third World performance. It's just -- that's not what it is.

So if we have to, we have to. But there's no substitute for additional resource, and this is why we kind of say, yes, we respect the load interruption, but don't just push it beyond the envelope where the operators will have a very difficult times with it, especially where it comes in an excessive amount.

FERC CHAIRMAN WOOD: We are over time. Let me tell you what's driving -- a former CPUC President, Don Vile, recently passed away and his memorial service is this

afternoon, I believe, at 4:00 across the Bay.

CPUC PRESIDENT PEEVEY: 5:00.

FERC CHAIRMAN WOOD: At 5:00 across the Bay, so that's what's driving our time line.

So if you all could kindly please get a little bit of nourishment if you so choose, and why don't we reconvene here at 45 past the hour to do our afternoon panel. Thank you.

(Luncheon recess taken from 1:05 p.m. to 1:58 p.m.)

FERC CHAIRMAN WOOD: I'd like to welcome everybody back. And if you will go ahead and grab a seat and pipe on down, we'll get started with the afternoon panel.

So, Jamie.

TRANSMISSION

MS. SIMLER: Okay. Our afternoon panel is on transmission. Kind of the general theme is who's building and why, what are the obstacles, who's putting up the money.

We're going to start this panel with three approximately five-minute presentations or so by the staff of -- staffs of the Cal ISO, the CEC, and the CPUC to kind of put the framework for their roles in getting transmission investment. And then we'll proceed with our panelists, who have been asked to give three-minute comments, and then we'll have Q&A. Thank you.

And with that I guess we're going to start with Armie Perez from the Cal ISO.

MR. PEREZ: Good afternoon, Chairman Wood, President Peevey, Commissioners, Mr. Mansour, sir.

(Laughter.)

MR. PEREZ: I've been asked to tell you the role of the ISO in transmission planning. I will try to do that in the five or six minutes given to me.

Basically the PTOs at the present time submit bulk power plans on a yearly basis to us. The plans are created through an open stakeholder process, which is administered by the ISO.

The ISO reviews the projects that are being submitted on four bases: Determination of whether the project is really needed, what alternatives were considered to the project, the cost of the alternatives, and whether the solution is effective in trying to solve the problem that has been created. And then projects are either approved or denied.

After all of the bulk power programs are put to bed, then we do a separate control area to make sure that everything seems -- fits seamlessly together between the three PTOs.

Projects are approved by the California ISO, must go then into the CPUC and for a Certificate of Public

Convenience and Necessity. And we will support the project through the CPUC process.

Some of the other little items that we do is something called RMR, which I think you heard a lot of it today. We review generator intake connection studies that are done by the PTOs. And we're very active in transmission, regional transmission studies.

Regarding regional transmission studies, we have basically four different subgroups: NTAC which deals mostly between California and the Northwest entities and within the Northwest itself. RMATs which deals mostly with Wyoming, the Montana-Utah area. STB which is extremely active. One deals between California, Arizona, and Nevada. I keep looking back. And SWD which deals between Arizona and parts of Colorado.

We have been in a need for quite a while to develop a methodology for new transmission analysis, and we have done that. It's called TEAM for -- TEAM, Transmission Expansion Aisles Methodology. It is based on a production cost simulation and it takes into account stuff like market power issues. We do analysis studies for different scenarios and it's based on a complete and full detail work about the CCC network.

This methodology has been submitted to the CPUC for consideration and it's expected that all the projects of

the ISO will do -- or studies presented to the ISO for approval will be using this methodology.

This methodology was very actively used in the STB process, which has resulted in the recommendation to improve several 500 kV lines in California and Arizona, and also the recommendation of a brand new 500 kV from the Phoenix area to the Palm Springs area with an operating date of 2009. And this project is now in front of the CPUC.

So you can see the ISO grant planning process is working well in some areas. The reliability of the grid is being maintained and it's improving in some areas where economic -- but -- it's being maintained and improving in some areas where economic analysis is being used to determine economic opportunities to reduce ratepayer costs.

The big question is even though the process is improving, do we need more improvement? And the answer to that is absolutely a yes.

Reliability and economics go hand-in-hand, as Mr. Mansour mentioned to you this morning. And he will shoot me if I try to make that separation from now on, which I will not. But we need to build a grid that is both reliable and efficient. We need to move the power from the generators to the loads.

As we mentioned several times today, we have over close to a billion dollars worth of expenditures this -- in

2004 related to RMR congestion and congestion costs. There are a lot of fixes that can be done that are very inexpensive and have a very fast pay back.

For example, we put a new transformer at Mira Loma Substation. The payback for that was 16 months. We did a reconductor in a Mira Loma transmission line. Payback was five months. There are lots of projects like this that needs to be done but are now being proposed.

So what are we doing for additional work? We are concentrating in the generation side, the locational generation side. We're going to increase our efforts to try to identify longterm locational generation capacity needs and transmission projects to eliminate those needs and to make sure that the proper incentive exists for generators to look at optimal locations within those pockets.

One of the problems we have had is a project I think that needs to be addressed by FERC at some time in time, is if we're going to have generation be truly competitive with transmission it has to be located in the right areas. But right now there's no methodology available to make a locational payment to a generator that can be recovered by the utilities.

The transmission side. The ISO recognizes the PTOs don't have all the information they need to do proper planning, and sometimes we do. We recognize it is a

collaborative process between the PTOs and the ISOs, but we need to build a straight infrastructure and we need to reduce RMR costs and congestion costs, so we plan to do the following things.

First, we will be publishing an annual comprehensive longterm transmission plan. Second, projects proposed by the PTOs will be evaluated rigorously against the published plan. Any projects that appear in the ISO plan but are not included in any of the PTOs plan will be offered back to the PTOs for a right of first refusal. If they do not want to or decide not to build a project, they will be offered to a third party.

And next year's plan will have a target reduction cost on a yearly basis until the overall cost is down to a reasonable level.

That's the end.

MS. SIMLER: Comments, questions. Anybody have questions for Armie or do you want to hold to the end?

Okay, great.

All right. Next up is Sean Gallagher subbing in for Tom Flynn at the CPUC.

MR. GALLAGHER: Good afternoon. I'm Sean Gallagher. I'm the Director of the Commission's Energy Division. I'm pinch-hitting for Tom Flynn of our staff who wasn't able to make it this afternoon.

I want to talk a little bit about the CPUC's role in transmission expansion and permitting. And, as Armie mentioned, much of the responsibility for transmission planning falls on the shoulders of the ISO and the transmission owners, but the PUC is also proactive on transmission.

We don't just wait around here for a utility proposal to fall on our doorstep. In recognition of the need for timely additions to new infrastructure in California, we try to be quite active.

For example, our staff participates in transmission planning forums and working groups, some of which Armie mentioned, STEP, for example. There's also a working group looking at San Francisco transmission issues that are staff participates in. There is a working group down in Imperial Valley looking at transmission issues that are staff participates in. And this gives us sort of a heads-up and a head-start when planning and when projects do come into us. We're aware of the issues that are involved in getting projects built in those areas.

The PUC since 2001 has had an ongoing proceeding into investigating transmission constraints in California and getting projects moving to resolve those constraints. That proceeding has resulted in a number of projects. I believe Jefferson-Martin is one of them.

We have a rulemaking on transmission streamlining which I believe Armie mentioned. The TEAM methodology that the ISO has developed has been submitted in that proceeding. And the point of that proceeding really is to try to enable the PUC to make better and quicker work of the work that the ISO does in determining the need for transmission lines so that we can more expeditiously process transmission siting applications when they arrive here.

We have also been very aggressive on renewables. Many of you are aware of the work the PUC has done in promoting and facilitating renewable transmission in the Tehachapi area. And the PUC is involved of course in longterm procurement. The PUC is responsible for reviewing and approving utilities' longterm procurement plans.

One of the elements of those procurement plans is for the utilities to identify transmission upgrades to us and -- transmission upgrades and additions that are necessary to support the resource plans.

We of course also coordinate with the ISO on their longterm grid planning and with the CEC in their planning efforts. And one of the -- one of the ways that we attempt to do that is through this transmission streamlining rulemaking that we have.

One of the things that we've done on the renewable front is there is a Tehachapi study group which is

aggressively trying to push the process forward to ensure that all the planning gets done in a coordinated fashion so that projects can be brought to the Commission in a timely and coordinated basis, and avoid permitting issues, CEQA issues like piecemealing, and get those projects built in a way that will really bring that generation online out there in a timely way.

There are a number of projects under study that we have here that are projects that have not been proposed to the PUC for approval but, rather, are in the sort of study process. These include three or four Tehachapi projects. There is a Salton Sea geothermal line that we're taking a look at and there is also a substation out in the Delta that we're looking at.

On the permitting front, electrical corporations in California are required to obtain a permit from the PUC in order to build transmission. And of late we have approved a number of important transmission projects. They include the San Diego Mission Miguel Project that will be online in a temporary manager this summer. I believe that's supposed to come on July 4th or July 1st. That'll increase the import capacity in the SP15 area, and that was one of the things that Jim Detmers mentioned earlier.

We've approved the Edison Viejo Project. We've approved the PG&E Jefferson-Martin Project, which will

significantly improve reliability on the San Francisco Peninsula.

There are also a number of very large transmission projects that are in front of us now. We've got the Otay Mesa 230 kV Project that will interconnect the new Otay Mesa Generating Facility with the San Diego load area.

There is the Devers-Palo Verde II line that -- that Armie mentioned a few minutes ago.

There are the first two phases of the Tehachapi. We call them now Antelope-Pardee and Antelope-Tehachapi. The schedule on the -- what used to be called Antelope I are now called Antelope-Pardee is that the draft EIR will be out this fall. And on the second part of that, we now call Antelope Tehachapi Vincent, we're looking for Edison to complete its necessary preliminary filings this summer or this fall.

And then there's a number of smaller projects that are in as well I won't bore you with. And that's the end.

MS. SIMLER: Thanks, Sean.

And now we're going to hear from Don Kondoleon from the Energy Commission.

MR. KONDOLEON: Good afternoon. I'm Don Kondoleon. I'm the Transmission Program Manager with the California Energy Commission. I want to thank you for inviting the Energy Commission to participate in this panel.

I want to speak a little bit about the Commission's Integrated Energy Policy Report.

Legislation was enacted in 2002 that requires the Energy Commission to prepare an Integrated Energy Policy Report, now dubbed the "Energy Report," every two years with annual updates. The initial report was to be completed by November 1 of 2003.

Now with regard to transmission. The Energy Report includes an assessment of California and western regional electricity and transmission capacity and use. In conducting this assessment, staff was to ensure that decisionmakers have the qualitative and quantitative information to make informed decisions that are understandable to the public to ensure that stakeholder involvement is effective, appropriate, and timely; to ensure that the transmission effort integrated with work in other project areas; and to provide a complete report for the IEPR Committee to develop the Energy Report.

Now for the 2005 Energy Report, staff will focus on four areas for its transmission assessment. The first area includes an overview of California's transmission system status that includes an examination of local are able to concerns; an examination of congestion concerns, particularly those in Southern California; and the ability to connect renewable resources.

The second area is an assessment of nearterm and longterm transmission projects and paths that includes intrastate projects, such as the San Diego Gas & Electric 500-kV interconnect and the Transbay Cable; interstate projects, such as the Devers-Palo Verde II Project; and renewable projects, such as the Tehachapi upgrades and the Imperial Irrigation District Green Path Initiative.

Area 3 is an examination of the impact of transmission on renewable development. And that includes identifying renewable operational system integration issues and developing recommendations for the mitigation of those issues. Now this is an important area because of the fact that 4,000 megawatts of wind potential exist in the Tehachapi region, yet interconnection of this large quantity of intermittent resources causes some concerns to the system operators and planners.

The fourth area that will be undertaken is an identification of corridors to meet longterm needs, and that includes examination in the San Diego-Imperial Valley area and the area north of Tehachapi.

Now staff's transmission assessment will be derived from information provided by not only the California Invested-Owned Utilities and the California Independent System Operator but also from the California municipal utilities, federal power marketers, and out-of-state

parties. In addition, supplemental information has been provided through the four transmission workshops that have been held throughout the process. These workshops typically include panel discussions in order to allow for greater participation by all stakeholders.

The results of this year's assessment will be documented in staff's Transmission Report that will be released in mid-July 2005 and be subject of a workshop at the end of July.

Now as a result of legislation enacted in 2004 the Energy Commission is now required to prepare a Strategic Transmission Investment Plan that will be prepared in concert with the Biennial Energy Report. Staff's Transmission Report will provide the foundation for the development of the Strategic Plan.

It's the goal of the plan to ensure that the investment community has the transparency and certainty it needs to stimulate investment in transmission. The 2005 Energy Report and Strategic Transmission Investment Plan are scheduled for completion by November 1 of 2005.

Now all of the notices, reports, presentation, comments from the staff's activities in developing the reports from 2003 to 2005 are available on the Energy Commission website at energy.ca.gov.

And that concludes my presentation.

MS. SIMLER: Great. Thanks, Don.

With that background information of the three entities responsible for transmission, if you will, in California, we'll start with our panelists. And we'll start with Dave Parquet of Babcock and Brown.

MR. PARQUET: Commissioners, thank you. Nice seeing many of you again. I appreciate the opportunity to make some comments.

As Jamie indicated, my name is Dave -- David Parquet. I'm Vice President at Babcock and Brown. And Babcock and Brown is an investment bank financial advisor and infrastructure-development and investment company.

We participated in many billions of dollars of energy projects, including, just by way of example, a very similar project to one I'm going to discuss right now, and that's a project that interconnects the island of New Zealand with -- or Tasmania with the mainland in Australia.

I'm going to talk about -- I'm going to address many of the points in the agenda by providing a specific commentary on an example of a project that we are implementing right now. It's a transmission project that we're developing in the San Francisco Bay Area in concert with the City of Pittsburg. The name of the project is the Transbay Cable Project. It is a 55-mile, underwater, high voltage, direct-current transmission line which will connect

Pittsburg to San Francisco.

Why high voltage direct current? Because HVDC can address issues in ways that AC cannot. And this particular problem that we are attempting to solve is a unique one that HVDC is specifically attuned to.

We feel the project will fill the longterm load-serving needs of San Francisco and while so-called completing the Bay Area transmission loop, it will inherently provide greater security and reliability for the transmission system.

Finally, we feel it has significantly less environmental impacts than other longterm alternatives that are presently being considered. That's very important in a heavily populated area like the Bay Area.

As to the approval status of the project, there are two: The Cal ISO in concert with the San Francisco Stakeholder Study Group, which was a body formed by the ISO in 1999 to address just these types of problems in San Francisco, is reviewing the reliability features and cost-effectiveness features of our project precedent to a need determination.

Our analysis indicates, in deference to Yakout, that it's an economically viable reliability project. And the reason is, is that we feel that the benefits exceed its cost subject to the efforts now underway at the ISO to

confirm them, because it will relieve congestion from the East Bay and also it will reduce losses because the power no longer has to go around the bottom of the Bay and up San Francisco Peninsula. It can shortcut directly to the load.

FERC is also now considering a letter agreement that we had proposed which defines certain rate principles. If these two approvals are obtained in July, as anticipated, the project is expected to be in service in late 2008.

Addressing some of the points in the agenda. This project is made possible by a cooperative effort among Babcock and Brown; the City of Pittsburg -- that's Pittsburg, California for those of you that aren't familiar with the Bay Area; and its municipal utility, Pittsburg Power Company.

Pittsburg is a site of an important East Bay substation which has access to significant transmission. Also located nearby are several large merchant power plants and several small power plants. And Pittsburg has undertaken successful partnerships with private parties in the past. We saw a lot of benefits in creating this public-private partnership with Pittsburg as a vehicle to solve the
San Francisco infrastructure problem.

This partnership has allowed the project to proceed to this point. The structure is very much like the

Path 15 upgrade project, but in our case a city municipal entity as opposed to a federal entity will own and control the assets. And B&B, the private entity, will provide the development funding and the financing and take the cost risk.

But as in Path 15, all transmission rights will alternatively be turned over to the ISO for their control. And this vehicle allows to abridge a critical gap in the present infrastructure in San Francisco.

We need the active assistance of regulators like yourselves who want to help meet electric infrastructure needs in California in the coming decades. Locating any project of this magnitude in a heavily populated area like the San Francisco Bay Area is extremely challenging. Logistical, permitting, technology, environmental justice, political and other issues are very, very demanding.

We at B&B conceived the idea of this project, developed it, implemented it -- are now implementing it with our partners in Pittsburg totally at our risk. It bears indicating that if this project is not energized, regardless of approvals, ratepayers will not see one single dime of cost.

We urge all policymakers from various agencies to encourage vehicles like ours, a public-private partnership, and like the Path 15 project, for transmission development.

Such partnerships can solve difficult transmission problems, as was seen on Path 15 and we hope we will see on ours. Such partnership can get needed facilities constructed. They shift risk away from ratepayors and toward the private party.

Private parties are willing to take those risks provided they are compensated for them. While still preserving, at least in many of the structures that we've noticed, regulatory oversight to assure prudently-incurred costs. That is part of our project as well.

It is paramount that regulatory agencies work together and avoid turf battles that have bedeviled projects in the past, usually over jurisdictional issues.

From a transmission-development business point of view, a few additional comments from this private party. We need a predictable process, where new ideas are respected as just as viable as those of the local utility.

You heard Armie mention a little bit about that in his -- in his talk about the process if the IOU didn't decide to do it, then it would be reverted to private parties, for example. Why not do that first, or allow new ideas to be respected status quo with the utilities' ideas?

We are grateful, grateful that that is occurring right now on the ISOs' evaluation process. We are being evaluated right next to the other proposed alternatives that

are on the table, but we need to understand the risks. Where there is an expectation of a return commensurate with the risk and the process, the result will be we'll all get more critically-needed infrastructure developed in California and the West, because private -- there are private parties out there who are willing to take this risk, invest their funds, totally at risk to their success, provided there is a process that makes sense.

So far we have been treated very, very nicely in the Bay Area with the ISO's process and we look forward to its successful conclusion. Thank you.

MS. SIMLER: Great. Thanks.

Steve Metague with PG&E.

MR. METAGUE: Thank you, Jamie.

I'm Steve Metague with Pacific Gas & Electric and I'm pleased to be here with you this afternoon. PG&E supports and appreciates this open opportunity and exchange of information. And I'm sure it's to the benefit of our customers and all energy consumers in California as we work together to solve some of these tough problems we've been hearing about today.

I'm -- in my brief remarks I'm going to summarize some recent things that PG&E has been doing to expand the electric transmission infrastructure in California. I'll have some remarks about planning and siting, and some

recommendations on some nearterm steps in those areas, as well as ratemaking. And I'll have some recommendations for ratemaking for transmission as well.

First let me summarize with the recent activities of PG&E. In the last five years we have doubled our expenditures in transmission, electric transmission compared to the previous five years. We're currently spending about $400 million a year on transmission improvements.

Some of the recent major upgrades in the Northern California area include the Trivalley Project, the Jefferson-Martin Upgrade, the Northeast San Jose Project. Many of these projects and others were on the map that Jim Wright shared with you this morning.

In addition, in December of last year, the Path 15 Project became operational. And that was a partnership between PG&E, the TransElect Company as well as Western Area Power Administration.

Let me turn now to siting and planning issues. PG&E is pleased that the energy organizations within the state of California seem to be cooperating and working better than ever together. The Energy Action Plan was certainly a good signal of movement in that direction.

More recently, the CPUC in a transmission OIR proceeding recognized the need that -- or the requirement that transmission-need determinations be done only once.

And PG&E absolutely supports that and believes those need determinations should be done at the California ISO.

I'd also like to mention that PG&E is heartened by the recommendation of Armie Perez just moments ago. He alluded to information that the utilities need in order to make good transmission-planning decisions. And I think what he is proposing has some promise in that area. Most specifically, PG&E has been haunted by the concern that upgrades to the transmission systems may not deliver reductions in RMR. We're very, very interested in that occurring. And we have had discussions with the ISO and it seems like they are listening. So we really appreciate that recommendation this morning.

Relative to our ratemaking, I just have a couple of very brief remarks. Despite the fact the investment I alluded to earlier in PG&E's service area has been at unprecedented levels, it's become clear from this morning's discussion and from earlier documents that still more is needed. And PG&E would like to propose that the FERC consider three specific actions in the ratemaking arena.

One of them is that -- it would be helpful to revise the current abandoned-plant treatment, particularly for projects that receive ISO or RTO approval.

I would also suggest that improvements in allowing the utilities to opt for a more rapid depreciation life of

assets rather than the 40 to 50 years that transmission assets current receive in traditional ratemaking. And I believe it's also appropriate to provide enhanced rates of return at least on incremental assets and perhaps only as a transitional make sure, but to do that now, to make sure that the needed infrastructure in California is brought forward.

In summary, I think the State is moving in the right direction. We look forward to the coordination and improvement on need determinations that come to bear in the siting process at the Public Utilities Commission. We're pleased by the ISO's proposal. That may be very helpful, I believe, in the area of RMR reduction. And I'm hoping that the FERC will consider our remarks in the, as I understand it, soon-to-be-released incentives proposal policy statement that may be coming out in June, this month.

So with that I'll thank you and be ready for questions or comments as we proceed.

MS. SIMLER: Thanks, Steve.

Chris.

MR. LESLIE: Thank you. Chairman Wood, President Peevey, Commissioners, Mr. Mansour, good afternoon. My name is Chris Leslie. I'm an Executive Director with Macquarie Securities in New York.

I'd just like to apologize in advance, though I do

have to leave just before three o'clock, so I'll give you that warning.

Just to introduce Macquarie to the broader audience today, we're an Australian-headquartered investment bank. We have about 20 billion U.S. dollars under management in the ownership of infrastructure around the world, including electricity transmission systems: The AltaLink System in Alberta, the Michigan Electric Transco System in Michigan, both which also involve TransElect.

Importantly, in the California context, we were the financial advisor to TransElect on the Path 15 Project. And we were also an early-seed investor in that project. More broadly in California, we're also building the SR125 toll road in San Diego.

So with that backdrop I guess our presentation today is that of an investor in infrastructure. And having the experience from Path 15 and I think one of the messages we'd like to convey is that really at this moment in time there's unprecedented appetite amongst the investment community, and we could call them the independent financial investor community as distinct from the utilities, shall we say, for large, well structured transactions in the transmission sector.

Don't let anybody tell you that there's no money sort of on the independent side because there -- the world

is awash with it, essentially.

Both for system transactions, which we've seen a couple of on a national basis, but I think due to some impediments at a structural level, we don't actually expect to see system transactions in the near future. And certainly in California we wouldn't expect broad-base divestment of utility assets any time soon. But I think there's certainly a role for the independent investors to play both at the project level, such as the Path 15 Project, and the Bay Area Project that Babcock's pursuing.

And I'd also echo David's comments that the private sector is very willing to put a lot of money at risk and to insulate ratepayors from that risk provided there is the corresponding regulatory certainty. And there's nothing worse than uncertainty.

We're a global investor, and there are plenty of projects in the world. This is not any kind of threat to California, but if California doesn't appear to be a suitable place to invest, then -- then the money will go elsewhere. However, I think there are very encouraging signs. And I think the fact that we have the CPUC and the FERC on the same panel is very encouraging for California.

I think the -- the other role that the independent financial players can play together with independent companies is on more of a regional basis.

So whereas the utilities inevitably have a confined geographic footprint within which they work, the independent players may be able to participate to solve some of the more regional issues. And I think historically California has played a leadership role in deregulation of electricity. Obviously the experiment wasn't a particularly happy one, but the world certainly took notice.

And I think if you look at the world's deregulation of electricity, they took the lead from California. So I think it's now time for California to -- to take the lead again. And I think the Commission here in California can certainly take a role in spearheading regional coordination of transmission and take a leadership position in that regard.

I think there are obviously large dollars to be spent. And we heard this morning in the context of obviously the resource -- the resource side of the equation that, as I think Bill Hogan of the Kennedy School said: Market participants cannot solve the problem of market design. And that's something that we would -- we would echo here.

Certainly it's difficult for the individual participants at a local level to solve, for example, the market design in California. I think it's doubly difficult for local market participants to solve regional problems.

And so we'd encourage the Commissions both at the -- the federal and the state levels to cooperate to provide a framework for regional solutions that -- that allow a high degree of certainty for independent investors. And in the event that that transpires, then I would say that there is certainly a considerable amount of financial resources available to implement those projects on a regional basis.

Thank you.

MS. SIMLER: Thanks, Chris.

Picking up on your theme of sort of regional cooperation, we've got Jerry Smith from the Arizona Corporation Commission.

MR. SMITH: Good afternoon, Chairman Woods, President, Commissioners, and Mr. Mansour.

I suppose the question might be why is Arizona sitting here before you today. And I think there are a probably a couple of reason.

One reason I think we have been asked to be a part of this panel is our state does have some resources that could be of shortterm value and importance to California, provided there is transmission in place to deliver it.

Secondly, our state has been very active and effective in getting infrastructure constructed in our state over the last few years. We're one of the states that could be guilty of the paradigm of build it and they will come

regarding generation plants.

We do have some natural gas fired plants sitting ready to deliver and unable to reach market effectively during the most needed period of time for those deliveries.

Secondly, we have been very successful in getting transmission infrastructure constructed to meet the needs of the state of Arizona, but we are recognizing that the wholesale market needs may not being effectively attended to, as we look at how do we deliver from the plants that are being constructed to the larger market.

I suppose much of what I heard today would be quite similar to being on the deck of the Titanic, listen to a debate of who paid what price for what ticket. It's my sense from the comments we've heard today that the source of the demise and the crisis, both from 2000 to 2001 and that pending over the next couple of years, is one of lack of infrastructure, both generation and transmission.

Arizona is not that much different than California in terms of its load growth and the challenges. We also have reliability, must-run regions in our state. And we have been working hard to arrange ways of building ourself out of an excessive dependence on local generation to resolve those transmission-delivery issues.

And I would suggest that any resource-adequacy plan that commits to a resource-procurement process that

does not demonstrate deliverability may also be equally flawed.

I would suggest that the experience we've had in Arizona is one that we realize that the market can be successful, most successful when the reliability and adequacy interests of the system aligns with the commercial interest of the market. And, in fact, one of the fundamental challenges that the industry's been facing during restructuring is that these two components have been in a tug-of-war to establish which of those principles would be overriding and adhered to.

And I would suggest to you that they need to be both be complementary for there to be success. And we have experienced that in large scale at the Palo Verde Hub, which sits on the seam between Arizona and California, with major generation, new generation interconnected via trunklines. And I realize trunklines is a hot topic in California right now, but what we have found is while those trunklines have done an effective job of addressing the commercial interest of the plants and the market, it has left us exposed with some reliability concerns and risk.

And, in fact, we've had outages over the last two summers that have underscored the appropriateness of there being concern about the reliability of a large hub with trunkline connections of power plants.

As a result, the Arizona Commission is looking towards evolving to a different hub configuration by encouraging future transmission line interconnections to be with the power plants rather than with the common bus at the hub. This will reinforce reliable service while still achieving the commercial interest of having a tariff-free transmission zone at the hub.

I would suggest maybe that some of that same concept might be of use and value in California as you're looking at locations where you choose to interconnect large numbers or large quantity of megawatts. Otherwise you may find yourself as Arizona is, the loss of one major switchyard could result in interruption in service of multiple generators in excess of what the reserve requirement is for the West as a whole.

I think I will reserve the rest of the time for questions and allow the other panelists to make their points. Thank you.

MS. SIMLER: Thanks, Jerry.

Brian Silverstein with the Bonneville Power Administration.

MR. SILVERSTEIN: Commissioners, thank you very much for the opportunity to participate on the panel. My name is Brian Silverstein. I'm the Vice President of Operations and Planning at Bonneville in Vancouver,

Washington.

Since we came to the turn in the millennium it had been nearly 15 years since Bonneville built a major transmission line. And we were spurred into action by a combination of the energy crisis in the West and the exposure that we felt we were facing for catastrophic failures on our system without making a transmission investment.

So in 2001 we put together an infrastructure program in cooperation with the various stakeholders in the region. And I'd like to share just three things with you in my comments today: What we accomplished, how we did it, and a suggestion on what we can do to make the process better in the future for building transmission.

So basically the outcome was over the last four years, we invested about $1 billion in transmission. Half of that money is in six major projects. That's six out of the 20 that we identified. We built 160 miles of 500-kV transmission. We modernized a 3100-megawatt DC terminal in Oregon that links up to our counterpart in the City of Los Angeles. And also many local support projects as well.

And the hot issue for us today in the transmission arena is interconnecting various wind projects that are scrambling to come online by the deadline of December 31st to receive their production tax credit. And we expect to

have several hundred megawatts of new wind projects online by the end of the year in the Northwest.

So how did we do this? It was -- basically could not have been done without an open process, a stakeholder process to examine the transmission needs and put the plan together. So everyone was at the table. We reviewed the needs, we looked at the alternatives. We developed the business case.

And this is really important, because now that those projects are completed, we have to pay the piper. And we are just completing our rate case now, which we settled for a 12-and-a-half percent increase in transmission rates. And we have the support of the customers -- and I should probably stop the conversation at that since we'll be filing before FERC shortly.

The investment was done by a combination of borrowing from the United States Treasury, as Bonneville does, as well as third-party financing for a major transmission line which will be completed this fall.

I think another important aspect that allowed us to succeed is we gave full consideration to nonwires alternatives, such as demand response and distributed generation, which is backed up by several pilot programs demonstrating the feasibility of those measures.

So here's my suggestion. And I think this builds

on something that Jerry just mentioned a couple of minutes ago, that a resource-adequacy plan isn't complete unless there's a delivery -- delivery adequacy component.

I think what we need to do is establish a link between resource and transmission adequacy. And I did not say "re-establish," because I don't think it was ever there before. While utilities may have done integrated resource planning with some consideration of transmission, I don't think it was ever institutionalized on a regional basis. And certainly functional separation over the last eight years has made it much more challenging to do integrated planning.

So I think the challenge is it goes more than just planning. I think we have to look at the transmission-request process, particularly as it's carried out under the Open Access Tariff. And those things are done independently, resource planning and -- and transmission planning are really done independently. We need to find a way to synchronize them.

So I'm not saying that we need a single integrated plan where there's one all-knowing entity that makes the decision, but we need to bring those two back together. So if I think of resource planning as a cycle that takes a couple years from the IRP development, the RFOs, and, finally, the selection. That may take a couple years. And

then it's -- after the purchases are made, I think we need to have a transmission request and planning process that moves in parallel with the resource-development process.

And that would then allow us to understand the full costs of developing the transmission to deliver resources that are identified in the resource plan.

So what we need to do is we need to build the institutions to do this not just at a state level but at a regional level and for the western interconnection, WECC-wide.

And why do I think this is really important? This is the only way we can get the information we need to do transmission planning. I think this is the only way we can ensure a least cost plan and ensures that the transmission will be available at the time that the resources are developed, so you don't have new resources that are stranded due to lack of transmission.

And, finally, by doing this integrated plan I think we can allow appropriate and timely consideration of demand response and distributed resources as part of developing the integrated plan.

I think the challenges in putting this together are really twofold. One is getting the institutional structure together on a larger-than-a-statewide basis and a region-wide and West-wide basis.

And the second is how do we integrate this with

the first-come, first-served request process that we worked through today, particularly in a region like the Northwest where those requests might have to go to two or three utilities to move a resource to the purchaser.

So I think there are some challenges, but I think this can be linked into some of the ideas that are being developed in the state of California.

Thank you.

MS. SIMLER: Thank you.

Jim.

MR. AVERY: Good afternoon. My name is Jim Avery. I am the Senior Vice President of Electric Operations for San Diego Gas & Electric. And I'd like to thank you for this opportunity to present some views.

I have to admit I agree with just about everything you've heard here today. And it's very refreshing.

Let me start by saying a couple of key facts. Transmission represents roughly five percent of the rates our customers pay. Yet if we look at the cost of congestion or if we look at the cost of these RMR type contracts that we pay to to support the deficiencies in the transmission infrastructure, that's another ten percent of our retail rates.

So there's a significant opportunity to make transmission investments in San Diego that would mitigate

those costs.

When I look at the FERC and I look at the CPUC and I ask myself, What are the things that we need to be able to make those investments, the list is relatively short and it's relatively easy to go through.

We need clear and concise policy, for any form of ambiguity on transmission policy either at the state level or at the federal level has a very chilling effect on the ability and just the interest in making investments in transmission.

Licensing. The determination of need in California right now is made by a multiple agencies. We need to be able to have a one-shop stop, a one-stop-shopping area where we can go in, have a determination of need made, and have all agencies both state and federal agencies accept and acknowledge that.

If I look at the licensing process right now, even under the best of circumstances it takes two years to license a transmission project. If I look at a more realistic process, one that might involve new rights-of-way, or may involve going through service territories beyond our geographic region, that process goes from two years, to three years, to four years, and perhaps even five years.

We need to be able to cut that back to 12. If we look at the infrastructure that exists today -- I mean you

heard in Arizona there are thousands of megawatts sitting idle. And here in California that we're all worried about keeping the lights on this summer. Yet if we had the ability to permit infrastructure more quickly, we could respond to these opportunities and save our customers tens to hundreds of millions of dollars.

The environmental siting route-selection process. Before a utility can file a CPCN for transmission, it must go through a process where we do an environmental scan first. We submit the CPCN and then, all over again, the State conducts an environmental process. We need to consolidate this and do it together. And we need to be able to pursue that environmental scanning in parallel with the determination of need.

Next, we believe there still needs to be a federal backstop. We can't just rely upon what we have in ability to just look at one state, because transmission quite often goes beyond the borders of a state or it goes beyond the jurisdiction of individual state agencies. So we need the ability to have the federal backstop.

If I look at San Diego, we have roughly 200 miles of border separating us from our neighboring counties. Out of those 200 miles of border, special interests -- and of those special interests are made up of State forest land, national forest land, made up of wilderness land, made up of

Indian reservations, encompasses 186 miles of those 200 miles.

That basically leaves an opportunity if we need to construct transmission a 14-mile window to look at, unless we have the ability to have a federal backstop to look at federal lands. We need that.

Collaboration; it's paramount. We cannot do anything without collaboration, which we have here today with the FERC and the CPUC. But that collaboration has to go way beyond FERC. It has to go to the DOE, it has to go through the Department of Interior, it has to go to the State forests, everywhere. It can't just be within a small group. Because I'll tell you the number one thing that kills transmission is NIMBY issues. Nobody wants to have this is in their backyard.

And, to be very honest, if a project doesn't specifically benefit a geographic region, that region will do nothing to support you in building transmission. And that puts all of the burden back on you to basically override those decisions.

And everybody knows as soon as you do that politics play into the equation. So we have to find ways to get everyone to collaborate and look for the opportunities to pursue this.

I have sitting before you, and we have copies for

anyone in the audience who would like this, a summary of these comments. And plus I want to just talk very, very briefly about three major transmission projects we've pursued.

Five years ago we started the Valley Rainbow Project. I'm sure all of you have heard this term. It was a $350 million, $340 million transmission link that would link San Diego to Southern California Edison's 500-kV grid. Project, the ISO determined very quickly it was needed.

If the project were authorized to go into place in 2004, as originally requested, it would save in its first two years of operation, in release of congestion and reduction in RMR costs alone, $191 million dollars for a $341 million project. And those numbers climb every -- every year thereafter.

Another project. You heard Sean Gallagher talk a little bit about the Miguel Mission project. This is a project where we identified it in 2001. The Commission gave us authorization to construct in 2004. We had hoped we'd have it in service in 2004.

We did go back after we got authorization. And I will tell you the Commission under President Peevey's leadership was very quick to respond to some very innovative changes we made to the project. We -- and I can announce today -- actually as of yesterday -- we energized the 69-kV

line at 230 kV. That project will save us, if I look at releasing congestion and reduction in RMR-related costs and a reduction in premiums paid to these RMR generators, $50 million dollars in the first year. The cost to advance that project by over 12 months was $3 million. So there are significant opportunities.

The last project I want to just highlight is we are pursuing right now the start of a new 500-kV link out of San Diego, once again. I will tell you if we do not have the ability to get collaboration among all state agencies and federal agencies, this project is doomed. But with this project we will be able to achieve a goal of 20 percent in renewables, because this project takes us right through the Imperial Valley area where we can tap into hundreds of megawatts and perhaps as much as a thousand megawatts we can bring into San Diego. Without the project we have no hope of achieving those goals.

Thank you.

MS. SIMLER: Thanks, Jim.

And our last panelist for the day is Nancy Day, Board of Directors of the Los Angeles Economic Development Corporation.

MS. DAY: It's really a great pleasure to have the opportunity to address you here today. And I am the beneficiary of being the clean-up batter, because everybody

who has preceded me has given you lots of information that's actionable. And I'm going to be a historian.

Coming up here, I pulled out a report that was prepared in April of 1992 under the leadership of Governor Pete Wilson. And he had pulled together an esteemed blue ribbon panel to look at what was -- look at what we could do to correct the malaise that was afflicting California in 1992.

The report starts out by describing "A biting economic wind is blowing in California. It brings with it a feeling of personal threat, broken promises, and a sense of crisis. The economy is stagnating while the government appears immobilized."

Among the many problems this panel described as afflicting California, they noted "A permitting-and-regulatory quagmire that overwhelms small and medium-sized business managers and, in some cases, causes projects to take longer to get started than it took the United States to win World War II."

Mr. Geesman, in your opening remarks you identified institutional inertia as a problem. Mr. Avery and I did not rehearse our comments here today. In fact, it's my --

MR. AVERY: I looked over your shoulder.

(Laughter.)

MS. DAY: -- esteem pleasure to meet him.

But I want to say to you that the road to hell is paved with good intentions. And that if you keep doing the same things expecting different results, you are truly going to be disappointed.

You have so many opportunities to continue to demonstrate the stellar leadership you have brought to bear on these problems to date. But I want to suggest to you that I want you to behave in a more revolutionary fashion.

I want you to be as agitated as consumers will be when they look to point the finger at someone for their failure to plan and act. Don't let that someone be you.

We can't afford to let our load growth, our retirement continue to outstrip our production of energy and our ability to deliver it to those who are relying on us to do it.

And someone, I think on this panel, said just a few minutes ago, "Don't look to the market participants to solve the problem. Consult with them, invite their input, elicit their suggestions, but ultimately you are the decisionmakers."

Pat, I know you don't have much time, but before you get on that bus back to Texas, do me the personal favor of gathering up what needs to be done in one year's time and commit to a timetable with pinpointed accountability as to

who is going to do it.

Thank you.

CPUC CHAIRMAN WOOD: Was that rehearsed?

MS. DAY: Merry Christmas.

MS. SIMLER: Thanks a lot.

CPUC CHAIRMAN WOOD: Let's make it a happy 4th of July. Let's do it sooner than Christmas. Thank you.

OPPORTUNITY FOR PUBLIC COMMENT

We have had the requests of two members of the public of the audience that would like to speak. And I think before we jump into questions with this panel, why don't we invite Lynn Brown. Lynn still here?

(No audible response.)

FERC CHAIRMAN WOOD: If not, she may be outside and we'll ask again.

And Robert Sarvey (phonetic)?

(No audible response.)

FERC CHAIRMAN WOOD: He might have left. Well, if they're back we'll get them before we close out today.

But, Commissioners, Yakout, questions for our panel members here, comments?

Dian.

CPUC COMMISSIONER GRUENEICH: I won't be shy. It really is for Armie and Don Kondoleon. It seemed to me that one could envision considerable overlap, duplication, and

possible inconsistent results between what I heard of what the ISO is doing on its transmission planning of basically developing a transmission needs assessment, is the way I think of it with regard to the ISO area, and then the very -- the multiple, it sounds like, various reports and studies that the CEC is doing on transmission planning.

And I'm wondering if underneath this what's really happening is the two of you are buddies and were working together. But would it also be plausible to perhaps to do it jointly and maybe you all already are doing it and you just post it on each other's websites. Because, again, I'm sort of thinking about what the stakeholders this morning with the resource adequacy of it doesn't -- we want to present our resource-adequacy effort as something other than we spent a year here at the PUC doing and now Yakout's going to very ably -- and I think we'll be able to say how there is a credible next step in that process.

And so I wanted to raise the same sort of issue with regard to the transmission-planning efforts of your two organizations.

MR. PEREZ: Well, you're either a mindreader or you were behind us, because right after lunch the first thing I did is went to him and said, "You know what we're going to do, and what I want to do is within the next couple of weeks get together with you and see how we integrate

these two pieces together."

CPUC COMMISSIONER GRUENEICH: Again, as the new Commissioner I'll just say it sounded like there was a lot of --

MR. PEREZ: I think you're a mindreader.

CPUC COMMISSIONER GRUENEICH: -- duplication.

FERC COMMISSIONER BROWNELL: Chris, and maybe, David, you're involved in a lot of projects in other parts of the world. We tend to be a tad parochial here in thinking that we're the first to do anything.

What lessons can you share with us about your experiences in other places, particularly where they seem to actually be building transmission?

MR. PARQUET: I'm not specifically familiar with all the other things we're doing around the world. Although I will say that we are examining the acquisition of transmission systems and looking at the structure that is there on the ground today.

Also looking at, and having participated in this line I mentioned between Australia and Tasmania, I think that many of the issues we're dealing with here occur down in the Australian area. Maybe you can comment on that, Chris. But from what I can tell there are issues of -- one point that I left out, because I was already speaking long enough, there are two ways to get rate recovery on an

independent, newly-developed line. One is cost-based rates. The other one is market-based rates. And I think the same issues of who is going to pay for the -- for the ultimate project is a similar one.

For example, the -- just to pick on some -- a project we're not involved with, the Neptune Project in -- that connects New Jersey with Long Island. That project is -- started out as market-based rates in the sense that I would consider it market-based rates. And that is independent parties, generators, so to speak.

Large power marketers were involved in that, willing to take a position in the price difference. In the end, the Long Island Power Authority basically purchased, similar to a power purchase agreement.

I've seen the same type of process happen with either market-based rates -- rates or power purchase agreements, let's say, down in the Australian area. I see people dealing with that issue. And that's a tough one across -- especially if you go across state borders.

MR. LESLIE: Okay. And as advertised, I do have to leave to get on a plane, but that's okay.

I think one point of distinction that bears noting is that many of the so-called successful market designs around the world, and I know President Peevey is familiar with the state of Victoria in Australia, is that they were

born out of government privatization, which is obviously not the case in the United States.

And so while we can say that Victoria works and the UK works, they had the luxury of being able to stand back, in some cases, take note of what happened in California, and design their markets appropriately.

I think the challenge --

FERC COMMISSIONER BROWNELL: And by that there is structural separation of both of those.

MR. LESLIE: Yeah, there's structural separation of transmission. Here I guess we have the challenge of shareholders of the incumbent utilities, together with a diverse range, obviously, of municipal and not-for-profit agencies as well. And so the problem is inherently more complicated here.

And whilst it's convenient to say why don't we just do what happened in the UK, I'm not sure that it necessarily is practical. And so the challenge here is in some sense is to have -- or one of the preconditions is to have the political will and the courage to move forward with these market-design reforms while at the same time respecting the fiduciary obligations of the utilities to their shareholders.

I think in many cases you may be moving -- or asking the utilities to do things that they have a fiduciary

responsibility not to do. And so in that sense you're -- you're setting up a tension which never really existed in some of these foreign markets.

What I would say, though, is even turning attention to the United States, is that there has been -- there are successful models. And it's true even in the foreign markets that nothing is perfect. And you're never going to get a perfect solution out of the box.

We heard earlier about being in perpetual transition, and I think every market is in perpetual transition. And we shouldn't be afraid of transition, and it's necessary to sort of jump in, take some lessons from the Northeast, take some lessons from PJM.

The car has been invented, has got -- has got an engine. Maybe you need a new steering wheel, but kind of -- it's not the whole box and dice that needs to be reinvented.

So I think, you know, the lights are on around the world. Take comfort from the fact that -- that these systems are basically working and don't be shy about taking a few apparently courageous decisions, because they might not be as courageous as you might expect.

And then -- excuse me again -- at the risk of sounding like a heretic, I think from the investor's point of view, and maybe taking my economics background from -- from a market point of view, the sort of the full profit

regional model that the FERC had originally promoted, which obviously encountered a lot of resistance, still sort of resonates in the eyes of investors as being a sensible solution. However, I think the political realities make that very difficult.

However, I think between that extreme and taking lessons from PJM and elsewhere, that there is a regional solution for the West that California can take a lot of leadership in. And there's a lot of guidance on how it might work sitting out there already.

And with that I'll have to I apologize and take my leave.

CPUC CHAIRMAN WOOD: Thanks, Chris.

CEC COMMISSIONER GEESMAN: I had a couple of questions for Sean Gallagher.

CPUC COMMISSIONER GRUENEICH: Oh, get back.

CEC COMMISSIONER GEESMAN: A few years ago the CPUC staff asserted jurisdiction in TransElect improvements to Path 15. Some of us did not consider that particularly helpful or well attuned to California's transmission needs.

What kind of jurisdictional approach would you envision taking the City of Pittsburg's project?

MR. GALLAGHER: It's a good question. It's one we're looking at right now.

CEC COMMISSIONER GEESMAN: Do you have anything

more to --

(Laughter.)

MR. GALLAGHER: No, I don't.

CEC COMMISSIONER GEESMAN: I encourage your careful review of it.

CPUC PRESIDENT PEEVEY: Well, perhaps, Mr. Parquet, I was going to ask the question, but Geesman beat me to it. But was that an oversight on your part that you didn't mention the PUC as a possible permitting agency here?

(Laughter.)

MR. PARQUET: No, Mr. Peevey, it was not an oversight. When we -- we originally conceived this project over a year and a half ago, at the time there were a number of very cosmic things going on, if you'll think back to that period. The Jefferson-Martin effort had -- had not been finalized. People were still struggling with that, a very difficult project, to say it creates a lot of noise.

Secondly, the Hunter's Point decision had not been made. The Potrero RMR decision hadn't been made. The peakers hadn't been applied for in San Francisco.

In the face of all of that noise and our own independent investigations, we looked at a way of just cutting to the chase and getting it done. It is clear that municipal entities are allowed to site transmission lines. It is clear they have sighting authority to do late-agency

status. It is clear that they have condemnation authority outside of their borders. They had all of the capabilities of doing it. We cut to the chase and we proposed it.

We have -- now if we were to be considered as a PUC sighting process that would imply or require a jurisdiction of someone, either us or the City of Pittsburg, neither one of which is true. So you have kind of a dilemma there.

So, first, the facts did not represent themselves as being responsive to a PUC oversight. And, secondly, we had a solution on the table for a very critically needed project and one that could cut right through all of the issues. So we did it.

CPUC PRESIDENT PEEVEY: When you come ashore in San Francisco who do you tie into?

MR. PARQUET: We tie into the Potrero Substation, interconnecting with the Pittsburg Substation.

CPUC PRESIDENT PEEVEY: Doesn't PG&E own that?

MR. PARQUET: PG&E owns that, that's correct. We are now in the final stages of completing an interconnection study for the interconnection of those two substations.

CPUC PRESIDENT PEEVEY: Is there any upgrade needed there, Mr. -- Steve? Any alteration of that substation necessary to accommodate this DC line? I would think there would be.

MR. METAGUE: Yes. Yes, we're following on the order 2003 Interconnection Proposal of Orders of the FERC. We are in discussions with Babcock Brown.

Yes, there will be some upgrades needed. The true scope of those are not yet completed -- the studies are not completed.

MR. PARQUET: One thing I'll mention, though, that is clear, though, is that at least as of today we had no intention of increasing the footprint of the substation. It appears there are sufficient interconnection points. And that would be one item that would require a PUC action.

CPUC PRESIDENT PEEVEY: It's tough to avoid us, isn't it?

MR. METAGUE: Pardon me?

CPUC PRESIDENT PEEVEY: It's tough to avoid us, isn't it?

(Laughter.)

FERC CHAIRMAN WOOD: Yes, it is.

(Laughter.)

CPUC COMMISSIONER GRUENEICH: Yes, sir, it is.

MR. METAGUE: Where Commissioner Pe- --

CEC COMMISSIONER GEESMAN: I've got a solution to that, Mike.

CPUC PRESIDENT PEEVEY: I'll be in the office next week if you --

(Laughter.)

MR. PARQUET: We're looking for your active support of the project, Commissioner Peevey.

CPUC CHAIRMAN WOOD: I think that we've heard from Steve. And I heard versions of it, I think, also from Jim. But I will task down what the FERC can do. And I just want to say we heard those and we've actually heard them recently as well in an other forum halfway across the country. So we will -- we're actually moving, trying to take some action on that in the near future.

Thank you.

MR. METAGUE: Thank you. I appreciate that.

CPUC CHAIRMAN WOOD: Thanks for bringing those up.

There are two -- did Ms. Brown or --

MS. SIMLER: We haven't been able to locate them.

CPUC CHAIRMAN WOOD: Well, goodness gracious, look at that.

MS. SIMLER: Yeah.

FERC CHAIRMAN WOOD: We're going to finish on time.

(Laughter.)

CPUC CHAIRMAN WOOD: Jamie, anything? I've got some housekeeping, --

MS. SIMLER: Oh, you got two announcements, yeah.

FERC CHAIRMAN WOOD: -- two housekeeping items.

As mentioned before, anybody that's interested, we'll also make this available on our website, anybody that's interested in providing any feedback, thoughts, let's do it in a relatively short timeframe, why don't we say by the end of next week. That would be?

MS. SIMLER: The 10th.

FERC CHAIRMAN WOOD: The 10th of June. Any comments on -- for tracking purposes at our agency, and you can also filed these electronically, of course, the docket is AD, alpha delta, 05-11.

And we are in California, leader of the world in recycling and let's includes your badge. So please leave it at the front desk.

And that we thank you for coming and look forward to continuing to work together to get everything back on track. Have a good day.

(Whereupon, at 3:10 o'clock p.m. the Technical Conference was adjourned.)

CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceedings before the FEDERAL ENERGY REGULATORY COMMISSION in the Matter of:

Name of Proceeding: TECHNICAL CONFERENCE: ENERGY INFRASTRUCTURE and INVESTMENT in CALIFORNIA
Docket No.: DOCKET NUMBER AD05-11-000
Place: CPUC, SAN FRANCISCO, CALIFORNIA
Date: June 2, 2005

were held as herein appears, and that this is the original transcript thereof for the file of the Federal Energy Regulatory Commission, and is a full correct transcription of the proceedings.

Susan Palmer
Official Reporter