BEFORE THE

FEDERAL ENERGY REGULATORY COMMISSION

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IN THE MATTER OF: : Docket Number

TECHNICAL CONFERENCE ON INTERCONNECTION: AD08-2-000

QUEUING PRACTICES :

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Hearing Room 2C

Federal Energy Regulatory Commission

888 First Street, NE

Washington, DC

Tuesday, December 11, 2007

The above-entitled matter came on for technical conference, pursuant to notice, at 9:35 a.m.

BEFORE:

Chairman Joseph T. Kelliher

Presiding.

Present:

Commissioner Jon Wellinghoff, Commissioner Marc Spitzer, Commissioner Philip Moeller and Commissioner Suedeen G. Kelly.

P R O C E E D I N G S

(9:35 a.m.)

CHAIRMAN KELLIHER: Good morning.

Why don't we close the doors in the back.

I want to welcome you to the FERC technical conference on Interconnection Queuing Practices. I am very impressed with the level of interest in this technical conference.

The purpose of the technical conference today is to discuss issues relating to the interconnection queue in different regions of the country. The interconnection queue process, of course, is governed by Order Number 2003, which standardized the agreements and procedures related to the interconnection of large generating facilities.

The rationale for this important rule was that establishment of a standard set of procedures as part of the open access transmission tariff for all jurisdictional transmission facilities will minimize opportunities for undue discrimination and expedite the development of new generation while protecting reliability and ensuring that rates are just and reasonable. I believe this objective is still sound.

We pursued this goal by establishing a set of comprehensive queue management procedures. However, some regions of the country are experiencing various challenges

to the interconnection queue process.

In general, surges and development of new generation are taxing the queue management process. Unprecedented demand in some regions for renewable generation presents different challenges. The planning horizon for wind generation may be shorter than for other generation facilities. Wind facilities can generally be brought on line more quickly. Any delay in the interconnection process is significant.

There also is the reality that many states have adopted aggressive renewable portfolio standards, which drives much of the demand for new and renewable energy facilities. In regions that have adopted capacity markets such as New England, the key issues are different still. A question of whether a resource that is chosen through a capacity marketing auction moves to a higher place in the queue has arisen. Queue management issues are not limited to the organized markets. They stand outside regional transmission organizations and independent system operators.

Order 2003 adopted a first come-first served approach to queue management. That has a manifest virtue of preventing undue discrimination in prefacing queue management. However there are competing policy goals such as a need for new electricity supply, the demand for renewable energy driven in large part by state renewable

portfolio standards, and the need to complement newly established capacity markets.

Today the purpose of this conference is to identify the various challenges relating to the queue management process with some precision and to explore possible process reforms. Perhaps there are different approaches to the queue management process that better serve these competing policy goals while still guarding against the potential for undue discrimination in preference.

I think there's sufficient flexibility within Order 2003 to adopt certain reforms. I want to commend Ray Palmer. This is the maiden voyage, you could say, and I want to thank Ray and his staff for organizing this conference today. I think it's very well organized and the briefing books are very helpful.

I do want to encourage the speakers -- ask the speakers in their comments to differentiate between proposed solutions, short-term solutions, to deal with immediate queue problems and differentiate those with longer-term approaches that we might want to consider.

And I do want to provide an explanation: I have to leave this technical conference a little early. I'm going to stay for the panel of our state colleagues. But I will have to leave a little bit earlier. We have an important congressional hearing tomorrow regarding our

authority to permit market manipulation and I have some meetings on Capitol Hill regarding that hearing.

But I don't want anyone to infer from my departure that I don't have an interest in this subject. It's just tomorrow's hearing is very important.

In my absence I've asked Commissioner Kelly to chair the hearing. And in my absence I think it's only fitting, since this technical conference was her idea in the first place. I assure you I will review the record of the technical conference after we're done. My staff will participate.

With that, I will turn to my colleagues and ask them to make some opening statements.

Commissioner Kelly.

COMMISSIONER KELLY: Thank you, Joe.

Thank you all for being here.

I think we're here today almost because of an embarrassment of riches from open access in Order 888 and Order 2003. How they combined have provided significant business opportunities for merchant generators in many parts of the country, particularly generators in renewables. And we've seen the response. The response has been overwhelming in some parts of the country.

So it's now time to look at our interconnection process and see whether there are tweaks that need to be

made to ensure that we can continue to study these projects and interconnect them as quickly as we need to.

I know that today we're going to hear from a number of different panels. I want to thank you all for being here, particularly the states, to tell us what the concerns are for you.

The subsequent panels are going to talk about whether the first come-first served goal is the only goal we should be following.

As Chairman Kelliher suggested, there are other potentially competing policy goal or goals that we need to consider as well. We'll be looking today at options for reducing the size of the queue, options for managing a large queue, including perhaps clustering, stricter milestones in the study process, perhaps the use of outside consultants to help the study process move along and other options for facilitating queue management, including perhaps open season, which Bonneville is exploring.

I'm looking forward to a very productive day. I like the idea that we're having a conference here not only to highlight the problem but also to talk about solutions and solutions that we can implement on a quick basis.

Thanks.

CHAIRMAN KELLIHER: Commissioner Wellinghoff.

COMMISSIONER WELLINGHOFF: Thank you, Joe.

I think the queue process is broken; it needs to be fixed. In MISO we have 85 percent of the development of the queue is wind in Cal ISO. 61 percent of the development is wind at a critical time when we need to get these renewables online. We've got to figure out how this process can be made more efficient, more effective, for the developers waiting patiently for the place in these queues so we can get these renewable portfolio standards set aside, but more importantly so we can reduce greenhouse gas emission through the use of renewable resources that are waiting to be put on the transmission line.

I want to definitely thank all the panels for participating in this. And I really want to thank the Energy division sector for their work in organizing this panel. What you put together is very useful and very helpful and I'm very much looking forward to the proposed solutions people are going to offer today.

Thank you.

CHAIRMAN KELLIHER: Commissioner Spitzer.

COMMISSIONER SPITZER: Thank you, Mr. Chairman.

I first want to thank Commissioner Kelly for meeting with me and bringing this issue to my attention a couple of months ago. Then we heard from the community, and that has been very helpful as well, as well as the materials that we've received, each of which in its own way proposes

some solutions.

It's my hope that with the work of the Staff we can move forward in fleshing out some of these proposals and discussing the pros and cons. Clearly we have a paradigm that was based upon the combined cycle gas turbine. The realities are quite different from that original paradigm. It's always a challenge from government to keep up with changes in the marketplace and changes in technology. And I think that is one of the impeding factors in the current circumstance.

The second -- and it's been alluded to -- and why we're so appreciative of our state colleagues being present at the first panel -- is the state parties regarding renewable standards. Having spent many years -- in fact, my first vote as an Arizona Commissioner in 2001 was an RPS and making modifications to that. It was a long difficult process during which many competing interests had to be balanced.

Each RPS is going to be reflective of the circumstances and priorities of the states. That's entirely appropriate with our federal system. But I am very cognizant of the importance of the state RPS and the need for the Federal Government to accommodate where it can state interests.

We've got that further dilemma of where the

Federal Government must have uniform federal statutes and rules, yet be flexible enough to accommodate the divergent interests of the various states. That's appropriate.

What jumped out at me in reading both the Staff's matrix as well as some of the proposals from the jurisdictions, the ISOs and the parties, is this dilemma of efficiency and fairness. Obviously there are some areas where there can be a harmonious resolution. But there can also be a tension.

I remember in my days in the legislature I would have wind developers come and -- I don't mean to be pejorative, but the ponytail set, because I can't grow a ponytail. And those folks would come in. And then you had the mainstreaming of the ponytail folks who now have to live harmoniously with the suits. And there is, frankly, a tension.

I would like that discussed for those who are working on the proposals, including changing first in time milestone standards, increasing application fees, the concept of open season. These are all very intriguing and interesting. But I want to make sure that we don't in our goal of getting more renewable resources online and increasing the efficient interconnection to reduce the queue, I don't want to sacrifice the fairness with the idea that each developer, regardless of their wealth and

financial circumstances, has the ability to have a fair opportunity because government is also about fairness as well as efficiency. Aligning it properly to calibrate those competing interests I think is a real challenge.

That challenge I think is going to be how we dispose of these various proposals, all of which I'm very excited about and looking forward to listening to.

Thank you very much, Mr. Chairman.

CHAIRMAN KELLIHER: Commissioner Moeller.

COMMISSIONER MOELLER: Thank you, Mr. Chairman. I want to thank you and Commissioner Kelly for holding this and having the idea to essentially get us all together here. It's a Staff-led conference. But the five of us are here, which should indicate our level of interest in this subject.

I, too, want to thank the panelists, many of whom came from a long ways away and made a significant effort to be here, and the fine work of the Staff in putting the material and the conference together on relatively short notice.

As Commissioner Kelly said, this is, though, kind of a good problem to have. You might not think so as a developer. But we did have the issue about 2000, 2001 where queue problems were creating a real uncertainty, particularly in the west. And then that faded away. As the glut of generation was out there and obviated the need for

new plants. Now we have the same problem. So it's a challenge.

But it's a challenge of riches in figuring out a more efficient way of dealing with people who want access to the grid. But it's clear that not only the raw numbers we've heard about the size of the queue throughout the country in the different regions. But the level of interest in this room and presumably on the Internet, this is something we need to deal with sooner rather than later.

I also want to point out that we don't want to forget that we still need more transmission in this country. Although that will not be a cure-all for all the queue problems, it will certainly help alleviate some of the problems we have. And obviously more infrastructure will benefit the markets and the products that are being sent to markets.

Thank you again for holding the conference, Mr. Chairman.

CHAIRMAN KELLIHER: I just want to repeat my colleagues. We've all been impressed with the preparation for this. We were impressed it wasn't a six-inch binder. I think that has something to do with the organizers. The prodigal daughter, Mary Morton.

MS. MORTON: That's what happens when we have a short time to prepare.

(Laughter.)

CHAIRMAN KELLIHER: I'm giving you the benefit of the doubt. You knew your market, you knew your audience, and you gave us exactly what we needed. Not every piece of paper in the building that related to the queue.

So I do want to thank my colleagues, our state colleagues for being here. I think we have some of the best state commissioners and regulatory staff. I hope you won't tell your colleagues that I just said that.

(Laughter.)

CHAIRMAN KELLIHER: Why don't we turn to Ray just to provide a few words about how the day is going to proceed and an overview of the meeting.

MR. PALMER: Thank you, Mr. Chairman.

I would like at this time to remind the audience to please silence your pagers and cell phones.

Also just to announce that if anyone needs to use the facilities they're located behind the two elevator banks on either side of the Commission room.

I also remind the speakers that we would like to keep your comments to five minutes. For your convenience, we have a timer available. This timer, there will be a green light and then it turns yellow when there's a minute left where you presumably should start summing up, and then red light when the five minutes are up.

Also, if the speakers are unable to get all their points made that they would like to during their time, we will be taking written comments for a period of thirty days after this conference -- that is until January 10th.

I believe that's all the administrative announcements. And I will turn it back to you, Mr. Chairman.

CHAIRMAN KELLIHER: The first panel is seated. Why don't we start at the beginning.

I'd like to recognize the Honorable John Norris, Chairman of the Iowa Utilities Board and president of the Organization of MISO states.

Welcome.

CHAIRMAN NORRIS: Thank you, Chairman.

Thank you, Commissioners, for this opportunity. In ginning up this first panel you've asked us to address how the current queue processes are affecting attainment of state policy goals. Let me just add this also has the potential to affect federal policy goals as we see RPS and fuel diversification issues arising at the federal, too.

It has become broadly recognized that the interconnection queue process has become a serious impediment to the development of the new generation resources. If you literally interpret the MISO queue it would be 300-plus years to process all current requests. If

we break it down into study groups it would shorten that time frame under MISO's restriction to only 40-plus years. For Iowa and the Midwest this represents a serious obstruction, particularly to wind development.

Currently MISO has over 71,000 megawatts in the active queue process. Of these 55,000 megawatts are wind projects. In the western portion of MISO that represents 49,000 of those 71,000 megawatts in the active queue process. Iowa currently has 992 megawatts of wind generation and an additional 384 megawatts of wind generation are under construction in Iowa.

Iowa has 24 active projects in the MISO queue. Approximately 4,023 megawatts of potential generation in Iowa is in this MISO queue. About two-thirds of potential generation in the MISO queue is expected to come from wind. So about two-thirds of Iowa's queue backlog, if you will, represents wind.

As some of you are aware, seven Midwest governors recently sent a letter to MISO CEO Graham Edwards experiencing serious concern for the interconnection queue process and backlog and its negative impact on wind's development. This queue backlog will have serious consequences, real consequences for states with newly enacted RPS standards and goals.

We sent an advance staff of the Iowa Utilities

Board to prepare just a quick summary of recently enacted standards or goals of Midwest states of renewable portfolio standards. Iowa former Governor Vilseck set a goal in Iowa by 2010 to have 1000 megawatts in wind. We are now only eight megawatts short of that in 2007.

And of course one mistake I made was Iowa on this, our new Governor Culver has set a goal of 2015 megawatts renewable energy by 2015. We can get there. But it's going to involve fixing this queue problem.

I think many of these RPS goals and standards set by Midwestern states are achievable with the exception of having to fix this queue problem. It also -- to put this in perspective, what it means for Midwest states, an April '07 study entitled Projections of Wind Generation in the Upper Midwest says there are 11,289 megawatts of new generation worth $22.5 million in the twelve states that will be constructed between 2007 and 2013. This represents $59 million of these payments to farmers and ranchers, $148 million in property taxes largely benefiting the rural schools who need those resources, and over 10,000 jobs. So we're talking about real consequences for not getting this fixed.

The current process is broken and needs to be fixed. We think we need to recognize that renewable generation requires shorter time frames to install; that

while the stakeholder process is focusing on long-term solutions, the short-term solutions are essential to fix this backlog in the queue.

I would note that in the 2003 order the focus -- and I'll quote this:

"This delay undermines the ability of generators to compete in the market and provides an unfair advantage to utilities that own both generation and transmission."

A number of reasons are listed under Important Factors for the standard interconnection process to limit opportunities for transmission providers to favor their own generation. I bring this to your attention because what I think we have done here is in the emphasis to avoid undue discrimination largely targeted on transmission owners and generators we have now had this first in-first out process that extends undue discrimination probably to where we didn't need to extend it, and that many of the people in the queue -- entities in the queue have significantly different circumstances and that they probably don't need -- or should be treated equally.

So I would just urge you to look at are we extending this unfair discrimination beyond the intent of 2003 and we need to treat these proposed generation facilities differently, and they shouldn't necessarily receive a -- quote -- equitable treatment in the first in-

first out process.

Secondly, I would just encourage you to continue to create opportunities for transmission investment. MISO was looking at the verification of transmission projects through the long-term expansion planning projects to address remote-located generation such as wind.

I would also encourage you to continue to press forward on transmission investment, allow planning for transmission to have equal footing with planning for generation.

Thank you very much.

CHAIRMAN KELLIHER: Thank you very much, Chairman Norris.

I would now like to recognize the Honorable Ron Binz, Chairman of the Colorado Public Utilities Commission.

CHAIRMAN BINZ: Thank you, Chairman Kelliher and members of the Commission. I appreciate the opportunity to speak today. I am here to talk about the situation in the intermountain west.

Although I have attempted to gather anecdotal information from my colleagues, you should take my comments to be my own. Nevertheless there are certain characteristics of the intermountain west that I think ought to inform any changes you make in your rules governing the queue process.

I was appointed in January by the new governor of Colorado who made Colorado's new energy economy a major plank in his platform in running for governor. The energy economy in Colorado, the energy industry in Colorado is inextricably tied to our state's economic development given the wealth of renewable resources in our state.

Colorado is blessed with huge amounts of wind resources and solar resources of the type that can eventually be turned into base load dispatchable solar resources through concentrating solar. You're going to hear a lot about wind today, but you should also keep solar in the back of your head as you consider this.

Colorado's economy is tied to this not only in the energy industry per se, but also in the ancillary businesses that attend that, such as manufacturing. Colorado is now the site of a 400-employee wind blade manufacturing facility from Vestis in Winds for Colorado. That's in our view just the start.

While queuing may be an abstruse issue in some ways, once you start tracing what its effect is you're going to find that it's going to be right at the heart of what a lot of these states wish to be able to do.

In some ways you've got a tale of two countries here. You're got the organized markets, mostly in the Midwest and the northeast. You've got the intermountain

west, which is largely still a vertically-integrated regulated utility structure. That means that you are going to see in the west probably not only a maintenance of the amount of integrated resource planning, but probably an increase in that as climate change requirements come down either from state legislatures, regional regulatory authorities, or congress, eventually.

So I think you need to again accommodate that consideration as you view various changes in these rules.

And you may want to consider that your rules ought to accommodate separately states such as ours, which enforce the competitive bidding for contracts for power for the utilities who regulate the concerns about the potential of a transmission owner to affect the fairness of the selection of resources is in some sense mitigated in our state by regulatory control over how those resources are acquired by the utility. We support, of course, the thrust of the series of decisions, beginning with Order 888. However, there are some problems with the queuing process.

I'll be the second in a line of five who are probably going to list many of the same issues. One issue is the phantom project issue projects which inhabit the queue. They've gotten there for a $10,000 down payment only to eventually never show up in the resource selection eventually.

Another is what I'm going to call the PTC gold rush. Every time Congress rolls over on the PTC you suddenly get a rush of projects all ready to go all of a sudden. That's nothing under your control but you can use your good graces to convey to Congress how their start-stop approach on PTC is wreaking havoc in the states with these kinds of issues.

The prioritization of first come-first served is in some sense inconsistent with the IRP process. Excel Energy has created a work-around in Colorado. I'm going to cite a paragraph in their OAT, Paragraph 4.2.2. That basically allows the clustering by the load serving entity and also permits them to obtain multiple scenario studies from transmission organizations, something which they found to be very useful. I want to be sure to highlight that.

I'm going to just skip to the end here I think that's tweaking or clustering rules along the lines that you suggested is something we would support you moving forward on. Considering open season I don't know the implications of that. But it is endorsed by some folks I've been talking with. And I think it's certainly worth considering.

Finally, I realize this is the third rail of transmission regulation. But I think reviewing your standards of conduct and considering possible modifications, especially in those states where you've got a state

regulatory commission with its hand on the tiller ensuring that the state's resource planning supports improved processes might promote reasonable amounts of communication between transmission owners and companies which have vertically integrated resources.

Thank you very much again for this opportunity.

CHAIRMAN KELLIHER: Thank you, Ron.

I'd like to now welcome the Honorable Anne George, Commissioner with the Connecticut Department of Public Utility Control Authority.

COMMISSIONER GEORGE: Thank you.

Good morning to everybody. I am a Commissioner with the Connecticut Department of Public Utility Control. But I'm also immediate past-president of the New England Conference of Public Utility Commissioners. I'm here this morning on behalf of those entities.

I appreciate this opportunity to give you the New England perspective, which is somewhat different than I think the other panels' perspective. As the chairman acknowledged, new capacity markets have emerged that did not exist before your Order 2003. They have created a potential conflict with the current queue procedures. That is the issue that is being dealt with now in New England.

We had a broad stakeholder processes, as you know, that came up with the forward capacity market that was

approved by this Commission. We have been very encouraged by the enthusiastic response to the forward capacity market's new generators and demand response providers. They have submitted qualified offers to provide more than 6500 megawatts of new capacity for this February auction, which is the first auction under the forward capacity market.

This uniquely competitive capacity market offers a long-term prospect for reliable new capacity when and where it is needed. Nevertheless state regulators and others within the region remain concerned that the interconnection queue in its present form can disqualify efficient low-cost generators from participating in the forward capacity market, thereby undermining the central objective of a fully competitive market for new resources.

Under ISO New England current rules new generators with a lower queue position can be excluded automatically from the forward capacity market if their interconnection would overlap impermissibly with a higher queued new generator. As the Commission concluded in response to the Connecticut DPUC and NECPUC protest, this arrangement is far from ideal.

The New England regulators, ISO New England and other stakeholders are currently involved in a process where we're looking at harmonizing the forward capacity marketing and the queue. We have agreed to a timetable for an ISO New

England filing by October 1st, 2008.

Steve Rourke from ISO New England -- who is on your fourth panel -- and another supply representative co-chaired this special stakeholder committee charged with developing any necessary rules to improve the ability of new generators to compete in the forward capacity market. We've already held five meetings devoted to a comprehensive review of current SPM and queue rules, exploration of potential approaches to eliminating conflicts, and development of fundamental principles that will guide our further efforts.

The Connecticut DPUC has devoted substantial effort to devising a fair transparent mechanism that will permit new generators to compete directly to allocate scarce interconnection space to the most efficient least-cost resources. Under the Connecticut proposal if there are multiple requests for limited interconnection the forward capacity market's descending clock option will continue in a sub-auction to determine which resource values that interconnection the most and therefore should receive priority regardless of the queue position.

This proposal is still at an early stage, however. And other stakeholders have offered constructive and insightful suggestions and comments.

We had a very good dialogue at our last meeting where we got a lot of feedback on that proposal. We are

also in the process of identifying guiding principles for integrating the queue with the forward capacity market.

The Connecticut DPUC has proposed the following key points. Any changes to the queue process should be consistent with the forward capacity market settlement. The interconnection priorities should be allocated on the basis of efficiency and lowest overall system cost. Forward capacity market qualification procedures and interconnection request procedures should be coordinated and streamlined.

When resources have overlapping interconnection impacts competition should determine the most efficient use of that interconnection space. Resources with long lead times should not be disadvantaged by the forward capacity market and interconnection rules and should be able to compete with shorter lead time resources for scarce interconnection rights provided that they maintain their critical path schedule.

In addition, NECPUC has indicated that it will work with regional stakeholders to consider whether existing queue resources that are displaced by more efficient, lower queue projects should be permitted to recover certain incurred out-of-pocket costs related to obtaining and holding their queue position.

Finally, as the Commission stated in its notice, the unprecedented levels of renewable generation seeking

interconnection has raised unique queue-related challenges that are particularly important for the New England states where five out of the six states have RPS standards in place.

In Connecticut we have a 20 percent requirement by 2020 for the most pure renewable projects. Many of these potential projects are relatively small and locally constrained generation. And the present process does not promote their economical access to transmission.

Although we haven't addressed any specific proposals for meeting these RPS requirements, we urge the Commission to address these concerns in any of the changes you make to the interconnection queue rules.

With that I will wrap up and thank you for this opportunity this morning. I look forward to our further dialogue.

CHAIRMAN KELLIHER: Thank you, Commissioner George.

I would like to now recognize Mr. Jerry Lein, Public Utility Analyst with the North Dakota Public Service Commission

Welcome.

MR. LEIN: Thank you, Mr. Chairman, Commissioners.

North Dakota has made it a top priority to

develop the wind resources and other energy resources that we have. Actually, North Dakota is ranked number one in wind energy potential. Studies have shown that North Dakota wind could actually supply 36 percent of U.S. electric energy consumption. So far as we have about 185 megawatts of installed capacity and we have 330 more megawatts under construction hopefully by the end of the year.

We have other energy. We have hydro power. We have a 500 megawatt Garrison diversion project and we have lignite coal. We have about 4000 megawatts of installed capacity that's mostly mine-mouth generation with transmission lines east. We have about a 300 year supply of lignite coal at our present consumption rates.

Interestingly, one thing that makes North Dakota a good place to live is that we meet all of the federal ambient air quality standards in spite of having all that generation. We have worked hard and cleaned it up with scrubbers. And we would like to develop more coal generation as well.

I supplied a map showing the wind resources in North Dakota. We have some areas with class five and class six, even, areas. And we can reach 40 to 45 percent capacity factors with our wind generation.

I provided another map that shows that the wind that we have is strong in the regional generally. South

Dakota is ranked number four for potential wind generation. And actually the upper Great Plains states in general have just a tremendous wind resource.

If you contrast that to the population areas in the eastern part of the state -- or the country, there's not so much wind there.

Our problem, though, is that we're having some trouble getting interconnected. The developers are ready to invest now. MISO is estimating that many years will be needed to obtain interconnections.

We have regional transmission constraints and the failed queue process. Most of our new and existing wind interconnections have been with non-MISO participants. Western Area Power Administration, Basin's integrated system is quite a bit of it. And we're getting some interconnections with Dakota Electric Cooperative as well. But these opportunities were like low hanging fruit, pretty much. And they're about getting used up.

MISO's queue is just overwhelmed with wind interconnection requests from our region. Minnesota has 26,827 megawatts in the queue. South Dakota has 11,000-some and North Dakota has 8000-some. There's not enough regional load or transmission capability to accommodate the interconnection requests.

There's a stability constraint between the

Dakotas and Minnesota that needs to be overcome. There's further constraints between Minnesota and points east. Minnesota is not able to take all this power either. We need to maintain our minimum base load generation levels.

I'd like to offer support for the Midwest ISO queue process working group. We've been monitoring that group. And just briefly, primarily, the first in-first out needs to change. We've talked to the group about a milestone-based -- maybe even in phases -- moving through the queue.

I'd also like to support the open season proposal, which recognizes the need for new transmission. There's some more work there that needs to be done for cost allocations and so forth.

As a possible solution, there is an MTEP visionary study out -- Midwest ISO Transmission Expansion Plan -- with a proposal or a vision of a 765 kV transmission system overlaying the transmission grid to take power from the Great Plains and take it to the East Coast. Funding and sighting of such a large interstate, inter-RTO project might be difficult. Maybe we could get some federal assistance there. I'm talking maybe something along the lines of the Path 15 example.

I have provided a map of the final skeleton overlay taken from the MTEP 08 draft that's been in

production right now.

And in conclusion, I think that the stakeholder process that the Midwest ISO has is the best for going forward with finding a good solution to the queue problems. But in the long term we need significant new transmission.

CHAIRMAN KELLIHER: Thank you very much, Jerry.

I'd like to now recognize Mr. Laurence Chaset, senior counsel at the California Public Utilities Commission.

MR. CHASET: Thank you.

On behalf of the California Public Utilities Commission I want to thank your Commission for providing this opportunity to address the timely and important topic of interconnection queue management.

My remarks today will focus on two points. The CPUC is very concerned that the current queue management process will adversely affect our state's RPS goals. These goal can only be reached if large amounts of new renewable generation can be interconnected to our transmission grid.

Two, on a positive note, the key transmission stakeholders in California, including our Commission, the California ISO and our utilities, have been working toward the goal of alleviating the congestion we've been experiencing in managing our queue.

As to the first point, I'd like to convey the

message that we in California are united in our commitment to interconnect new generation facilities, especially facilities relying on renewable resources, as quickly as possible. Such interconnection is critical for the achievement of the State's energy policy goals -- in particular our renewable portfolio standard.

As you are undoubtedly aware, under current California law 20 percent of the energy used by Californians used by the end of 2010 is to be provided by renewable resources. Moreover, it's the State's policy that 33 percent of our energy is to be provided by renewables by 2020. These very ambitious goals can only be met if large amounts of new renewable generation -- primarily in-state but also in neighboring states -- can be interconnected to the grid.

However the current model of interconnection queue management, which relies on the first come-first served approach, is undermining our collaborative efforts to move towards compliance with the State's RPS goals and seriously impeding the ability of the California ISO and its participating transmission owners to carry out their existing responsibilities under Order Number 2003 in an effective and efficient manner.

To put this problem into a factual context, there area bout 70,000 megawatts of interconnection requests in

the California ISO's queue. Over half of this represents renewable generation.

I want to briefly mention just two of the obstacles to interconnecting new generation that are caused by the current queuing process.

First, under the current rules there is a disproportionate allocation of the cost of the transmission upgrades needed to interconnect new generation to only a handful of the many prospective generators in the queue. Such inequitable cost allocations are typically predicated on nothing more than the fickle finger of queue position.

Thus, Generator A proposes to build a 300 megawatt wind facility but would have to pay tens of millions of dollars or more up front and immediately to interconnect, whereas the neighboring Generator B, who has a lower queue position, will be able to take advantage of the upgrades paid for up front by Generator A to interconnect for a small fraction of the dollars that his or her competitor will be obligated to pay on an up-front basis.

The second problem derives from the first problem. Generator A, seeing these huge up-front costs, can easily and without penalty withdraw from the queue, thereby withdrawing its large initial upgrade network costs onto the next generator down the queue in the same electrical zone.

In our view the rules encourage perpetual

uncertainty and a game of tag-you're-it on generators whose facilities may ultimately be beneficial and desirable additions to the electric system. This game makes it harder to allocate costs and often triggers expensive and unnecessary restudies after an entity who has been tagged decides to withdraw from the queue in order to let some other entity bear the upgrade costs associated with a given queue position.

The other main point I want to make today is that we in California have been working hard to develop a solution to resolve the current problems we're having in managing the interconnection queue. This proposed solution has two components: A, a backward-looking solution to address the current backlog in the queue, and, B, a forward-looking solution that would provide an alternative methodology for conducting interconnection studies in the future.

Under the backward-looking solution the CISO and its transmission owners would seek authorization to manage the current queue in a manner different from the approach set forth in FERC's large generator interconnection procedures. T

he backward-looking solution would alleviate the backlog in the current queue as efficiently and quickly as possible without compromising the interests of prospective

generators seeking interconnection by establishing a set of groups for interconnection study based on the geographic location and commonality of the electrical impact. All interconnection requests in a given group will be studied together rather than in a sequence based on queue position.

The proposed forward-looking solution would typically rely on procedures different from those in the CISO's current tariff that will be implemented by means of a proposed tariff position. This solution will replace the current process of addressing interconnection requests serially based on queue position with an approached based on the use of cluster windows combined in a more efficient process for weeding out non-viable projects.

All interconnection requests that fall within a given cluster window would be studied during the period beginning after that cluster window closes.

Importantly, both backward- and forward-looking processes will be synchronized with the transmission planning process that we are developing in California in response to your Order 890 as well as with the state-initiated ready process, which is intended to identify new renewable energy development opportunities through an open multi-stakeholder study process.

We look forward to FERC's favorable consideration of these creative proposals that we are developing.

And I thank you very much for your attention today.

CHAIRMAN KELLIHER: Thank you very much.

I want to thank all the panelists for their statements.

Let me turn to my colleagues.

Commissioner Kelly.

COMMISSIONER KELLY: I have a question for Chairman Binz and Mr. Chaset.

In Texas there are competitive renewable energy resource zones. I understand that the western governors are considering something along those lines.

Do you anticipate much support for something like that? And would that help solve the queue management process?

CHAIRMAN BINZ: Commissioner Kelly, I have some news for you. The Colorado legislature actually adopted legislation this past session sort of comparable to the Texas legislation. We now have renewable energy zones in Colorado which have been identified. The report of the study group has just recently been forwarded to this Commission so we'll be looking at that.

I think that it will at least narrow geographically the focus, allowing us to sort of make rational clusters in those geographies. So I think that

will improve things, yes.

MR. CHASET: In the written comments that I submitted the other day there's a two-page appendix that summarizes our renewable transmission initiative. You know, we have pretty much everyone at the table in California working toward the goal of identifying projects in California and nearby California. We are hopeful that this process will come up with a specific set of identified resources. At some point next year that process will hopefully be integrated into CISO's transmission planning process under Order 890.

Hopefully also this backward-looking queue management proposal that we're going to be submitting to you hopefully soon will also be able to synchronize with that. There are going to be a lot of folks in the queue who will hopefully also be in the identified CREZ and be able to identify specific plans of service to interconnect significant new generation.

Our hope at least at this PEC is that these three processes can work in a synchronized and harmonious fashion to accomplish the goal of interconnecting large amounts of new renewable resources. That's going to mean new transmission.

So I hope that answers your question.

COMMISSIONER KELLY: Yes, it does. Thank you.

One thing that I take away from this panel, I believe -- and I'd like you to correct me if I'm wrong -- is that everyone here I think has said that first come-first served is no longer the only consideration that we should take into account in managing our queue process.

Does anybody disagree with that?

CHAIRMAN NORRIS: I don't disagree. I just say the first come-first served to me is based on the assumption that they're all equal coming in. And they are so disparate there has to be some process for treating them based on their characteristics -- not just first in line.

COMMISSIONER KELLY: Chairman Norris, I did like your characterization that if we're going to treat the entities in the queue without discrimination we should be looking at other things rather than first come-first served because that discriminates.

CHAIRMAN NORRIS: Yes. I mean I think it's important to continue to recognize that anybody who's a transmission owner and a generation owner -- not everybody who's a transmission owner or a generation owner unfairly discriminates. However this isn't helping anyone else in this first-in and first-out category. And it's actually creating an unjust situation.

COMMISSIONER KELLY: Thank you.

CHAIRMAN BINZ: Commissioner Kelly, I didn't get

to say this as explicitly as I might have in my comments. I think there needs to be in the case of states which have resource planning processes some ability of those states and those projects to jump the queue and get considered as a package at a higher point in the queue.

It's simply irrational for a state to go through a resource planning process only to have the queue process slow down the implementation of a resource plan which the Commission and the states typically spend a year or two developing.

COMMISSIONER KELLY: I also wanted to raise a process question.

CHAIRMAN KELLIHER: We should have I think seven-minute rounds. In seven minutes it will get us to eleven o'clock.

COMMISSIONER KELLY: Will you tell me, Ray, when my time is up?

CHAIRMAN KELLIHER: Take five more minutes, I would suggest.

COMMISSIONER KELLY: Let's see. What was my question.

CHAIRMAN KELLIHER: Sorry to throw off your questioning.

COMMISSIONER KELLY: I know it was a brilliant question.

(Laughter.)

COMMISSIONER KELLY: I'm going to pass the gavel to you, Joe, with the caveat that as soon as I can remember it--

CHAIRMAN KELLIHER: You will have five minutes remaining. It will be great, too. I may not use all my time.

If so, Staff, you get to use whatever I don't use. So think of really good questions -- better than I can ask.

But I want to follow up with Laurence.

You referred to a more efficient method for weeding out non-viable projects. There's a general interest in that among the panelists. But what is that more efficient method? Is it simply higher deposits or is it the staff launching some different indicia of progress that if not met someone goes to the back of the queue?

MR. CHASET: For example, site control is very important. One of the things we would want to see is an earlier commitment to site control.

If someone just has a project they plunk down $10,000 and they reserve a queue position. That creates some serious obstacles for folks who come along who may have a more viable project. We are going to try to work out with our stakeholders what the specific indicia will be.

You'll hear from the California ISO this afternoon and they will give you some more detail on what they're thinking about. But my sense is that we will initiate a stakeholder process very soon.

We're going to try to come up with a set of stricter requirements for folks once they're in the interconnection queue. Then we're going to hold them to it. And higher deposits are probably one of the elements that will be in there.

But just keep in mind-- and this goes back to the question that Commissioner Kelly asked a minute ago -- cost allocation is a big potential problem because if -- we've got 40,000 megawatts of renewables in our queue. We've identified specific areas where there needs to be developed. If we build transmission on a queue position by queue position basis it's not systematic; it's not efficient. And the costs get allocated in an unfair manner.

If there are 3000 megawatts of wind generators out there we don't want the one generator who triggers the necessary upgrade with the large costs of the up-front transmission expansion. And we would be hopeful that the process we come up with will allow an even distribution of the costs of interconnection among all of the generation that would benefit from it.

And there is, as there was at the Tehachapi

region, the possibility of up-front funding by the utilities. I believe you'll hear from one of our utilities this afternoon that is something that's being explored.

Certainly our commission has been supportive of utility up-front funding of these large projects to access large quantities of new generation. So that's one of the possible ways to alleviate cost allocation problems.

CHAIRMAN KELLIHER: I certainly agree with the goal of weeding out phantom projects. But I think we have to be careful in that we don't come up with indicia that are facially neutral but will actually tend to favor the utility project rather than the new entrant.

Something like site control appears to be facially neutral. But the utilities have an advantage in terms of site control and wind developers.

MR. CHASET: I take your point, Chairman Kelliher.

But in California most of the generation in our queue is independent generation. And we've been very supportive of the development of lots of new independent generation. We have a resource adequacy program which requires our utility to put out requests for proposal. Most of the responses to those requests for proposal is coming from independent entities.

I think in California, at least, the concern that

it would favor utility-based projects is not likely to happen.

CHAIRMAN KELLIHER: I just want to ask my colleagues about that, too. There's a lot of concern about first come-first served.

There was -- I remember from my school days that there was a certain fairness associated with that. Cutters were not favored very much. But I can see how it may not be perfect in this scenario. But we don't want it to be like Studio 54, too, where someone is chosen on a completely arbitrary basis -- on clothing or appearance -- and how they get to the front of the line, too.

I just wonder -- I can see conceptually different indicia, perhaps. But what are those? I just want to ask my colleague, which would be the Commissioners, if -- what is the alternative to first come-first served?

Is there something that can be concrete and developed? And you're looking at it in New England, really, with an eye toward capacity markets. Are you choosing -- it could be that first come-first served is fine. But if you're chosen in the capacity market then you just on that single basis.

Ron might have been suggesting if you are chosen through some kind of independent resource planning, first come-first served is fine and you jump on that basis. A

modification to first come-first served is what we're looking for and not a complete alternative?

COMMISSIONER GEORGE: Speaking for New England, I think it is probably just a modification.

We don't want to get into a situation where obviously somebody's sitting there and they're meeting their milestones but still not really going to be there when we need them.

In New England in looking at the resources that are potentially going to bid into the capacity market and figuring out is someone going to be sitting there in a higher queue position that could require the automatic disqualification of another resource from even bidding. That's the way the current rules are established right now. If there's an overlapping interconnection impact with regard to two resources, the higher queued pretty much blocks out a lower queued.

We're looking at some other way to decide which one of those projects gets to continue forward, whether it's done through a sub-auction and they compete for that space, whether it's through a bilateral contract where they work out some payment arrangement for the higher queued resources recovering out of pocket expenses, something like that -- but some other mechanism so that you don't have situations where just because someone came into the queue first they're

able to block out a nearby resource.

CHAIRMAN KELLIHER: Let me ask another question, a related question.

If someone isn't making progress should the consequence be that someone can jump them, or do they go to the end of the queue if they're not making progress? What do you think is the right consequence for failing to make progress and meet certain indicia? Is it that someone can jump you or do you go to the back of the line?

MR. CHASET: My sense is that if we're going to do this in the future in chunks we'll have six-month chunks or one-year chunks. The queue closes at the end of a specified period of time and we look at everyone in there. If you fail to meet the criteria for some reason you drop out of that study group. But you can reapply and be in the next chunk.

So my sense is that generators who fall short don't go to the end of the line. They may be at the front of the next line.

CHAIRMAN KELLIHER: Thank you very much.

Colleagues?

Can we go back to Commissioner Kelly?

COMMISSIONER KELLY: I remembered my question. Thank you, Joe. It's a process question.

We're talking about some sort of reforms here to

the queue management process. So the question comes up how would these reforms be implemented. To the extent you've thought about it, I'd like to hear your thinking.

If it's a reform that isn't dealt with in the tariff then it could just be implemented because it wouldn't be contrary to the tariff as long as it's consistent with tariff language. If it's a reform that's a deviation from the tariff then the question is how do you do it. You could come in RTOs or transmission providers could come in for a waiver or could come in for a one-time fix to the tariff under Section 205. Then at the other end of the spectrum is a rulemaking.

My initial thinking is that a rulemaking is probably not where we want to go, at least not initially, for a couple of reasons. One, the one-time fixes or the waivers will be faster. And, two, it seems that we have different kinds of issues in different areas of the country.

Although we may be able to get some sort of overarching concept that would cover it in a rule, it may be easier and more efficient to handle it on a region by region or transmission provider by transmission provider basis.

I was wondering have you thought about this? Do you have an opinion?

COMMISSIONER GEORGE: I would agree with you, Commissioner Kelly, that because of the differences in these

issues in the particular regions I think that dealing with a waiver would be a better approach at least from the New England standpoint because we do have unique issues that other regions don't see. So that seems to be the most appropriate avenue to take.

CHAIRMAN NORRIS: I'd second that. I think rulemaking is not the place to start. A waiver would allow -- MISO I know is focusing on trying to resolve this. Let the individual RTOs and ISOs come up with creative solutions and see where that gets us first.

COMMISSIONER KELLY: Thank you.

MR. CHASET: Your Commission kindly approved a waiver for the Tehachapi cluster. That's working very well.

We expect that there will be a tariff revision that will be filed, hopefully before too long in the New Year. Whether we deal with a backward solution to the tariff revision or waiver hasn't been decided yet. You might want to ask CISO this afternoon. But I would second what everyone else is saying.

COMMISSIONER KELLY: Thanks.

CHAIRMAN BINZ: I'll join that.

I think our concern is that a rule might inadvertently paper over the differences between the regions that a waiver process would be able to handle. And I cited to a waiver of sorts in the Excel Energy. As long as you're

singing an order coming out of this process what you're receptive to, I realize, it's akin to rulemaking. But if you can signal that I think that would be very helpful.

COMMISSIONER KELLY: Thank you.

CHAIRMAN KELLIHER: Colleagues? Jon?

COMMISSIONER WELLINGHOFF: Thank you, Mr. Chairman.

I again want to thank all the panelists. To the extent you have prepared remarks in a format that you could send them to me electronically, I would appreciate that very much. I don't think I've got everybody's, but I would really like to have copies of everybody's remarks. That would be great.

With respect to Chairman Norris's discussion on this issue of discrimination, I have to agree that we can in fact be in a situation of not engaging in undue discrimination but still treat different resources differently by their characteristics. I've said that for a long time. And I would endorse that with respect to this particular process.

Moving this process forward I think we have to consider whether or not, for example, a resource has in fact qualified under a state integrated resource planning process, whether in fact that resource has site control and these other indicia.

I think we also agree that the issue of clustering is one we ought to look at. But certainly, you know, as you said, Chairman Norris, it's not the full solution. We have to look at these other indicia.

I would like to ask some questions of Commissioner George.

I was very interested in the principles you were laying out in respect to how to differentiate between some of these different projects and how they might be treated differently. Were these principles developed by the Connecticut Commission?

COMMISSIONER GEORGE: Yes.

COMMISSIONER WELLINGHOFF: I think one of them you said is allocation based upon efficiency.

COMMISSIONER GEORGE: Yes.

COMMISSIONER WELLINGHOFF: How would you deal with that?

COMMISSIONER GEORGE: If there is a scarce interconnection space and you have two resources, one of which has been in the forward capacity market, neither one of them would be disqualified based on where they are in the queue. They would continue on and they would bid into the forward capacity markets through the descending clock auction they would stay in.

Let's say they got down to the declaring price --

$7. Then if they're both still in at the declaring price they continue in a cell auction where they would actually decide. The clock would still be ticking down and they would decide how much they value that interconnection space. Whoever ends up staying in the longest would determine that that resource is the one that goes forward.

Now the delta between the declaring price and what they are actually willing to be in for, we're still developing how this would all operate. We could take that delta and use those funds to compensate the resources that didn't stay in for any out of pocket expenses.

That way it's a way to get the resources to actually compete against each other for the scarce interconnection space. Instead of trying to figure out, administratively maybe, which one makes the most sense, you actually get them to compete against each other.

There's also been some discussion about getting them provisional qualification before you get to the actual bidding for the auction. Then any resources that are both trying to fill in the same area with the same interconnection spot would in turn see if they have interest in any bilateral agreements to determine if one pays the other to back off.

We're struggling with the mechanisms of how we would allocate those scarce interconnection spaces. But

those are some of the ideas that we're tossing around.

COMMISSIONER WELLINGHOFF: You're in essence talking about economic efficiency. There would be a sub-auction bidding process.

Have you looked at operational efficiency in any way? In other words, there might be some independent 'I want to go to Chairman Binz.'

I have to get used to saying 'Chairman Binz,' Ron. That's a great thing to say.

CHAIRMAN BINZ: Touch , Commissioner Wellinghoff.

COMMISSIONER WELLINGHOFF: I'm going to go to Ron in a minute.

But if you looked at another efficiency measure, which might be operational efficiency where you do load flow studies or other studies that would determine which of the two resources based upon their operating characteristics and maybe characteristics of their generation resource might be better for the system, that might have an effect upon where they would be in the queue.

COMMISSIONER GEORGE: You know, I know -- and ISO New England will be up here later today -- I know part of their analysis that they do during the show of interest for the new resources. They do look at all of the different areas. I'm not sure if they then determine which one is operationally the most efficient resource.

It's a good question. Actually I don't know the answer. But that is something that should be taken into account, I would think, instead of just completing focusing on economic efficiency.

COMMISSIONER WELLINGHOFF: And you would think it might be something that would affect your queue standing if you were more efficient.

Going to you, Ron, and talking about IRP, that's really in essence what IRP is supposed to do. Maybe you can elaborate on that.

CHAIRMAN BINZ: Well, John, as a set-up, I just want to reiterate Colorado just rewrote its resource planning rules. We had, as many states had, migrated over time to what became known as least-cost planning where basically short-term costs or first-in costs and short-term costs were given precedence over any other things which we know call externalities. We rewrote our rules to bring in the externalities that climate change is bringing to the table.

So we now have a process which is more like the IRP, although not as much command and control. There's plenty of room still, I think, for competition within that.

In the event, we're going to come out some time next year for Excel Energy, which is the state's largest electric utility, with an approved resource plan. In my

view -- I used the word earlier -- it's irrational for us then to be hostage in any sense to when these projects got in the queue. Some of these projects will be projects whose technology is changing rapidly. I'll use concentrating solar as the example.

In the two years that our resource planning process will run the technology will evolve significantly for those resources. So their ability to get in a queue two years ahead of the time at which their technology is ripe is probably not something we should expect them to do. It would be our preference to the point that when Colorado issues its resource selection in the IRP that somehow that set of projects as a package be given precedence for the studies that have to be done for transmission.

COMMISSIONER WELLINGHOFF: Thank you, Ron.

Thank you, Mr. Chairman.

CHAIRMAN KELLIHER: I'd like to recognize Commissario Spitzer.

COMMISSIONER SPITZER: There's been quite a bit of discussion and some unanimity on the panel on the first in-first time issues. Certainly the Tehachapi order alluded to by Mr. Chaset stands for the proposition that the interconnection regime for wind sources ought to be different than the combined cycle. And there are certain distinctions. The concept is related. That's the temporal

equity issue.

On the other hand, you have in terms of weeding out of phantom projects what I might describe as a balance sheet issue where you have some projects where you have the developer with a balance sheet able to finance and then some purely dependent upon non-balance sheet financing.

Certainly if you quintuple an application fee to weed out certain projects the burden might fall more on the non-balance sheet projects. That doesn't mean that they're viable. I think some of the language was weeding out non-viable projects.

There seems to me a degree of unfairness with regard to balance sheet versus non-balance sheet projects.

In some of the papers we've seen the discussion -- I heard mentioned what has traditionally been used in the gas area. In the gas area there are certain projects that are financed through balance sheet and off-balance sheet and the open season has a long history of being proved as non-discriminatory under both state and federal law.

So who wants to take the first shot at describing the open season prospect of dealing with means of weeding out the non-viable projects without discriminating based on the financial arrangements for the developer?

MR. CHASET: I'll admit that this is an area that I'm not an expert in.

But let me say that the notion of an open season or something like it will hopefully be incorporated into the California ISO's order 890 transmission planning process so that each year there's going to be projects for new transmission or generators will be able to say, 'Well, we think we need this new kind of new transmission' that we'd put on the table.

I believe on Thursday the CISO board is approving some tariff provisions that will be submitted to you pretty quickly. But there will be something like an open season approach in terms of transmission planning.

Let me emphasize the point that at least for us in California fixing the queue looking at interconnection requests in groups and what's going to be happening under Order 890 systematic transmission planning is also going to be informed by this renewable initiative and will hopefully address the problem that you're concerned about. We'll make sure there is no discrimination because anybody who's really got something they want considered will be able to bring it into the planning process that's going to be open and non-discriminatory and multi-stakeholder.

I hope that begins to answer you.

COMMISSIONER SPITZER: Are you saying that the planning process is an ersatz open season?

MR. CHASET: It's a de facto open season, yes.

CHAIRMAN BINZ: Commissioner Spitzer, I was going to go back to the conversation I was having with Commissioner Kelly earlier about renewable energy zones. That's a type of open season in itself. On a regional basis you get the simultaneous announcement of all the projects in that region that are likely to go forward. It doesn't have the characteristics of having these proved up economics of the projects.

But let's also recognize that even if we had a CREZ type process in Colorado they're still as a group subject to the queuing process. That's another type of accommodation you may want to make, even if you don't go all the way: an open season type approach.

COMMISSIONER SPITZER: The other types of approaches are the economic approaches of increasing this type of project or this milestone process. It would seem to me you could have some serious disagreements in terms of the amounts.

How do you prove you're a viable project, particularly when we hear from the developers that there's a chicken and egg. You know, they want transmission before they write the check to finance but can't get the transmission.

So how -- it's like dealing with any bank: You have to prove you don't need the money.

(Laughter.)

CHAIRMAN BINZ: It occurs to me that we ought to at least look at what the costs of the studies are when setting the down payment.

One of he things you see is that for $10,000 somebody gets in, only to be faced with the fact a couple of years down the road that they owe $100,000 for the studies they've caused to happen. I don't know that anybody's done this, to actually look at what the sort of average median cost of studies is and used that to inform what the holding fee ought to be.

COMMISSIONER SPITZER: What Mr. Chaset was saying was that if it's through a governmental or quasi-governmental process that may be enough of a certainty of receipt of transmission to permit the financial arrangements to be put in place. That's what I'm hearing.

I heard this in my state job and now at the federal level. The uncertainties are what is hampering financing of what I think people would agree to be viable projects, even if they're not balance sheet projects.

What ways can you all in your various jurisdictions ascertain? Do you have a great degree of comfort in ascertaining the milestones if that were to be a change that would be made in terms of weeding out these non-viable projects?

CHAIRMAN NORRIS: Without going into the specifics, weeding out the milestones is one way to alleviate some of the cost considerations for people unable to compete at that level. I think we can get the milestones over.

COMMISSIONER SPITZER: What about the concern that you have a property right here? Certainly if you have a due process issue, are you confident that you can deal with a due process issue without prejudging the question of whether under state law you have a property right?

CHAIRMAN NORRIS: That's the right question. I'm not sure.

I think we have to look at -- give some weight to the short term, sort of what's the longevity of the projects or the short-term projects which tend to be renewables. Do they fare better in our milestone process? Is that fair?

There's a serious public policy question here that we should try and answer to emphasize renewables and low-carbon generation. But I think it's a legitimate public policy answer that we should try to address.

COMMISSIONER SPITZER: Let me be very clear.

I did definitely read very carefully the letter from the governors and the concerns I've heard through the industry and the serious backlog of this issue. The concern is it's very easy to say weed out non-viable projects, just

as a lot of folks and legislators want to get rid of waste, fraud and abuse.

(Laughter.)

COMMISSIONER SPITZER: It's very hard when you actually deal with somebody's specific appropriation getting to that. And I do have the concern. I'm not sure it's a legal matter if it's a federal or state issue.

The question whether a property right arises from the position in the queue and if that position were to be eliminated without any right to be heard what would be the consequences. And then if you do have some due process hearing does that unduly hamper the state process in adjudicating the costs that you all are trying to achieve.

CHAIRMAN KELLIHER: Can I encourage extremely short answers because I think your time has run out, and we want to be fair to Commissioner Moeller.

MR. CHASET: Let me just say it's not clear that there's a property right in a queue position. I think once you've paid your money you have a right to be studied. The question is when you're going to be studied.

If we've got 40,000 megawatts renewable energy projects in the queue and we've got a peak load in the CISO of 50,000 megawatts, not all those generators are going to come on line right away. I don't think there's a serious property right concern so long as once you've paid your

money you get studied at some point in the reasonably foreseeable future.

CHAIRMAN KELLIHER: Very well.

Commissioner Moeller.

COMMISSIONER MOELLER: Specific to that, Mark -- I've been discussing with my advisors -- the key is that the property right is tied to the project. So I mean you can't claim the position in the queue is your right as property. It's only when it's associated with the project you're developing. So it's key, too, in terms of finding that solution.

This afternoon we'll hear from Bonneville, who is trying to put together a cluster approach where the commitment from the developer, as I understand it, is to have that project available at a certain time. The commitment back from Bonneville is that they will have access -- they will have guaranteed access to the Bonneville grid.

But it kind of goes both ways. But it's not a cure-all, again, as I understand, because you could still have a developer back out even though they've made the commitment further down the line. But it has had the effect of getting some of the phantom projects out of the queue up there.

I think we have a long afternoon of good

discussions on that.

John, I'm kind of curious, from your personal perspective on this, knowing a little bit about Iowa, Iowa's been a leader in wind energy both because of its natural resources there but also because of kind of the philosophy that the state has encouraged wind development. Part of it is kind of a small-d democratic that there are a lot of different owners of wind development projects in the state. And obviously the utilities have some interest, too. But they're seen as kind of the big guys as opposed to the smaller types. And it seems like Iowa has a unique challenge to try to kind of balance the interests of small developers and large developers going forward.

I'd like your thoughts on that.

CHAIRMAN NORRIS: We actually like windmills in Iowa.

COMMISSIONER MOELLER: I know.

CHAIRMAN NORRIS: We've spurred small wind development. Those are under 20 megawatts. We're not talking about the small generator in the interconnection queue. It's a different rubric here.

But going forward it is a continued concern of Iowa that smaller operations and independent investors get a chance to enter this market.

I'm not sure I can answer your question very

directly how it's going to fit into this large energy queue. But going forward we just want to make sure that everyone has a chance to invest and compete in this industry. And whatever we can do -- that's why I mentioned milestones may be a better approach than to try to solve it with higher fees. That kind of trade-off I think is important to consider.

COMMISSIONER MOELLER: Potentially that philosophy is a clash against making it harder to get into the queue, whether through financial measures or others.

CHAIRMAN NORRIS: I agree.

COMMISSIONER MOELLER: Good luck to all of us on that, I guess.

Jerry, I'm interested in your conclusion. You mentioned you think that the Midwest ISO stakeholder process is still the most appropriate forum. Do you think it's moving quickly enough, though?

MR. LEIN: Commissioner Moeller, it started in September, really, with our first kick-off meetings. We're talking about tariff filings maybe in late spring here. And I don't think all the problems will be solved with the tariff filings.

But I think it's moving along. They're going about as fast as they really can with giving the stakeholders a chance to see what everybody's thinking and

look and see how it affects them. There's no other Midwest ISO process with the stakeholder process. It works pretty well for pretty much everything so far.

One of the big problems is that everything was way too fast with way too much stuff going on. So it's hard to keep up.

COMMISSIONER MOELLER: I'll be in Carmel tomorrow night so I'm sure I'll be hearing -- I hope I will be hearing a lot about it.

Mr. Chaset, as I mentioned briefly to you, I was at the CPUC a week ago Friday. I was impressed with the level of commitment to new transmission that I heard from four of the five Commissioners. I think the ready process is worth elaborating on a little bit more.

It's more of your going-forward approach was opposed to clearing up the backlog. But again, it seems like a model that maybe other regions will want to embrace depending on where it goes. But it certainly sounded promising.

MR. CHASET: Do you want just a quick thumbnail?

The ready process as currently constituted has three phases. The first one is identifying and ranking the competitive renewable energy zones. Hopefully that's going to be done the summer of this year.

We have a consultant -- I believe a consultant is

on board -- that's going to work to do that.

Phase two is refining that analysis and developing a state-wide conceptual transmission plan to interconnect all these competitive resources. That's going to take another eight months. So hopefully early 2009 that will be done.

Based on that there will be detailed transmission planning for the CREZs that are identified for development. They'll be staged over time.

This is obviously going to have to be coordinated carefully and closely with the CISO's transmission planning efforts under Order 890. Hopefully some of this queue rectification that we're going to be engaging in will accommodate a lot of this. A lot of the folks in the queue are renewables.

I hope that's helpful.

COMMISSIONER MOELLER: That's good.

Thank you, Mr. Chairman.

CHAIRMAN KELLIHER: Thank you.

I realize we're right spot on time. I'd like to ask Staff if there are a couple of questions we should have asked that we didn't ask that would help for you all to ask now.

Ray? Mary?

MR. PALMER: I have one question, Mr. Chairman,

which is:

It would be great to hear from the state representatives while there here, particularly in the states that are involved in multi-state regional transmission organizations, whether they see any differences or any concerns and how to balance the interests of states that do have renewable portfolio standards and those states that don't.

And a more general question in terms of are there any different interests we should be aware of of states that are net producers of renewable energy versus states that are net consumers of renewable energy.

CHAIRMAN NORRIS: I'd just say we've got to be hesitant. It's going to be a transfer from states that have a rich and real resource potential and states that want to have lower carbon emissions. It's important we resolve this, I think, on a regional basis so we get a good flow of renewable energy across state lines irrespective of who's producing it and who's consuming it.

CHAIRMAN BINZ: Ray, as I was explaining to the Chairman in his office before this meeting, Colorado has probably between two and ten times as much renewable capacity as it's going to be able to use in-state. Similarly, Wyoming and similarly New Mexico. We're drooling over the prospects of getting to the Phoenix and LA markets

with some of that power.

So we are starting with how the advantage or disadvantage, depending where you sit, of a regional RTO, we're beginning to work cooperatively to move those states along together on multi-state projects. I think you'll see some of that coming forward from utilities in our area, which will put additional stress on the queue.

COMMISSIONER GEORGE: I would just say the northern New England states are definitely the major producers of the renewable energy and the southern states are the consumers. Although we have individual RPS requirements in five of the six states, we do operate very pro-actively regionally to try to come up with solutions

As this Commission is probably well aware, we've had some disagreements mainly on cost allocation for transmission to move power around. But we do work well. And with our ISO New England planning process the states work well together because, as Chairman Norris indicated, this is a regional issue and has to be dealt with regionally.

MR. LEIN: North Dakota is a net exporting producing state. As I said before, our problem is transmission. That's the fix for us. We have that stability limit between North Dakota and Minnesota and South Dakota. There's a constraint there. The loads are east,

and east is Minnesota, too. So we need more than just getting past that stability constraint.

MR. CHASET: We're a single state ISO, so I'll pass.

(Laughter.)

CHAIRMAN KELLIHER: Great.

I wanted to thank the panelists for helping us today. A very interesting discussion and one that should continue.

Thank you for joining us today.

I'd like to ask panel two to come up.

(Pause.)

COMMISSIONER KELLY: Consistent with our observation that this is a regional issue, we've organized the rest of e panels regionally. Our first panel up is from the Midwest.

I'm pleased to introduce Steve Kozey, vice president and general counsel and secretary of the Midwest ISO, Charles Hendrix, senior engineer, Southwest Power Pool, Dean Gosselin, vice president, FPL Energy, Kris Zadlo -- is Kris here? -- vice president Calpine for transmission, I believe. That's Calpine Corporation. Don Furman, senior vice president, PPM Energy. Rob Gramlich, policy director, American Wind Energy.

Thank you all very much for being here. I think

we'll stick with the same ground rules. Be sure to turn your mike on when you speak and take five minutes and let us know your thoughts.

Steve.

MR. KOZEY: Thank you, Commissioner, and all of you, for making time to do this. Fortunately, you've all been well briefed by the Staff and you've heard the states. Rather than repeat how much it's broken, I'm going to try to focus on the path forward.

I took some pleasure -- a sad pleasure -- in hearing that other parts of the country have problems too because there are days when if seven governors send your boss a letter and the state board process doesn't seem to be moving fast enough, it seems that you may be the only place that's not getting it right.

I do want to say we have a situation where we think we're running the process we've got correctly. The process isn't well designed for this. It's frustrating every consumer segment and regulatory segment, developer segment that we've got. We know that. We do take it seriously. We do plan to file early spring. There's staff behind me that has to do the real work. They'd love it if I said June first. But that's why officers pressure staff.

We do, Commissioner Kelly, imagine the approach of filing tariff sheets with language for you, for the

Commission to adjudicate the justness and reasonableness. We do plan to address in that filing change that would be effective to projects already in the queue as well as forward-looking change.

It's not that nothing has gone on in our footprint. We've got thirteen and a half gigawatts that have been through the queue and have reached interconnection agreement stage. There's about 2000 megawatts of installed wind capacity in the region. So it's not that nothing has happened.

But again a backdrop of our members where there's about just under 130 gigawatts of installed capacity and a peak energy use last summer at about 113 gigawatts, you look at our queue and with 71, almost 72 gigawatts in the queue, that's a remarkable proportion of resources as against real load.

We think that mismatch between what's in the queue in amount and what the load in our region is in amount is one of the things that creates the frustration for everybody.

We're clearly not in the position to pick winners and losers to judge which projects are going to win commercially and which ones have better equipment and which ones are going to ultimately win out. But we do know that not all of these projects will.

We've got some statistics in our brief history that about 30 to 31 percent of the projects in the queue end up reaching the interconnection agreement stage and proceed. It's our speculation that that's in large part due to the lack of demand by load identification up front.

Again, Commissioner Spitzer, I'm not trying to advocate that somebody has to have a power purchase agreement for the long term before they have queue position. We don't want to do that.

But if, for example, on renewable mandates there's a measurable amount of consumption in the region and we have three, six, ten, twenty times the amount of wind in the queue that there's regional demand for, it suggests we have to file something with you to change; otherwise we'll never get to a solution.

So we have group studies. Some of the people involved in the group studies are frustrated with them. They do help get the world forward in a fashion. But if you're in a group study and somebody in your group drops out the Midwest ISO's response is we have to restudy. If you expected a definitive answer to provide commercial certainty to allow your projects to go ahead you'd just be frustrated.

Business people rationally want commercial certainty. They want enough certainty to plan on. Our process is one part of the certainty. State siting is

another. We need to give them better certainty in terms of what we think the solutions are likely to be. I don't want to prejudge our stakeholder process, but it's going to have to come to conclusion early winter for us to draft tariff sheets to make the spring filing.

I think I finished first out to address the process of what does it mean if somebody can buy turbines faster, can secure sites better, and then also to link this planning notion to get demand and generators in touch. A regionally identified project or path is in one state, so we're not going to be in the position of picking, say, North Dakota -- even though Jerry had those very kind comments as to the winning state.

And I just ran out of time.

COMMISSIONER KELLY: Thanks.

Charles.

MR. HENDRIX: I appreciate the opportunity to participate in today's technical conference to share with you SPP's perspective with regard to our generation queue. Our experience certainly bears out the Commission's observation that stress has been placed on the queue management approach due to unprecedented demand, principally in the area of generation from 2003 through 2005.

We received approximately 24 new interconnection requests each year. Last year we received 49 requests. So

far in 2007 we've received 53 new requests. Currently we've got 76 active requests in our queue. Of these, 67 are for wind projects and a total of about 15,000 megawatts.

When you add in the wind farms that already have an interconnection agreement signed, that jumps to 19,000 megawatts, compared to last year. We had 27 requests for about 4300.

Our peak load in our footprint is approximately 43,500 megawatts. The wind with IAs and other study amounts to over 40 percent of our peak load. The current projections by the Department of Energy on wind development in SPP suggests that two to three times can be in our queue in the next two years.

This development has significantly increased work load on our staff. We've hired additional staff and our consultants. But it doesn't appear the way it's going that throwing manpower at it is going to solve this problem.

We believe there's a few areas of concern.

One of the issues is the load cost and lack of commitment necessary to file interconnection requests. And as a result many requests seems like the state would enter the queue and they executed an interconnection agreement and are later suspended, which complicates our study process.

We have a large portion of the interconnection request that we receive that doesn't have a buyer for the

energy. A load-serving entity will go out for an RFP and then we'll see a significant increase in queue requests responding to that one RFP. We've had instances where a customer will make requests without knowing which machine they're using, and we wind up having to restudy that particular request two or three times when they change what turbine they're using.

There's an option of rescinding a project, as they call it, for three years. SPP currently has approximately 1900 megawatts of IA on suspension. All of those are wind projects. This makes the studies extremely hard to complete as the models used for the study become unrealistic.

Another concern is the distinction we have been interconnection and delivery. In SPP's process the only network upgrades we assign are for short-circuit instability. This can result in some minimum network upgrades assigned to a project and encourages developers to sign on on suspension.

There have been some discussions about clustering. We still feel that clustering would trigger the interconnection upgrades that are necessary to interconnect the generation. But we fear that the cost allocation provisions would probably trigger restudies that we so far haven't seen due to our low withdrawal rate. It's also

unclear how a project that would be cost allocated at network upgrade in a cluster setting could fulfill that if they go on suspension.

We do have experience in clustering the transmission service studies referred to as the aggregate study. Our experience with the aggregate study has been mixed in that we have sold 3600 megawatts of service. But we are seeing multiple restudies due to the problems we've been having with the study.

We do believe there's a few changes that can be looked at. First, the refined application requirements, the customer commitment to be considered, the application could be increased and make it applicable to construction costs. The application could contain indications of a viable project. If they don't have these indications then they could stay on the present process, but the ones that could could be on a fast track.

Second, the option to suspend the IA at no cost should be revisited. A shorter time frame and a possible charge should be considered. SPP would request guidance be given to a cost allocation of projects that are also scheduled.

Third, if clustering is required I believe it should probably be in conjunction with the changes mentioned above for better commitment.

Thank you for your attention.

COMMISSIONER KELLY: Thank you, Charles.

Dean.

MR. GOSSELIN: Thank you for this opportunity. My name is Dean Gosselin, Vice President of FPL Energy and Development.

FPL is the largest owner-operator of wind energy in the United States today. We own roughly one-third of the generating capacity, with nearly 5000 megawatts in ownership and operation today.

Also earlier this year we announced plans to install an addition 8- to 10,000 megawatts by the end of 2012.

As we look at this we say the broad scope of this conference reflects the critical role interconnection plays in bringing more renewable generation onto the grid. The realization that current interconnection policies are inhibiting wind development and the urgent need to address the growing needs of the states and the challenges they face in meeting their renewable portfolio standards, interconnection policies in the Midwest have failed to timely integrate wind resources because the process lacks the efficiency, transparency and predictability that was contemplated in the FERC Order 2003. Urgent reform is needed as the volume of wind interconnection requests has

soared in recent months to meet the public's growing need for these renewable resources.

While our views are more fully expressed in a white paper we submitted in advance of this conference, we do believe there are a number of practical near-term solutions to this interconnection challenge. And that's what we'll focus on today.

We also believe that many other generation types beside wind can have the same principles applied. But we do recognize there are differences, both regionally and in technology.

Lengthy interconnection study procedures present one of the most immediate regulatory barriers to wind development. The completion of these studies, which examines the technical feasibility of wind integration and its effect on neighboring transmission systems and the need for corresponding upgrades have taken far longer to produce than provided for in the Midwest ISO's tariff, underscoring the urgent need for reform. As a result, thousands of megawatts of wind generation are not being interconnected as they're stuck in various group studies established by the Midwest ISO.

We believe that the interconnection process can be greatly improved by expanding the use of third parties to perform out of sequence system impact studies to enable

energy resources to be interconnected without getting stuck in a group study and making feasibility studies optional and requiring the Midwest ISO to provide sufficient information to enable its customers to assess feasibility on their own.

The Midwest ISO queue is not clogged with projects that will never be built because its tariff does not have appropriate mechanisms for distinguishing between viable projects and unrealistic applications. All that's required to get in and remain in is a $10,000 deposit.

We believe the queue can be dramatically improved by taking immediate measures to ensure that only viable projects remain in the queue: The posting of additional security during the study process that would be refundable upon demonstration of full site control or the dropping out of the queue; an LGIA execution making the security requirement non-refundable, full site control has not been demonstrated, and requiring a demonstration that wind turbine equipment has been procured, and shortening the suspension period of an executed wind interconnection agreement to one year.

The current interconnection service for wind falls into two categories: energy resources and network resource interconnection services. Both require interconnection studies and network upgrades that assume wind output at full output during all hours of the year. By

allowing more wind interconnection customers to take service under an alternative product in which there is a provision for service of conditional energy resource interconnection service, we believe interconnection policies can better recognize the unique characteristics of wind energy.

By requiring operating procedures for such resources that could require their disconnection from the grid during certain critical system conditions the expansion of the service would ensure safe and reliable interconnections for wind generation.

In FERC Order 890 FERC made its provisions in the transmission provider's tariff mandatory and enforceable subject to civil penalties of up to a million dollars a day, including transmission service study requests. FERC did not expand those interconnection procedures. FERC should do so now.

The specific penalties and RTOs that fail to meet study deadlines should be deferred until near term queue reforms have been implemented and non-viable interconnection requests have been eliminated from the queue.

Lastly, unlike other generation requests that are schedulable, wind is variable and generally an off-peak resource. FERC should request that the Midwest ISO modify the modeling assumptions to better reflect the wind characteristics during peak periods as others have already

done so.

COMMISSIONER KELLY: Thank you, Dean.

Kris.

MR. ZADLO: Good morning.

I hate to say it, but a lot of this conference for me seems to be a rerun of the conference that happened about four years ago. Whereas Order 2003 went a long way of standardizing procedures and expectations, a lot of the underlying problems still exist today.

Let me start off by saying that any changes or improvements should apply to all generators. Four years ago the queues were filled with gas generators; today it's renewables. Three or four years from now it's going to be another generation technology.

The grid doesn't discriminate between megawatts. It doesn't matter if it's nuke, coal, wind, gas. It all impacts the grid.

Our country's energy needs cannot be fulfilled by any single generation technology. Again, for all those reasons, any changes should apply to all generators.

Now there's three things that we can do to improve the queue. Transmission providers need to increase their resources to help with processing. Transmission providers need to streamline their internal approval processes, and they need to be held accountable. Let me

illustrate this with a real life example.

The example I'm going to provide you is before the glut of wind in the interconnects that just happened in the last several years. We submitted a request. We waited 15 months to get a scoping meeting. In that scoping meeting the first thing that was told to us is it's going to take three weeks to get a schedule. Three months down the road when we're supposed to get a study we're told that an error was uncovered in the base case and the study needs to be redone.

The long and short of it, it took six months to get a study.

Some additional background information. There are three transmission providers and the ISO involved. There was no restudy performed for a higher queue position dropping off this was just a controlled straight line study And the transmission provider wasn't waiting for any information from us.

So what went wrong? Why did it take so long? Lack of resources.

The transmission engineers assigned to the project are overtaxed. They have a multitude of responsibilities that prevented them from focusing on the analysis. They have to do base case development, expansion plans. They have to participate in NERC committees. It was

just very difficult for them to focus on the analysis.

And there's a question of who's in charge. It was very difficult for the ISO to schedule meetings with the transmission provider. It's akin to herding cats. But more importantly, it was very difficult to get everyone to approve the analysis.

There's a lot of internal approvals that happen at these utilities. The study itself, computing time takes about a couple of hours. A good transmission engineer could crank out a study in a week. But the transmission planner has to get approval from his manager. His manager has to get executive approval. He has to run it by legal, regulatory, substation, real estate. So there's a lot of other things happening behind the scenes that are delaying the process.

Finally, accountability. The penalties are asymmetric. If I miss a milestone I'm out of the queue. If a transmission provider misses a milestone there's no repercussions. Even worse in our scenario where there was an error I had to pay for two studies. That's happened to me multiple times. This isn't a single error; it's happened to me multiple times.

In short, transmission providers need to increase their resources, streamline their internal processes, and be held accountable. These are fundamental issues that need to

be addressed before we move forward with any other approaches because those approaches are going to fail as well.

Since I've got a minute here I'll go off script here and I'll mention two things about clustering.

My comment with resources applies to clustering as well. We submitted two requests at the same time to PJM East and PJM West. PJM East, we got our study back in time per the tariff. All the deadlines were met. PJM West, the comment I got back from PJM was, well, the transmission provider is so backlogged we can't give you an estimate of when you're going to get a request.

So clustering by itself is helpful; it's existed from day one. When we're on the LGIP process it should have been implemented long ago by some of these transmission providers. But by itself it's not going to be the cure-all.

And phantom projects, one out of four projects will reach development. And that's just because developers have to balance a lot of other issues outside of transmission.

And I'm over my time. Thank you.

COMMISSIONER KELLY: Thank you, Kris.

Don.

MR. FURMAN: Thank you, Commissioner Kelly. I'm here on behalf of PPM Energy. We are the second largest

wind developer in the United States but we're the biggest in the world.

(Laughter.)

MR. FURMAN: Ybadrol is a Spanish company that acquired Scottish Power, which was our owner. And at the end of the day we have the most operating wind ownership in the world.

We're developing across the country. We're in every region of the country. We're on both sides of this issue. We're in the queue high up and we're in the queue down low. We tried to figure out which side we wanted to be on, and it's hard.

What my comments are going to reflect is our best attempt to shoot down the middle and provide good public policy guidance.

There are two general ideas that I want to throw out. One is I would implore the Commission -- by the way, I think it is great that you are having this today and it's great that you guys are all here listening to this because this is an important issue to us. But please don't throw the baby out with the bath water.

LGIP has done a lot to make independent power -- allow it to continue to be viable. And independent power today is under a great amount of stress. Many utilities across the country -- most, probably the vast majority --

are being very vocal and very aggressive in their desire to self-build. It's a difficult time to be an independent. This is one of the protections that the independent industry has against the exercise of vertical market power. It is in large part working. It is not working very well in the Midwest because it's being overwhelmed.

As Commissioner Moeller referred to earlier -- and some others have -- we've seen this before in the gas-fired era of five years ago when Palo Verde I think had 30,000 megawatts of interconnection requests and no place to go. So we will work through this.

I do think it's important for us to have -- It is important for the commission, I should say, to take action to tweak and to modify and to make some changes in the policy that will improve it. But it is a critical -- and I think even the utilities would tell you it has been a much nicer way to do business when there is clear policy guidance and a process to follow. It is objective and not subjective.

Part of that same issue is I would caution the Commission not to get involved in the development process, not to open this process up to inquiries into whether you have committed turbines to a specific site, for example. Site control is a slippery slope. We would much prefer to see the kind of measures put in that I think everybody has

said would be effective, which is let's raise the stakes; let's create more of a financial commitment and let the developer decide, you know, okay, it's now or never; I've got to make the decision and I've got something at stake; I have some skin in the game.

The second broad point I want to make is a point I try to make whenever I speak in public -- even at birthday parties and bar mitzvahs, which is we need more transmission.

(Laughter.)

MR. FURMAN: If you think about this, this queuing problem will be much less of a problem if we weren't so constrained. We wouldn't have to be doing all these studies. And I won't belabor that point. But I think it's a very important point that we need to keep in mind.

Specific positions that we would advocate is, one, let's not do away with first come-first served. It is objective, it is clear. And I'm not opposed to putting other criteria in place. But it is one of those fundamental protections to the independent developer. And it is not subjective.

Second, I completely agree we need to add resources. The ISOs, the transmission owners who are not on ISOs need more transmission engineers, need to be encouraged to hire more transmission engineers. This is not a blip.

There is broad public support for a lot more renewables in the portfolio. We need a lot more megawatts on the ground. And it's not going to go away.

Third, clustering I think is a good response but it's got to be done right. You can't create a big geographic area and throw all the generation in a massive area and expect the transmission engineer to make sense of that any time soon. There needs to be a rule of reason that says let's carve out projects that are electrically interrelated. Let's do it in a geographic area that's discrete and be reasonable about it.

Financial commitments I've already mentioned. I think they are important.

And probably the most important element of this, and lastly -- I haven't heard anybody else mentioned this -- but when there are reliability benefits created by some of the upgrades that are required those costs ought to be allocated to the system as socialized. They shouldn't be put on the backs of the developers. Frequently we'll see in a study where that happens.

I'm over my time so I'll stop there.

COMMISSIONER KELLY: Thank you Don.

Rob.

MR. GRAMLICH: That's all right, Don, because as my transmission committee chairman board member, it's all

your time if you want it.

(Laughter.)

MR. GRAMLICH: Rob Gramlich, policy director, American Wind Energy Association.

We very much appreciate the Commission holding this conference and this participation of the RTOs and ISOs and various stakeholders here. It's a particular privilege for me to be in a comfortable chair instead of where I'm used to being, on the seats back there where I never had the posture good enough to sit.

In particular, having Dean Bosselin here, who is also a board member of NWEA -- and Sean Finnerty will speak later. I also want to recognize there's a group from California. Joshua Bar-Lev will speak. His remarks include a lot of input from wind developers in California. So we don't have wind on that panel. I'll try to speak a little more nationally than just Midwest on this. But those remarks are very consistent with some I think you're hearing from the wind side up here.

You've heard by now that the interconnection process is broken. AWEA has been saying that. We said it in the Commission's ANOPR process for competition in ISOs and RTOs.

We want to be clear when we say that, as we were in those comments, that we don't want to give any impression

that this is a problem with the design of RTOs and ISOs. As AWEA frequently says, you can integrate a whole lot more wind energy into ISO and RTO market structures than you can in the balkanized market structures outside of these areas. And this should be an important national policy agenda item if the nation is serious about climate change and renewable energy.

Also, as Don just said, we want to be clear that Order 2003 in standardizing generator interconnection really moved the ball forward. We don't want to in this process do anything that turns back to the clock to the good old days of discrimination. We want to make sure it's a level playing field in the process.

I want to complement what Dean and Don have said, and also what I think Sean and Joshua are going to say, and focus on one particular area that deserves a lot of attention in this process. And that is the assignment of transmission costs and participant funding.

Participant funding is the root of much evil in this process. It's a crazy process if you think about planning a shared regional network on the basis of the next individual project in a generator queue. It would be like planning a highway expansion and putting all the costs on the first car to come up the entrance ramp. It just doesn't work.

It didn't work very well for gas generation. It may have worked somewhat okay for PJM based on their robust grid. And that was a model for some of the regions.

But in areas where there are more transmission needs and now that you have much of the generation being wind, which is relatively small and generally more remote from load, it's a totally broken process.

So it's our hope -- first of all, we know FERC is not going to be able to wave its pen and undo this politically -- maybe legally but not politically. So this is an outreach issue for states. We think a lot of utilities in the states need to recognize that this is a fundamental issue that needs to be addressed.

I move now to solutions. I appreciate the focus on solutions. I think it's helpful to envision success in this area. You can look at Texas, where two-thirds of current wind generation is being interconnected today very successfully. The interconnection process is smooth there.

Outside of the RTOs and ISOs there is the accrediting policy where generators don't pay the network upgrade costs ultimately. And that is working better.

Somewhat ironically, the ISOs and RTOs based on their superior market structure were given the opportunity to use participant funding. Some of them have various ratios apply and that has been again the source of the

problem.

I want to just briefly list -- well, I also mentioned it's not that hard to change. Recently ATC in Wisconsin and ITC in Michigan used their prerogative to file an alternative approach even within the MISO footprint. And things are working there. So it's not that hard to do.

I want to just list briefly some of the solutions that are being discussed that I think makes some sense. The geographically-based clusters make some sense. They have to be well done. There are pitfalls with that approach, as others have said. Dean mentioned this conditional energy-only interconnection service. That's a very promising idea. You know, the FPL comments are very interesting. Short-term solutions to the particular MISO footprint, those should be considered.

And I'm out of time. But I think generally a number of the ideas I've heard today are consistent with what wind industry members are open to and willing to talk about in these regional processes.

Again, the one caution there is when things start to get into issues that look like discrimination. But otherwise I think there's a lot of incremental improvements that are appropriately on the table.

Thank you.

COMMISSIONER KELLY: Thank you, Rob. I

appreciate all of your contributions here.

And I'm going to open the questioning to my colleagues.

COMMISSIONER SPITZER: Madam Chairman.

Let's talk about the open season proposal. I posed that question to the prior panel and there wasn't very much response.

Do you have a Midwestern perspective or can you more generally respond using the natural gas pipeline model that has been pretty successful in separating the wheat from the chaff without discrimination. How can that be applied here?

MR. KOZEY: Commissioner, I'll take the first start.

Again, our stakeholders together are trying to balance the strengths and what you get from this process and be mindful of what you sacrifice. In my own view it will have the advantage if we can get states that have renewable goals, targets, mandates, and certainly if Congress were to move ahead on RPS it would include all our states as opposed to just now some.

We'll admit that we have a certain minimal infrastructure build-out that has to be accomplished. This minimal build-out is more than several hundreds of miles of at least 345 kV infrastructure.

If load that will have requirements or use 'x' percent of its generation from renewables can hold place for a while the cost of construction so that then the eventually wind projects and others can take a fair share -- Mr. Gramlich and I may differ what the fair share is -- but a fair share on that, we can get I think certainty for policy-makers that their goals in their states can be met with consumption targets. We'll have infrastructure to support the delivery of renewables to them.

So I'm hopeful that's where it will come out and that will be an element of what we file, I expect, with you in the late spring.

COMMISSIONER SPITZER: In what respect -- this may be more for the developers -- and remember, Don, I'll have you at my kid's bar mitzvah.

(Laughter.)

COMMISSIONER SPITZER: How would the participation in an open season, which is a contract situation, how could that be affected in your case? The same idea, just a contract with the ISO?

MR. FURMAN: Commissioner, I think for one thing in the subsequent panel Bonneville Power Administration will be up. We have been working closely with them on their open season proposal.

My take on open season -- and I've been on the

gas side as well -- it works well on the gas side for two reasons which don't exist here: You have clear federal regulation and one regulator. And I think Steven made some reference to the fact that you have to keep states happy in this, too.

Secondly, we're talking about power here. We're not talking about pipelines where you can put something in one end and make it come out the other. You do have the planning issue and the fact that electrons go where they want to go.

Having said all that, there are definitely in my view going to be situations -- and I think Bonneville is a situation where this can work. You know, I would suggest that there are people better than me who can sort of walk through what they're proposing and what are some of the issues there. But I think it's viable.

COMMISSIONER SPITZER: Dean.

MR. GOSSELIN: Thank you, Commissioner.

When I think about open season I think about a longer-term solution versus short-term and near-term use. The great congestion right now, we need to clear the queue up and allow it to go forward. But I also think there are various proposals that can work. An open season could work as well longer-term.

But Don's point, we think of wind as an energy

resource. As such it's not a capacity resource. So the firmness should be able to be selected by the developer.

If they want network resource treatment they should be able to ask for it and pay for it. If they want truly energy resource, which means when the grid's available we can use it, then use it; when the grid's not available or its reliability has been compromised, get off or reduce your output or constrain yourself.

We should have that -- wind should have that ability to choose. Right now it does not. The open season doesn't take care of that piece of it.

COMMISSIONER SPITZER: Why don't you tell me a little bit more about the conditional energy interconnection service.

MR. GOSSELIN: The thought is pretty straightforward. Back to wind being an energy resource, by its very nature not being a capacity resource, it should not require firm interconnection service. And that's what it gets: firm service. The planning process says all of the wind on the grid is going to be there when the system is at its weakest point or at peak. That's not true. That's not what happens with it.

We should rationalize those inputs, but also rationalize that wind again can be removed from the system. It's not there; it's not contributing to the firmness, to

the fact that the lights are on. So take it off when it's compromising the system. That's the conditions.

Describe the conditions and then back to that finance-ability or that market test, if you will. Describe the conditions so that the wind developers, the wind owners can value it. Is it ten percent of the time? Is it 100 percent of the time?

You know, in a way LMP markets send you signals. Locational marginal pricing markets send you signals. What we're looking for is similar signals from the interconnection process: When do we expect to compromise system reliability and, when that happens, get off the system. Create operating guidelines that say don't compromise the system.

COMMISSIONER SPITZER: Steve, from your perspective these are climatological as opposed to economic. What are the challenges that incorporate that from your perspective?

MR. KOZEY: If it were one project they're finite challenges.

The engineers tell me, you know, fiber optic communications, a developer with significant enough investment and technology themselves could be able to literally upon a signal disconnect from the grid. If it's hundreds of them I don't think that our engineers are

confident we can come up with a set of operating protocols stacked on one another without entering some of the same discussions about is it first in-first out, you know, and who has what rights there. It's not a closed door.

We and FPL Energy are in concert with one another. They're part of our stakeholder process. But again, if it were one project, yes. If it's a hundred projects, I don't think so, that we can say yes yet.

COMMISSIONER KELLY: Thank you, Mark.

John.

COMMISSIONER WELLINGHOFF: Thank you, Commissioner Kelly.

Let's start off with Dr. Zadlo's second point. And then I'll address to Mr. Hendrix Mr. Kozey related to streamlining the process.

Where are the roadblocks? What is taking the time? I need to understand the process better. What's the first thing we can hit, you know, first to reduce the time to get these studies done?

Mr. Kozey.

MR. KOZEY: On the resource side I think this process already has required management of everybody who's doing these studies to address the resources they have, the questions you've got. If when we bring forward solutions we shorten some time frames that will crimp some projects'

flexibility as part of also holding the steadier two time frames, Commissioner, that are in the tariff I think that's fair.

Getting base model assumptions to have credibility in your transmission provider community has been something that has dragged us so far. I believe we're much closer to that. Part of that means in our system every transmission owner has to be comfortable through a transparent process.

Everything we say about the base case is reasonable so that the frustration that Kris talked about doesn't happen when one guy says we didn't update our assumption list to you last quarter like we were supposed to and we're sorry but now here's the update.

By other rules on file with the commission we're required to use system ratings provided to us by the TPs. That's one area.

COMMISSIONER WELLINGHOFF: Let me stop you for a second.

Keeping the base case updated is a problem is what you're saying. That seems sort of fundamental, that we've got a base case and any developer walks in off the street and you say, okay, we've got the base case to start with: Here it is. That has to be something we need to figure out how to get the resources to do and get everybody

together and get that done.

MR. KOZEY: Yes, sir. It should be further advanced than it is and we're committed to get it further advanced.

It's just that in a real world problem when you get it set and you have, say, a 1200 megawatt coal plant whose folks have got authority to build the plant in the state where it's going to be located, a state that is going to certificate a transmission line for it is not sure it will or not, that plant is in our base case. When regulatory developments happen in the plant -- maybe changes its size, scope, year of in-service -- that's going to change, too, what we have to do.

We have your problem. We're conscious of your problem. We're trying to make all the transmission requirements.

COMMISSIONER WELLINGHOFF: Let me understand. That plant's in the base case. But that plant is also in the queue, right?

MR. KOZEY: Yes. But it's not able to get on unless --

COMMISSIONER WELLINGHOFF: How do you determine somebody else's plant is not in the base case. I'm confused as to what is in the base case.

MR. KOZEY: We are putting things that have

reached the generator interconnection agreement stage.

COMMISSIONER WELLINGHOFF: They've got an agreement? Okay. I'm sorry. So they're not in the study queue.

MR. KOZEY: Right. They've made it all the way to interconnection.

COMMISSIONER WELLINGHOFF: All right.

But just because it's got an interconnection agreement doesn't necessarily mean that you say somebody is going to approve the transmission line to actually have that project built.

MR. KOZEY: Correct.

In terms of importance within the company we have annual incentive goals that are set every year -- not just for the officers but for all employees -- and strategic initiatives making a filing with this Commission is good enough for you to accept it. It's something that when our board adopts it, as I expect they may here either this month or next month, it will be part of what affects all incentive compensation for all employees at the Midwest ISO. That should remind every manager that when he or she needs resources that it's prudent to bring it up through the change of command as to wherever there's a crimp so that we can get this going.

COMMISSIONER WELLINGHOFF: Let me again talk

about the process of streamlining it. Specifically beyond this issue of getting the base case straight what other things are slowing this process down as to how it operates?

Mr. Zadlo indicated the computer run takes a couple of hours. Is that correct?

MR. KOZEY: Yes, sir, for a non-group study, a simple project interconnection.

The group studies, unless better shaped, as they've described, to electrically related folks in a finite geographic area take longer. They take longer whether we do them, whether Siemens does it for us as a contractor, or whomever can do them, especially in the part of our footprint, where Jerry Lein from North Dakota reminded you all that there are stability problems: that the major resources that can be committed to allow the safe an reliable continued operation of the grid are themselves a factor.

The other kinds of elements that we think can improve this process about studies is to shrink times again for durations, but also to request more from the folks in the development queue, more physical data. You've heard from Charles what if a developer says when you have a wind item it's only this many megawatts -- it's 80 megawatts but I'm changing technology. So more data, firmer data.

We can push that. that's an improvement in one

way. But it's a crimp on the flexibility afforded somebody who's going to interconnect.

COMMISSIONER WELLINGHOFF: Mr. Hendrix, do you have any comments on the question?

MR. HENDRIX: We have similar problems in getting the studies finished, not so much in doing a general base case.

But we put thousands of megawatts that are prior queued in the model. The projects that have an interconnection agreement are in the model. The projections that have an interconnection agreement on suspension are in the model. None of them have deliverability associated with them. And so you have a completely saturated power flow model. You know, we don't know where to send the energy to.

We synch it within the footprint or synch it outside. SPP, the hole is going to be in the supporting region. We take it outside of SPP. Cost allocation, you know, and transmission are areas outside of SPP. But those are just issues that just make the studies difficult and it does slow the process down.

COMMISSIONER WELLINGHOFF: Mr. Zadlo, do you have any comment on those answers?

MR. ZADLO: Yes.

Commissioner, you highlighted a point of frustration of mine that I've had. I find it ironic that

ISOs have base cases in topology models that they use to run the system that they use for their expansion plans. But when it comes to interconnection they have to recreate the world. I think that could go a long way -- if you had an off-the-shelf case it would improve the processing and the turn-around of these studies.

COMMISSIONER WELLINGHOFF: That makes a lot of sense.

The next question I've got for Mr. Furman, I guess, Mr. Furman, Mr. Gramlich and Mr. Gosselin are all the ponytail guys we've got here today working on the wind stuff.

(Laughter.)

COMMISSIONER WELLINGHOFF: Mr. Furman, I was interested in your comment that you didn't want, number one, to change the first in-first out system, and that if there were any criteria you wanted to put on to people getting in the queue it would be primarily financial commitment criteria.

Could you talk about that in relationship to also your concern about ensuring that we maintain a discriminatory process that allows for independent power producers to compete equally with vertically integrated entities, because I would think the vertically integrated entities would have more ability to provide this financial

commitment than a lot of independents because they're obviously responsible to their rate-payers or shareholders and you're going to be taking out of your pockets.

MR. FURMAN: To answer the last point first, the financial commitment is, well, let's face it, this is not a ponytail business any more. Big companies with big boy pants and balance sheets. So I don't think there's much of a disparity any more, certainly for the vast majority of the projects that are in development. There are still small developers out there that are a critical part of the business. We may want to think about that a little bit.

But the other thing is this is a threshold issue. I think the proposal here is you still have the first in-first out rule. But you have a threshold where you have to write a pretty big check. And there may even be a little bit of pain associated with it.

COMMISSIONER WELLINGHOFF: Should the check be commensurate to the size of the project?

MR. FURMAN: Maybe. I don't have a hard and fast proposal on that. But it ought to be more than what it is today.

What that does is -- the other thing that I have observed, even when I was on the other side, on the utility side, is there are developers and then there are developers and then there are projects and then there are projects.

There's a lot of people who can make a lot of noise about a project that is never going to get built. I've seen that many, many times. So that financial commitment really creates I guess the sieve through which you filter people.

The other answer -- the other response or elaboration I would give on the concern is the more subjective you make the criteria the more -- this is particularly true with vertically integrated as opposed to ISOs -- the more subjective you make the criteria the more you put it into the hands and create the temptation to exercise vertical market power. And that's the issue.

If you're in a situation where a vertically integrated entity who's selling transmission service can pick and choose in the queue who they want, they're going to pick their own projects or they're going to pick somebody who's going to sell them their project as opposed -- that may not be the best thing for consumers. I guess that was my point.

COMMISSIONER WELLINGHOFF: Just to follow up on that, what about the suggestion on the last panel that someone who qualified in an IRP process might have some priority in the queue.

MR. FURMAN: I thin that's going to create issues because -- I'll pretend I still work for a multi-state utility. That would put me in an awful position because I'd

have one state saying this is in the IRP, another state saying this is not; how do I apply that? I mean I think that's a difficult way to go about it.

You introduce legitimate state interests in planning. But you introduce that into what is clearly the federal scope, I think, meaning the interconnection process.

COMMISSIONER KELLY: Commissioner Moeller.

COMMISSIONER MOELLER: Thank you, Commissioner Kelly.

First to Mr. Kozey. I think the answer to this question has to do with Congressional action.

We can do all we want here. But we don't operate in a vacuum. Congress can change the law on production tax credits or let it expire, and it affects the marketplace.

But where did the queue interconnection problem really bog down in the last few years? I mean I've seen the stats in the last few months. But what really happened to crease this huge backlog, in your perspective?

MR. KOZEY: Commissioner, there's something going on between the end of 2006 and calendar year 2007. The developers know better than I do the availability of tax credits and the terms under which they are earned or likely to happen.

But to increase that much in a year, it made us lose all the ground we had gained in queue reform and

efficiency in the process.

COMMISSIONER MOELLER: Any other perspectives on that?

MR. GOSSELIN: I might add successful wind projects really are a convergence of several large issues. One is market structure. Is there appropriate market structure? MISO clearly has. Is the wind resource there? MISO is a wind-rich resource. Lastly, grid access. That's what we're here to talk about.

When you have those elements, which are almost unique in the U.S. -- okay? -- you have the convergence of the economics with the wind resource, with the desire to have it, you get this confluence of desire. And this desire is what I believe is coming out.

Wind is a big business. There's a lot of potential in the MISO footprint in the wind-rich states in the middle of this country. And it will continue to be so. It won't just be a MISO issue. There's just a big focus on it now.

COMMISSIONER MOELLER: But the prospect of expiring production tax credits that arguably are pretty generous certainly has some impact.

MR. GOSSELIN: I would argue no, other than the near-term desire to put investment in the ground and the near-term shows that a MISO footprint and those wind-rich

states have nearly all the elements to do so. That's the real key to it.

COMMISSIONER MOELLER: Fair enough.

Again back to Mr. Kozey -- but I want to open this up to other folks -- you mentioned you didn't want to be in the position of picking winners, maybe picking technology. But is it appropriate maybe for only the higher class of turbines -- I think it's class three and class four -- the ones that can better accommodate different wind speeds, better accommodate a shut-off, either if the winds blow too high or have real reliability advantages over an earlier technology, why isn't it appropriate for that to be a consideration in terms of a project development?

MR. KOZEY: It will be a consideration for the economics of the project. It will also be a consideration as to how that project relates to our reliability criteria.

When I said I didn't want to pick, I don't want to through our stakeholder process have a technology ranking and bring that to you. But having said that, if our group stays with first finished-first out as a way to jump ahead in the queue better developed technology, more available technology in the hands of somebody who's acquired it -- whether they're small or large -- should be able to place them more to the forefront.

Also, even though at the moment we and FPL Energy

are not of one mind on the energy-only conditional kind of resource, if technology changes and advances of those kinds of things can be shown to us to be really operable without complicated operating guides and too much communication, then maybe that technological leap gets us to another product that we don't have today that it would be appropriate to offer.

COMMISSIONER MOELLER: Other thoughts?

Kris?

MR. ZADLO: I'd like to highlight a few things. I think we're on a slippery slope here.

When we develop projects probably one out of four development projects go forward. That's the nature of the beast. So when I hear comments of phantom interconnect requests it makes me cringe because as a developer you're managing a lot of issues. You have to manage zoning, gas interconnect, fuel interconnect, try to get local approval for your project. There's a lot of things that can go wrong.

And going to Commissioner Spitzer's for there be an open season, I can think of a lot of places on the grid where there is available transmission capacity where generation will never be built and interconnected to it because the local entities will not allow you to do it.

I am concerned that we're putting -- the tail is

wagging the dog here. The reason why transmission was created in the first place was to deliver an efficient central generating facility's power to load. That's why transmission was built in the first place. And now we've kind of turned it all around. And it's okay, we're going to build generators where there's transmission.

We're talking about multi-million, half a billion dollar generating projects here. So I think we need to keep that all in mind here when we take this into consideration.

COMMISSIONER MOELLER: Fair enough.

Mr. Hendrix, I'll be in Kansas on Friday at the Kansas transmission summit. I was there last year. I heard a fair number of complaints about the queue kind of developing at the time. You in your testimony have given us three suggestions on ways the queue process can be improved.

Because I know I'll hear more complaints on Friday, can you elaborate on many a timetable where you're inspired to deal with the SPC's three suggestions?

MR. HENDRIX: We really haven't discussed a timetable when we'd need to get together stakeholder groups and bring this to the forefront.

Right now the concern among our transmission-owning members, it's kind of heavily weighted in the western end of our system. Some of the others haven't been too concerned. But where the most problem is, that's where we

hear. But we need to get the entire stakeholder group together and discuss some of these things.

I have discussed it with a couple who gave me numbers. But I would think we would need to discuss that further.

COMMISSIONER MOELLER: I'll report to you next week on what I hear on Friday. But I have a pretty good feeling on what I'm going to hear.

I guess, finally, I think most of you know I'm a pretty strong proponent of the independent transmission model because to me it logically makes sense that if you're only focusing on transmission you're going to do it better. I think the evidence suggests that independent models are getting more transmission built, a theme we've heard throughout the day.

I guess I'd like both Mr. Furman's perspective and Mr. Zadlo's perspective, given that you come from different fuel sources generally, as to whether you've had a better response particularly from the resources' perspective of an independent transmission provider versus an alternative model.

MR. ZADLO: I love independent transmission entities. We interconnect at three facilities with American Transmission Company. The process was wonderful.

When you're an independent transmission company

you're a customer and you're treated like a customer. And they don't care if your load, if you're the incumbent utility, if you're an IPP, they treat all customers equally and they'll bend over backwards and perform the analysis.

We've had just a wonderful experience with the ITCs.

COMMISSIONER MOELLER: Mr. Furman.

MR. FURMAN: I would agree. While there's been a lot of struggle in the independent industry, they also are getting things done. We don't have the luxury of always having that independent option.

ISOs are certainly a good thing as well. There are certainly vertically integrated utilities out there that follow the rules and do it well and are interested in making investments in transmission. Those people ought to receive all of our encouragement.

But I would generally agree: I think independent transmission is a good thing.

COMMISSIONER MOELLER: Any other thoughts? Mr. Gramlich? Mr. Gosselin?

MR. GOSSELIN: I agree with Don's statement. Both can work. And we've seen them both work. Both work well. There are models that support and get our support.

MR. GRAMLICH: I might just add in response to your question and Commissioner Spitzer's about open seasons,

part of what we need is transmission developers to propose projects. The queues are known. The locations of the generation in the queue are known. Let's get busy.

If there are vertically integrated providers who aren't interested in building transmission let's let somebody else do it. If that means ITCs, great. And if it's an open season where you resolve the chicken and egg problem by putting the transmission first and putting it out there and saying to the generators, 'You all come,' you know, that's great.

We need a lot of generation proposed, a lot of transmission proposed. Which comes first, I don't care. Let's do them both.

COMMISSIONER MOELLER: Thank you, all.

Thank you, Commissioner.

COMMISSIONER KELLY: Thank you.

Steve, we didn't get to your list of proposals that you expect to present us with. It would be helpful if you could list those.

MR. KOZEY: Sure.

In the reforming of the queue process -- if you like backward-looking, like one of the other panelists called it, but I'd say applying it to everybody who's there -- recognition of milestone-based queues that would allow projects to proceed on their readiness rather than solely on

queue order. Most of the things, Commissioner Kelly, we're talking about relate to that.

If you've got something done you can go ahead to the next step without regard to a person being ahead of you in the queue. They themselves are moving at their own pace. But just getting into the queue doesn't lock in a permanent position. Some of this against the background of its needed investment and whatnot.

For our wind areas there isn't extent capacity where somebody's in the queue and they're going to get hooked up for free and no backbone development costs and they're just clogging other things for us. Every significant area for wind development is going to require upgrades to the backbone facilities to get on.

So for people who are willing to pay and want to go ahead, I personally think they ought to be able to get that chance and that thought. So we don't have the luxury of there's some buffer and ten people are fighting about it. This process ought to give the people who are willing to take on cost and development risks the chance to get ahead in the queue to do that.

COMMISSIONER KELLY: Before you move to the next point, let me ask the generator representatives is that idea consistent with what I've heard from all of you, I think -- although I'm not sure Kris actually said it -- that

requiring the developer to put more financial commitment up or more security in advance, is that consistent with your view that that's a good way to move the queue along?

MR. FURMAN: It is with mine, yes.

MR. GOSSELIN: Yes. I don't think it's the only mechanism. As Mr. Kozey has said, we've been working very closely with the MISO organization to try to determine a path forward. And it does go back to a state of readiness.

There are certainly projects that are ready to go but for the interconnection study facilities phase of the project. That's what we're trying to get through.

COMMISSIONER KELLY: Kris.

MR. ZADLO: I think clustering, reasonable clustering and reasonable milestones would alleviate a lot of the problems. I'm a little hesitant about people starting to leapfrog in the queue. I see that bringing with it different problems, and even different tracking problems for the ISO.

COMMISSIONER KELLY: But the idea that there would be more attention paid if additional security was put up front or a greater financial commitment was made or a generator, I think Don said, with skin in the game is ready to go. You don't think that they should?

MR. ZADLO: Absolutely. I think the way we structured LGIP when we wrote it, it was either/or. It was

either some significant milestone or collateral. Getting an air permit can be millions of dollars in certain state jurisdictions. That's a significant collateral expenditure. If you're doing that, that should count for your collateral portion.

COMMISSIONER KELLY: Thanks.

Steve.

MR. KOZEY: Commissioner, two concepts there.

One, increased upfront money, which we talked about. There was a question of another panel: do those costs change with size. We're going to be doing the statistical analysis and present it to our stakeholder. But there is some minimum amount that everybody faces, no matter if you're an 18 megawatt unit or an 80 megawatt unit, that to determine a little bit what's a cost-based rational higher threshold.

But then, although as you can hear, people who are constituents of ours have differing views about whether the proposal to jump in queue order based on progress is an unalloyed good thing.

But one of the elements that will allow that is this demonstration of milestones. Whether it's money deposited with us, I'm not thinking that so much as evidence of the company achieving milestones in its project development scheme. We will probably bring back to you some

requests to perhaps give consideration to shortening the three-year suspension that people are allowed to have. Whether that's ultimately only appropriate for wind because it can build and develop faster than base load coal or nuclear, I don't know. It may be.

COMMISSIONER KELLY: Do the generators have difficulty with shortening the three-year suspension period?

MR. FURMAN: I'll go first.

Dean and I differ on this. We do object to it primarily because somebody -- I can't remember if it was on this panel or the earlier panel -- things happen in the development process. When I look at the numbers, the suspensions, for example, they're eight percent, ten percent; it's not the bulk of the problem.

The bigger problem is there's this big flood that has come into the queue. We very much value that, certainly. We can talk about some shortening of it. Down to a year would be a significant impediment to our business, I think.

MR. GOSSELIN: If I may, we come at it a different way. If we fix this backlog and there's a clear path to the solution, a clear, unambiguous avenue to an LGIA, you don't need the backlog. You know when you have to get in the queue to get to the end point. So part of our thought is removing the suspended projects or reducing the

suspension is also taking care of the current logjam, which we need to do.

But we do ultimately see there's got to be a clear path. And that's what gives us comfort that we can continue to develop and be so successful.

COMMISSIONER KELLY: Thank you.

MR. ZADLO: I look at it a little bit differently.

There's a lot of risk putting steel in the ground. What we're talking here is studies, studies performed in an office whereas the construction delays in putting steel in the ground are numerous. There's an infinite amount of things that could go wrong in the field. And three years is reasonable.

To be frank, if you're building something and something happens the workers -- are on strike or something blows up and you need to replace equipment -- then you should be afforded an extension. I'd go the other way. There's problems with kicking people out of the queue.

And I'd point out a problem we had in PJM. PJM has a rule that if you're mothballed longer than a year you lose your ISA. We didn't know that. We mothballed one of our facilities. We wanted to bring it up. It's in the east. The RPM market's red hot. Well, we've been mothballed for 16 months. We have to go back into the

queue.

You might inadvertently be creating another queue problem because all of a sudden everybody has to go back to the back of the line whereas you have viable projects that are moving forward.

COMMISSIONER KELLY: Thanks, Kris.

Steve and Charles, the generators suggested -- I think I heard the suggestion that as the queue numbers ramp up you should be ramping up your resources to handle the studies. Do you agree with that? If you do, can you do it? Do you have the resources available? Do you have the money available? Or would that not solve the problem?

MR. KOZEY: The profession is resource-constrained, not just with the employer.

We have had major businesses who are consulting businesses or consulting engineers who will do this: turn down work from us because they have enough of this and they have some other higher value projects or uses for their staff. So it is not a question of Midwest ISO agreeing to hire three more people in order to meet the deadlines, even if we had failed to do so uniformly, that are provided for in our tariff. We will hire outside folks.

There's been a suggestion that maybe some of those outside folks for some studies could be from the developers themselves. I think that would be problematic

unless very, very carefully done for everybody else to feel that the result that came back on these studies from the person that wishes to build a plant has the same credibility, if you will, or independence from others.

COMMISSIONER KELLY: A final question from me and then I'll let Ray ask his question.

It sounds like in the MISO area you're pretty far along with the stakeholder process with a proposal to bring to us to actually solve the problem retroactively, if you will, and prospectively. What could we do that would best help your process at this point?

MR. KOZEY: If you can stay briefed by your Staff, the people who ultimately report what that stakeholder process is ultimately considering so that by the time we bring it to you the Staff is familiar with what's likely to come, that would be a great help.

Also, Commissioner, when you said that maybe the Commission would be entertaining company by company filings as opposed to feeling it had to do a rulemaking, that's a great help as well.

COMMISSIONER KELLY: Thank you.

Ray.

MR. PALMER: Thank you, Commissioner.

Following up on Commissioner Moeller's question about limiting wind machines, for example, for a certain

grade of technology, are there certain aspects of the study process or the qualification process that can be standardized or automated in a way to make the actual analysis go faster or be more robust in terms of a model developed for a certain situation having to be restudied if there is a generator who drops out for whatever reason?

MR. HENDRIX: Well, that may cut down on some restudy.

I didn't speak of it before, but I don't think limiting studies to one -- or developers to one particular type of turbine would probably be overly discriminatory in that a lot of these factories are built out and nobody can get in line. But if you were to do that and were studying -- all the turbines you're studying have a very similar technology, then, yes, the restudies may not need to be performed.

MR. PALMER: When you say 'similar technology,' is there potentially some kind of performance specification from the transmission system point of view that could be enforced regardless of who's making the machine, or maybe other differences in technology?

MR. HENDRIX: Right now -- I guess it's Order 661, and the local provisions are what we have right now. But there's very specific requirements.

Wind issues that I've heard we don't address with

the local provisions are keeping up with the voltage regulation during wind fluctuation when the turbines drop off, regulating the voltage at that point. Some turbines are better able to accommodate that than others. But yet they may not have the SPC type devices to accommodate that.

MR. KOZEY: Mr. Palmer, we've really tried hard not to be fuel-choosers. We've therefore also tried really hard not to be equipment-choosers.

In addition to the megawatts of wind we've got nuclear stuff in the queue, we've got base load coal plant in the queue. And we haven't yet seen our job as having a relevant portion that's picking technologies. It's more towards interconnection to the grid of the technologies that the owner wants to bring rather than us being an agency to channel that.

We do rely on NERC, NAESB and other equipment manufacturer requirements and protocols as thresholds for what can be brought to us. But we don't pick preferred technologies.

MR. HENDRIX: Also, the power factor requirements for wind generators, it says that you can only apply these if you can completely prove it in the studies. And, like I say, for 8760 type situations it's hard to actually prove that in the context of these situations. So possibly if that requirement was lifted and we apply this plus or minus

95 percent power factor to all wind generators.

MR. KELLY: I just have one question.

We're calling this a queuing or intersection problem. And yet there are really two aspects to interconnection. One is what I'd call kind of limited local interconnection, the ability to hook a generator up without disturbing the grid in such a way that a neighboring generator isn't disadvantaged electrically.

Then there's the second problem. You can't pour a quart of water into a one-cup container. And if you're trying to put too much new power into a local grid you have to have the ability to export it. So you need to build transmission that may be beyond the control of local transmission operators to build.

Is it possible to say how much of the problems we're seeing are the first type: pure, simply local interconnection problems and doing those studies and how much of it is the problem of export and really needing new transmission as opposed to having a pure, simple interconnection problem?

MR. KOZEY: If the person who was supposed to be giving these remarks were here--

(Laughter.)

MR. KOZEY: Our vice president of transmission asset management, he'd be better able, Kevin, to give you an

off-the-cuff answer. I'll prepare a written answer to your question and we'll get that to you.

MR. HENDRIX: We do see as far as local interconnection that we do have a big problem because we will see one interconnect point, multiple -- three, four -- interconnection requests. And the first one is easy; the second one may work, may not work. By the time the third one comes along there's frequently a line. But then the problem compounds with us.

Now the first one, he's on suspension. He doesn't have any deliverability and we're still studying him. He's got a queue position but he's there.

And then as far as the latter, the exports type situation, we do have some export-constrained regions. And even though we're studying just interconnection, we're just studying small areas. But because of the entire area it's more constrained. Then the same thing happens.

MR. FURMAN: Kevin, as you know, I'm not a transmission planner but I play one on TV.

I had this exact conversation with one of our electrical engineers last night. He was the one who urged me to make the transmission point. If you had a bigger cup, to use your metaphor, a lot of this problem would go away. It is not the initial issue you addressed. It is largely the latter, the lack of adequate transmission.

MR. GOSSELIN: If I could say, when I think about the competitive energy zones or the CREZs, that's a regional system planning. That's about trying to get in front of where they expect the next regional resource to come from. That's building the backbone. It's a combination at the end of the day of local and regional. We see it just about everywhere.

I can tell you the general constraint to our projects is the interconnection capability and the local thermal limits, not the regional. But it's becoming the regional as we saturate the local.

MR. KOZEY: Kevin, I did find on page six that we addressed your question in part.

It's not the whole queue but this Buffalo Ridge area which is Minnesota, Iowa, South Dakota, kind of together. There's about 22,000 megawatts of requests for interconnection. But the outlet capacity plan for the region by 2014 is under 2000 megawatts. There have to be new major backbone facilities other than those that are already being pursued by builders, transmission builders in the region to make that a plausible place for the strong wind resource that people have identified to get on the grid at all.

I'll still give you a written answer.

COMMISSIONER KELLY: Do you have a 30-second

question, Ray?

MR. PALMER: Just real quick.

When you talk about those local drag through and other issues around that, would it be more efficient to have some grid level solutions such as a static bar compass here that encompasses a wider area rather than looking at this particular type of situation?

MR. HENDRIX: I believe the issues would be turbine local area wind farm specific. If it's not a turbine that can produce more, they don't have an SPC, that's where we're studying.

I believe wind farms would be okay.

MR. GRAMLICH: Mr. Palmer, I believe first of all many of these questions were raised two or three years ago and Order 661 I think resolved many of them.

On that question I think the reasoning in 661 is often the solution is not most efficient at putting it on the generator but there is a more efficient system solution. That's why the standard in place on reactor power is a demonstration of whether it's the right solution and whether it's needed from the generator.

COMMISSIONER KELLY: Thank you.

I understand Clair Muller wasn't able to be here today. And I do want to take the opportunity to publicly acknowledge his significant contributions in this area. I

know that he has been up front, a leader, not only in understanding what the problem is but in proposing solutions. And although I hear from a lot of people who are frustrated with the queue process, I don't hear any frustration with Clair. So if you'd pass on our thanks to him.

I'd like to invite all of today's panelists -- past and future -- to the eleventh floor for lunch and to let the rest of the audience know the Sunrise Caf is open and waiting for your business.

(Laughter.)

COMMISSIONER KELLY: We'll reconvene at 1:30.

(Whereupon, at 12:35 p.m., the technical conference was recessed, to reconvene at 1:30 p.m., this same day.)

A F T E R N O O N S E S S I O N

(1:35 p.m.)

COMMISSIONER KELLY: We've reconvened.

Today we have Armando Perez, vice president, planning and infrastructure development, California Independent System Operator, Elliot Mainzer, manager of transmission policy and strategy, Bonneville Power Administration, Dennis Desmarais, director of transmission service, PaciCorp, Ronald Litzinger, senior vice president, transmission and distribution, Southern California Edison Company, Jan Smutny-Jones, executive director, Independent Energy Producers Association Joshua Bar-Lev, vice president for regulatory affairs, Brightsource Energy, and William Engelbrecht, vice president, planning and analysis, Sempra Generation.

Thank you all very much. We'll follow the same protocol as we did with the last panel. We'll take five minutes each for you to give us your remarks and we'll follow up with questions and answers.

Mr. Perez.

MR. PEREZ: Good afternoon. Thank you very much for pronouncing my name correctly. It's such a nice experience.

Transmission providers and generation developers across the country are now experiencing frustration and

significant hurdles to bring on their new resources. The current interconnection problems in the ISO footprint are in large part centered on the unprecedented proliferation in the number of interconnection requests driven by aggressive state renewable portfolio standards.

Since implementing the LGIP on July 1, 2005 through November 30 of '07 we've received 212 interconnection requests totaling 65,645 megawatts. Approximately 40,000 megawatts of those are renewable.

To give you an idea of what the problem really is, in January of '06 we had 5700 and in January of '07 we doubled to 11,000. As of November we quadrupled to 40,000.

It's interesting to note that that amount of megawatt is trying to serve a peak load of 50,270. So the large number of requests and the high level of capacity in the CAISO queue have exposed certain deficiencies in the current serial study process.

We've identified many of those deficiencies. And I want to address several particular problems because it will impinge on this process of solutions.

The queue process is too easy to join and too easy to abstain and withdraw from. Simply put, developers can come and go without any significant commitment and with only minimum financial risk. Low barriers to entry and inadequate progress milestones appear to allow unacceptably

high levels of speculative projects that ultimately withdraw from the queue or linger in the queue by exercising their current right to suspend for a three-year period.

Many of those projects may not have a buyer or financing, or any realistic prospect of control or oversight or an ability to timely obtain the necessary equipment to fulfill its stated on-line date.

When a queue is populated by a large number of projects that lack commercial viability it leads to significant delays and uncertainties in the process. Uncertainty is particularly problematic. Project developers do not have a clear understanding of their ultimate transmission costs and that impairs their ability to obtain financing.

Financing difficulties are exacerbated by the fact that under the serial study approach these disproportionately high costs may be allocated to the developer unlucky enough to be assigned the queue position that triggers the necessary, yet lumpy, upgrades.

Other projects located in the same electrically connected region may benefit from the capacity lumpiness by having little or no upgrade costs. Moreover, both project developers and transmission providers can have little confidence in completed study results knowing that those results are likely to be rendered irrelevant by the

withdrawal of higher-queued projects.

While the problems with the management of the current queue process should not be underestimated and clearly must be addressed by the Commission to facilitate access to renewable resources, these problems should not be singled out as an excuse for failing to meet California RPS goals.

Following close cooperation with the CPUC, the CAISO approved participating transmission owners and other stakeholders, two network transmission projects intended to facilitate renewable resource development. The Tehachapi Renewable Transmission Project will provide access to 4500 megawatts of wind generation, and the Sunrise project, which will make approximately 1800 megawatts of geothermal and 900 megawatts of solar. These projects represent a potential for approximately 29,000 gigawatt hours from renewable resources, certainly enough to meet California's 20 percent goal.

The queue management process needs reformation. We'll be working with the CPUC and the market participants to develop for Commission consideration potential solutions to address this, as well as establish a basis for effectively going forward. The basic objective is to reform the queue so that the study outcomes are more realistic and ensure more efficient interconnection of resources to match

system needs.

First the ISO must utilize existing clustering or group study authority. The CAISO envisions performing group studies for requests with similar electrical impacts and assigning upgrade costs to the projects on a pro rata or similar basis. Assigning costs in such a manner will more equitably spread cost responsibility for upgrades and mitigate the negative effects of the current 'but for' allocation approach.

Moreover, pro rata cost allocation should greatly reduce but not wholly eliminate the expense and time implications of restudies caused by generator withdrawals. Clustering without further queue reforms will not by itself effectively address the fundamental problems of reducing the unrealistic level of requests and capacity seeking information. As such, the second set of reforms must adjust the current approach by requiring greater developer commitment.

There are many potential permutations of such adjustments that the Commission should consider. The CAISO believes several adjustments will likely be necessary. For example --

MR. PALMER: Mr. Perez, can you summarize very quickly?

MR. PEREZ: I'll stop right now. We can talk

about that more later.

But I just want to note in conclusion, thank you for allowing me to be here. In the next couple of months somebody should step in my office and say that, 'I'm from the Federal Government. I'm here to help.'

Thank you.

(Laughter.)

COMMISSIONER KELLY: Mr. Mainzer.

MR. MAINZER: Thank you for the opportunity to comment today. I'm going to address the open study process that BPA has developed in the Pacific Northwest and why we think that the proposal, while certainly not a panacea, does address some of the more intractable problems associated with transmission service request queues.

Like other transmission providers faced with large geographical footprints and growing loads and meeting portfolio standards, it's also become clear to BPA that we need a mechanism to identify the most mature and viable requests in the transmission service queue. In Order 890 the Commission required transmission providers to conduct studies if requested by customers and indeed feasible.

At BPA we're taking clustering a step further and embracing it as our basic way of doing business to support system expansion. Borrowing from the national gas industry and relying on several transmission providers who have

experimented with a similar approach, we have developed an open season process for the BPA transmission network.

During the network open season we will offer all parties with a transmission service request in the BPA network queue an opportunity to sign a precedent agreement. A precedent agreement is a binding contractual commitment to take transmission service from BPA contingent on BPA's ability to deliver that service at our embedded cost rate and complete required environmental work prior to construction of any required new facilities. We are structuring the precedent agreement as a good faith offer of transmission service.

Those parties who do not sign precedent agreements will have their requests withdrawn from the queue. BPA will then aggregate all of the requests of signed precedent agreements and conduct a cluster study which will monitor the impact of multiple new generationally dispersed resources to disperse future loads and expected low growth, which many new facilities will be required to accommodate the requests as well as the timing and cost of the new facilities.

With signed precedent agreements and a completed cluster study, BPA will then conduct a financial evaluation as part of a new commercial infrastructure policy. That is also then heavily vetted with regional stakeholders.

This financial analysis will determine whether there is sufficient present value in the form of contractual commitments to take long term service plus future beneficial use and collateral reliability benefits to proceed with construction of new facilities and offer the new ATC at BPA's embedded cost rate.

For BPA this commercial infrastructure policy marks a shift away from the requirement to generators to provide up front financing for generation transmission lines and addresses the longstanding problems associated with such an approach. Once BPA has met the terms of the precedent agreement offering transmission service at embedded cost at completion of environmental work in support of the new lines, it will execute agreements for the transmission service in the customers' original transmission service requests.

There are strong indications that two major upgrades -- the Interstate 5 corridor linking Portland and Seattle and the line connecting to the high wind resource areas in eastern Oregon and Washington -- will be required to accommodate all executed agreements. We've been looking at those lines for quite a long time.

We're in the process of finalizing terms and conditions for the precedent agreement through a stakeholder process. Although close, we're still working on a few final

issues related to minimum contract terms and how conditional firm service might be integrated into the open season process is a bridge product between requested service commencement dates and the time when construction of new facilities is complete.

While recognizing the rights of parties to submit requests of any duration of at least one year in length, we're structuring the precedent agreement to incentivize contracts at least ten years in duration. We're deliberately minimizing the amount and complexity of allocating study costs in our initial network open season to minimize obstacles to widespread participation.

We have yet to design the process that's associated with developing an incremental cost rate. We are unable to offer service at our embedded cost. That can be required of additional work left.

Our plan is to describe our network open season cluster study project in our 890 tariff, which will be filed in early 2008. We're moving aggressively and aiming to conduct our first network open season in the first half of 2008. It will be a repeatable process coordinated with other regional transmission and integrated resource planning efforts. It will to some extent replace and to some extent complement the existing process for conducting system facilities studies.

To emphasize, this process is primarily focused on the transmission service request queue. Out in the Northwest we've certainly had some challenges associated with the LGIA but we've been reasonably successful in the last couple of years. We've built over a $100 million interconnection infrastructure. We've going to have 1450 megawatts of wind energy in the BPA control area by this winter, putting in another 700 this year.

A big pressure point this year is focused on the transmission service requests. We figure in future iterations, especially learning quite a bit this morning about LGIA, we'll continue to address that as well.

Thank you for the opportunity to comment.

COMMISSIONER KELLY: Mr. Desmarais.

MR. DESMARAIS: Thank you for allowing PacificCorp the opportunity to participate in today's conference and to present our views on existing practices and potential alternative practices and enhancing queue management.

PacificCorp welcomes the Commission's invitation to address current queue management challenges while still honoring the foundation and goals under Order Number 2003. PacificCorp approaches this issue as both a transmission provider operating one of the largest investor-owned open access transmission systems in the western United States,

and as a load-serving entity who are required by our state regulators to have significant renewable resources over time.

With this perspective in mind I'd like to offer several observations about the state of interconnection queue management on our system and put forward several recommendations as the Commission considers possible changes to the standard queue management approach laid out in Order Number 2003.

Compared to the interconnection logjam and other challenges that transmission providers and project developers alike are facing in certain regions, PacificCorp's situation can best be described as stressed but manageable. In our view queue management largely works as Order 2003 intended, particularly with respect to long lead time resources and our interconnection customer base is generally satisfied with the current tariff practice.

To put our views in context, since the implementation of Order 2003 we have interconnected 22 generating facilities totaling 2200 megawatts. Most but not all of that development consisted of convention generation sources that were almost exclusively being developed on our system at the time Order Number 2003 was issued.

More recently, however, we witnessed a dynamic evolution in the makeup, volume and nature of our queue

requests. The number of large generation interconnection requests in our six-state service territory has nearly tripled in two years, from 30 at the end of 2005 to 78 currently, totaling 10,000 megawatts. Our queue is now predominantly wind, 75 percent, followed by natural gas and the remainder of the resources including coal.

With that said, since May 2006 we have still managed to complete more than 90 percent of our feasibility system impact and facilities studies within Order 2003 and tariff prescribed guidelines. This is not to say that our customers would not like to have them completed faster; we know they would. As you might expect, we have had instances where our customers desire an even faster process.

However, PacificCorp is fortunate not to share the queue management struggles experienced elsewhere in meeting the tariff prescribed timelines. We believe this is in large part due to the nature of our expansive service territory in the west. The built-in flexibility provided by Order 2003 and the changes we've made to our transmission business practices offer some flexibility to shorten the overall process.

Three efficiency-enhancing accommodations allowed by Order 2003 are particularly worth highlighting. One, the option to skip a feasibility study when requested by the interconnection customer; two, executing an engineering and

procurement agreement prior to the facility's study and therefore prior to execution of a large generator interconnect agreement; three, allowing the interconnection customer to build facilities -- typically interconnection substations -- that PacificCorp will own.

Such accommodations generally provide customers with the ability to accelerate the interconnection process to meet projected in-service dates and the ability to appropriately accept construction risks where the transmission provider is not able to meet the desired in-service date.

In our view the uniform first come-first served approach generally remains reasonable as a default industry practice. Under the sequential study process the withdrawal of higher queued requests has not significantly hampered our restudy efforts for lower queued projects.

Certainly it takes resources to study all requests. But the reality is that many projects will withdraw. We do not know which requests are going to go forward and which ones will withdraw but assume higher queued projects were in play as we were performing the studies for lower queued projects. And we adjust if requirements change.

Among the alternatives receiving attention as potential improvements, PacificCorp has had only limited

success evaluating interconnection requests with a cluster-like approach. For this reason PacificCorp is not supportive of the imposition of any mandatory requirements for clustering interconnection requests or the imposition of rigid time periods or geographic cluster study requirements, proximity study cluster requirements, which could just as easily backfire by excluding or including certain projects that make sense to be studied with others.

Likewise, PacifiCorp does not see any advantages to requiring open season-like processes in the interconnection queue. The biggest challenge we see with open seasons is completing them in a timely manner and getting interested parties to make commitments while conducting restudies as queue customers drop out.

In short, our queue management experience makes us very skeptical that material revisions to the Commission's current Order 2003 standardized tariff approach would yield superior customer service and outcomes on all transmission providers' systems. That said, minor adjustments such as accepting proposals that deviate from a standard queue process and encourage transmission providers and project developers to fully avail themselves of the beneficial tariff flexibilities provided under Order 2003 are two practical ways the Commission could accelerate.

Again, than you for the chance to contribute our

perspective. I look forward to answering any questions you may have.

COMMISSIONER KELLY: Thank you, Mr. Desmarais.

Ron Litzinger.

MR. LITZINGER: Good afternoon, Commissioners and Staff.

Southern California Edison also appreciates your convening this technical conference to consider the challenges presented to everyone by the current queue process. As you've heard from several others this morning, it does hinder us as well to get generators interconnected in a timely manner.

We've provided the Commissioners -- and we have copies available in the audience -- our queue situation is a subset of the overall Cal ISO queue. But you can see within our service territory we have over 40,000 megawatts of new generation capacity in our queue, which is nearly double our peak demand of 23,300 megawatts, which we set this past summer, and well above the latest ten year load forecast prepared by the California Energy Commission.

Southern California Edison, along with the California ISO, has been proactive in developing major transmission projects and addressing prospective generator interconnection issues arising during the process, such as in the case of our 4500 megawatt Tehachapi renewable

transmission project. In fact, we intend to start construction on this project in January 2008.

As you have heard already today, despite such efforts the sheer volume of interconnection requests and the many interdependencies among the projects has rendered the current serial interconnection study process difficult. Both generators and owners are frustrated with the current process.

Under the current serial study process generators have trouble financing and planning their projects because of lack of certainty regarding their upfront cost responsibility. Transmission owners are equally concerned that completed interconnection studies can quickly become obsolete due to withdrawals of the higher queued projects and the subsequent restudies, which we demonstrated in the second slide, our point here being with restudies it often becomes toward the tail end of the deadlines and we press against those deadlines and take too long.

Southern California Edison has been working with the California ISO, the California Public Utilities Commission and the other investor-owned utilities in California to develop a solution that will work in California. In the near term SCE believes that systematic implementation of clustering appears to be the best solution to streamlining the process. I emphasize, however, that to

be most effective clustering needs to be implemented both on a retroactive basis and on a prospective basis.

I'll address those here.

For a glimpse into what SCE sees as far as solutions to the problem, we envision a forward clustering solution that allocates cost responsibility on a pro rata basis within each cluster so as to more equitably spread the responsibility for network upgrade costs among all projects that benefit from the capacity. Pro rata allocation mitigates the potential for gaming with the 'who triggers pays' allocation methodology or reducing the need for numerous restudies should a generator withdraw from the cluster.

Generators would receive credit back upon commercial operations, similar to the current practice.

Under the forward clustering solution transmission owners would retain the option to upfront fund the networks. Under the retroactive solution SCE also believes the transmission owners should likewise retain the option to up-front fund on a case by case basis if specific criteria are met, just as SCE agreed to upfront fund the two billion dollar Tehachapi project.

Southern California expects that retroactive and prospective clustering solutions may require FERC approval of certain tariff changes, possibly even a waiver of certain

tariff provisions such as the case in the developing of our transmission plan of service for Tehachapi, where ISO did request a one-time retroactive cluster waiver.

We will continue to work with the stakeholder group and hope to have some proposals in the spring as well.

SCE believes that a regional solution for California is appropriate and does not see the need for a national solution. We think that all situations are different.

I would also like to highlight what the California Public Utility Commission pointed out earlier. The California Renewable Energy Transmission Initiative -- or RETI -- which serves many of the attributes of the CREZ initiative in Texas, we feel that this type of an approach will be most effective.

Again, SCE appreciates the opportunity and will be happy to take your questions at the end.

COMMISSIONER KELLY: Thank you, Mr. Litzinger.

Mr. Smutny-Jones is next.

MR. SMUTNY-JONES: Thank you very much. I appreciate the invitation to be here today.

I was invited I guess to be the ghost of Christmas past. IEP represents the entire 300 megawatts of coal in California. So we wear many hats. We have been doing this for about 25 years; I've been there about 20. So

this topic is not new to us; it's just taken a different form.

As an opening observation, a distinction between the glass being half full or half empty and everybody concluding that it's not large enough, it's clear that we need additional transmission to be built. If in fact I'm speaking now of renewables, if we're to meet our global climate change goals in the IPS, I believe that probably exists in other regions as well.

I think the efforts afoot here at RETI and elsewhere to build the transmission into areas -- and we know where those areas are, frankly -- is a good one. This is no different than the transmission lines that were built in the Northwest to bring hydro resources to California, or the lines that were built to Four Corners to bring coal in from New Mexico. This is a good effort and the direction to go. The Tehachapi approach we think should be explored further on this.

With respect to the existing queue -- this is the second point I want to make -- it's a matter of existing policy if a first in-first out -- I think everyone has kind of talked about that a little today. We ran into some problems here. There may be multiple reasons why people have multiple sites. Renewable developers are looking for all kinds of places where they may be able to develop their

projects. It's not always a given that they have the optimal site. They may have environmental review requirements with having alternate sites. So there may be all kinds of reasons for that.

In addition to that, one man's phantom is another man's dream. It's really difficult if you get them to try to sort this out, you know, woe unto you. There is really no objective way other than what I will recommend in a few minutes.

With respect to the property issue -- and I thought that was kind of interesting -- one of the questions I have been toying with is what does that really mean. It sort of seems to me that having a property right in a queue for an interconnection to a transmission line that doesn't exist is sort of like owning land on the moon. I have an acre on there. I don't know what comes out of that.

But the point is we've got to be careful about how we mess with the existing queue, to be quite candid with you. Most of my members support the LGIP. They think that has actually been progress an believe some of the pre-LGIP projects that are on the queue in California right now need to be moved into that queue so we can basically move things forward.

The question of managing that queue is not new to California either. The concept has been here of throwing

milestones out there. In the early queue updates we found out the first in-first out created problems. We came up with a milestone procedure where money and milestones actually mattered.

The other data point there that's very important is that the administrator is actually administering the queue properly. And I don't think in this case that would be a problem.

With respect to going forward in that queue management you basically need to design the milestone that has a development plan around it so you basically have your data points of what they're supposed to do, some specific earnest money or revocable letter of credit that needs to be real and may or may not need to escalate over time. You need basically a triggering mechanism of what it needs to fairly meet a milestone, which is either increase the earnest money or forfeit your place in line.

You also need -- basically there are reasons why people may feel that have nothing to do with their efforts. So those are the elements you're going to need for any basically milestone procedure there.

In closing here there's a couple of other data points that I was asked to share with you. One is my members do support, Commissioner Kelly, your observation that perhaps third party studies would be important here in

terms of adding additional resources. There's issues that have been used with respect to the transparency of the base load cases, making sure they're available to third party consultants, and the ability to basically cluster and engineer those types of projects.

Lastly, I just kind of want to point out, again going into Mr. Peabody's Wayback Machine when we were putting QFs in place, a number of the generators actually built their cogeneration system. We had cogenerators building up tests out at Stockton, the Salton Sea, all that was built. And there were new resources coming in at Tehachapi. So there's some precedent for third parties actually being engaged in this. Obviously, everybody should be facing the constraints so only so many people are available to do this.

One of the problems is there's not enough resources, not enough hands on this. Perhaps coming up with standards and coming up with these studies is the right direction to go.

With that, I'm ten seconds over. So I'll conclude.

Thank you.

COMMISSIONER KELLY: Thank you very much.

Joshua Bar-Lev.

MR. BAR-LEV: I'm not sure how much more I can

add to what Jan just said.

I represent Brightsource and other solar developers and a number of wind developers through the California Wind Energy Association. We've been working together to develop a common sense solution to the problems associated with this mess in California.

Our solution is summarized in the handout that we've developed, developed particularly by Dariush Shirmuhammadi, right behind me, and who can answer some questions if we get to that level of detail. One is the actual queue problem. The other is sort of the actual larger problem.

I guess I'd like to start with the metaphor Jan just used. I was there at PG&E after the great inter-tie was built between the Northwest and California. I can tell you that was planned and built, if my memory is correct, in all of three years. It's a monumental achievement in the west. We're all proud of it. But it was done in three years.

The important thing about it is it was done not from the bottom-up but from the top-down. There was a decision made that if you build the highway it will be used, it will be needed. That was a very important principle to have operable at that time.

Here what we're doing is we're designing

everything from the bottoms-up. I think that's just a basic flaw in the system because what that means ultimately is that every time someone comes in that creates the need for a new study. Every time someone opts out that creates a new cost allocation and a new study.

This is taking months and months and a giant amount of money for an asset that is ultimately four to six percent -- I've heard seven percent -- of our total electric bill, and one that we know we're going to end up using: transmission. We should really not be approaching it this way.

You know that the study process is complex. It's reiterative. It's duplicative. And it doesn't even match what's going on right now by the utilities for their system studies. So the first solution we think needs to be made is that the actual transmission upgrades needed to interconnect projects should be planned through a regional transmission planning process so there's no difference between the developers and the utilities. This would allow the interconnect study process to be significantly streamlined and you would establish cost responsibility more or less definitively.

I'll get to costs in a minute because I believe ultimately the costs should be socialized.

In the short-term we've got to create an HOV

lane. We've got to really be creative on this. Folks should grant a one-time go into the queue right now. It needs to create a one-time waiver of existing queue rules to allow for retroactive clustering.

Generators who are willing to sign an interconnect agreement resulting from that and making an earnest money deposit should receive a timely interconnection agreement. The major benefits of this approach would be that we could clear the queue within six months to a year. And when I say six months to a year, we should be able to reach the point where everyone's signed an interconnection agreement within one year from right now, not three years from right now.

When I say timing certainty, we need to have utilities and the ISO committing to dates, committing to budgets, and having the entire process transparent. We should be able to do the restudy resulting from the retroactive clustering in three to six months. We shouldn't be then redoing the study, all again from the principle that this is going to be a very valuable asset. We don't need to study it and restudy it and restudy it and restudy it.

I guess we've all sort of agreed here. And I guess I'd like to make one important point. That is that the coordination required among the various government agencies here -- local, state and federal -- is enormous but

quite doable.

If you look at the chart that I drew, which is in front of you and tries to show the interrelationships, it's very important to pay attention to that chart. What it shows is the truck is in the middle of a multi-agency process here where, to use Bill Graham's famous line after the Loma Prieta earthquake, it's everybody's fault. And we all have to contribute to the solution of this.

So that once, for example -- I don't know whether Larry is here, Larry Chaset -- once we actually get the study done, once we actually determine -- once everyone signs and we have to go into the Commission, the Public Utilities Commission for a CPCN, there's no reason we shouldn't be going in there with a cluster CPCN. And there's no reason why we can't try to shave off perhaps a year off of that process. If we're able to do all those things we will actually clear the HOV lane.

Thank you very much.

COMMISSIONER KELLY: Thank you.

William Engelbrecht.

MR. ENGELBRECHT: Thank you, Commissioners, for having Sempra Generation speak today on this very important topic. Sempra Generation is traditionally a greenfield combined cycle generator and developer. However, over the last 18 months we've really been focusing on wind and solar

development within Sempra Generation.

A few observations about the queuing approach. We believe it is broken and needs fixing. There's far too many phantom projects clogging the queue. This hampers the study effort as well as queue management efforts.

As you've heard from Army at the other end of the panel here, it's far too easy to stay in the queue -- to get into the queue, and also to stay in the queue today.

The other thing. On the Cal ISO, depending on when an interconnecter put in their queue requests, there's three to four different classes of queue rules depending on when you enter the queue. That's not a good thing.

Also, if you choose to move forward as an interconnecter today you have no real interconnection cost certainty as long as there's others in the queue ahead of you. They could be real or phantom ahead of you. And if some day they develop you could be sent a bill ten years from now potentially. That's on the far out, maybe, but there's no cost certainty when you interconnect today. We think that needs to be changed.

One of the biggest issues today in running the interconnection studies is they're done on a project by project serially performed basis. When you have that it leads to tremendous inefficiency and ineffectiveness. We suggest they be done using a cluster approach.

If you have, say, a 1500 megawatt cluster you don't just study the 1500 megawatt level, you study different tiers getting up to 1500 megawatts so you know for every incremental transmission facility addition, you know the cost of that addition, the incremental megawatts it buys you, all the way up to the top of the cluster. That way as projects drop off, which they inevitably will, you're not stuck knowing, okay, we know what we need to do for 1500 megawatts but what do we do for 800 megawatts.

This way, by doing a tiered approach, you know all the costs of all the megawatts all the way up the tier. We would suggest that enhancement to the cluster approach. We think it's a much more effective way to do studies.

Several other suggested interconnection queue changes. We do believe that there are more robust milestones that are necessary in order to eliminate phantom projects from getting in the queue and staying in the queue for what seems like forever. These additional milestones could be site-control, active permitting, those kinds of things that you've heard earlier. They could be increased deposits from the developers.

But the key message I want to portray here is we need to have a process that rewards real projects and gets rid of phantom projects or speculative projects. In a way all projects are speculative up to a point. But there are

many in the queue today that are there for one reason: that's to have a speculative position that they might some day monetize to someone else.

We do think all projects in the queue need to be treated with the same set of rules and not a different set of rules like currently in the Cal ISO queue. We think that interconnection costs should be allocated on a per-tier and possibly a pro-rata basis. It's for those projects that are ready to commit and move forward.

If I've got an interconnection request and I've gone through the process and I'm ready to commit to my project and move forward I should be able to do that with price certainty on that interconnect. If a competitor of mine isn't at that point yet they can still stay in the queue in their current position but they shouldn't be allowed to sit there and block real projects from getting to the finish line.

When we look around the country, especially in California where we're based, the different RPFs goals, which are substantial today, but we see them growing over time. Those goals are only going to be met if real renewable projects get put in the ground. If we don't have an interconnection process that allows real projects to succeed and move forward the RPFs levels as the Federal Government, California, and other states are setting out are

not going to be achieved. There's no possible way they'll be achieved.

That's really the key message I want to deliver. I thank you very much for having us today. We stand ready to answer questions.

COMMISSIONER KELLY: Thank you very much.

We have a significant amount of time for questions.

Commissioner Wellinghoff.

COMMISSIONER WELLINGHOFF: Thank you, Commissioner Kelly.

Mr. Bar-Lev, I was very interested in your proposal and I didn't get a copy of your handout. So if you could make sure afterwards -- maybe you could pass it around. If you've got an extra copy I'd appreciate that.

For whatever reason, all the papers here didn't seem to be among them.

But anyway, I wonder if I could get -- I think everybody in the California group seems to pretty much agree with the clustering concept. But I think Mr. Bar-Lev put it into a lot more detail. I'd be interested in having Mr. Smutny-Jones, Mr. Litzinger, and Mr. Mainzer comment on Mr. Bar-Lev's proposal.

MR. LITZINGER: As I understood the proposal in talking a little bit over lunch as well, it is similar to

what we are thinking about within the READY process where you're going and you're studying areas that you realize where generation is going to develop and going through and developing transmission plans in and around that. And so it's very similar to clustering.

I think we would be willing to study it more as we go through our stakeholder process.

COMMISSIONER WELLINGHOFF: Mr. Smutny-Jones?

MR. SMUTNY-JONES: Without endorsing it completely because there's undoubtedly elements that members of mine might have disagreements on, I think generally speaking it's the right approach.

The fact of the matter is if you look at the areas we're talking about while it looks really big on the map, the areas where you can commercially develop geothermal isn't a specific area, the area where you basically have areas that can commercially develop wind as a specific area, areas that you have insolation and the proper land patterns for large solar development are only in certain areas. It's basically conducive to try to bring in the areas where you know where the resources are and try to determine some sort of structure for developing that.

Actually the tiered approach that he's laying out there also is interesting from the standpoint of as projects fall off because developers determine that they don't want

to or cannot progress with those projects you may end up designing the system in smaller increments without having to go back to yet another study.

COMMISSIONER WELLINGHOFF: Mr. Mainzer.

MR. MAINZER: I wouldn't have too much more to add. Those have captured my basic sentiments.

COMMISSIONER WELLINGHOFF: Let me understand the stakeholder process in California. I think Mr. Litzinger talked about a proposal in the spring. Is there any way to get this to us quicker?

MR. PEREZ: We believe the stakeholder process, the full stakeholder process has not started yet. We're working on a select group of PTOs and the PUCs and the CUCs. We think the stakeholder process will probably start early next year and it should not take a tremendous amount of time.

If you press me for an answer I'd say some time prior to summer of '08. But if you want it sooner than that --

COMMISSIONER WELLINGHOFF: Mr. Perez, let me apologize. I was dyslexic in looking at your association.

If you could comment on Mr. Bar-Lev's proposal rather than Bonneville it might be a good thing.

MR. PEREZ: I'd be happy to.

Basically I'm going to agree with Mr. Chaset this

morning. The way we're looking at the process is a three-stage process.

Stage one, you look at all the areas to determine what those areas are capable of doing in terms of generation. You look at it at what I call the 50,000 foot level. You look at the amount of transmission that is required as a minimum to get that generation to market. Third, you take all of that and bring it into the ISO regular transmission process where things get down to the fine detail.

We're pretty much in agreement.

COMMISSIONER WELLINGHOFF: Mr. Bar-Lev.

MR. BAR-LEV: I think actually we're all going in the same direction. But I just have to emphasize that the details are everything here. For example we're all agreeing there needs to be clustering. Now the question is once the data is collected is it going to be two years for that data to be analyzed and is it going to be another year for the cost allocation to take place. Or can we condense down the time.

On the cost alone I would say when the Commission agreed or approved the third alternative proposal by the ISO half a year ago or so, I thought that was tremendous. I thought, though, that it didn't go far enough.

We should be taking the whole issue of everyone's

cost responsibility. And actually if we eliminated that because once we get the clusters then everyone is agreeing these are valuable and needed. If they're valuable and needed why are we bickering and studying exactly everyone's cost responsibility and how much incremental time will that take.

If we knew we could get the studies down to the right amount and if we could either eliminate the particular cost allocation or get into an easy formula of some time, I think that would go a long way to shortening -- to get that HOV lane built.

COMMISSIONER WELLINGHOFF: Do any of the California representatives disagree with Mr. Bar-Lev's aspect of his proposal, sort of the over-arching concept of planning from the top down rather than working from the bottom up that we appear to be doing now, turning it around that way? Is everybody agreed that's the most efficient way to work?

Mr. Perez.

MR. PEREZ: The way I look at it, it is top down. You start with what we think is the maximum amount of generation that's going to be in that area.

Usually you start by having little pieces and coming up to the largest sum. This time you started with a big piece and I'm breaking down those pieces into what's

going to be needed in transmission. It works quite well assuming that the amount of generation on there has the same certainty associated with it.

And also you have to take into account exactly what the operating dates are. Do they spread 15 years, five years? All of that will be looked at. Within those constraints I think we're fine.

COMMISSIONER WELLINGHOFF: Let me follow up on that.

Going to some of Commissioner Moeller's concerns, is there any mechanism in California that would allow for independent transmission to be built?

MR. PEREZ: Yes. We built Path 15. This is an independent path.

COMMISSIONER WELLINGHOFF: That was kind of a special case, wasn't it? In the normal course of things how is --

MR. PEREZ: Let's define 'independent' as something that you would like to build on your own and then charge people for transmission service. They can do that any time they want to if they accept the risk.

When it becomes a little different is if you want to build something and you want us to give you all the revenue back. In that particular case we have to have some assurance that we're getting some benefit.

COMMISSIONER WELLINGHOFF: Let's say it's a transmission line that's part of your plan. Is it assumed that that line will be built by the utility entity that's in the control area where that transmission is or is there some opportunity for an independent entity to build in that area as well?

Jan.

MR. SMUTNY-JONES: The point I was trying to make earlier is hopefully we haven't gone backwards.

If you went back 20 years there are several situations where developers who had contracts and were running around saying 'We can't get you transmission built,' basically came up with proposals that built out that transmission. So when I take that experience and put it in modern terms, if I'm being told -- if I'm a solar developer and I get four or five other solar developers to agree to build a transmission line, an interconnection into a transmission line, if I can't do that that's a step backwards.

I'm not sure that's what Army's saying. But if that's not allowed I think we're actually moving backwards, not forward.

By the way, in all those situations, those lines were -- ultimately the title to those lines were transferred over to utilities with one exception.

COMMISSIONER WELLINGHOFF: Mr. Litzinger, did you have a comment there?

MR. LITZINGER: The tariff is subject to interpretation.

Clearly in our company we're taking the position when there's a line proposed in the transmission expansion that we want to build it and we'll sort of take a first refusal right interpretation of the tariff, acknowledging that it's not perfectly clear. And I think that's evidenced by our four billion dollar investment plan in the next five years on the transmission that put transmission that's needed in California to meet the needs of customers and the public policy goals we would like to build. If we were electing not to or other PTOs were electing not to there was certainly the opportunity for independent transmission companies to build.

COMMISSIONER WELLINGHOFF: Under your interpretation, the tariff with the right of first refusal, as you would interpret the tariff you'd be the first one to determine whether or not you could build the line?

MR. LITZINGER: Yes.

COMMISSIONER WELLINGHOFF: Would that allow for a bidding process where entities could bid and you have the right of first refusal to match the lowest bid?

MR. LITZINGER: No. When the lines are in the

expansion plan our basic approach now has been that we've stepped up and built it.

COMMISSIONER WELLINGHOFF: Why shouldn't we build at the lowest cost?

MR. LITZINGER: We can get into discussions of ITCs. It's really a matter of risk allocation, the ITC model versus the regulated utility model. And I argue, having worked for the IPP arm of our company for ten years and understanding that model quite well on leveraging and getting an enhanced return as a result of that, I think for generation construction risk and licensing risk that's appropriate on the transmission side.

My personal opinion is that the construction risk associated with building the transmission line is fairly minimal. It's all about licensing and the process we're talking about today, getting to determine that the project is needed. And I think it would be a shame to have those higher levels of enhanced returns just reflected in the construction portion of the project.

COMMISSIONER KELLY: Thank you, Mr. Litzinger.

COMMISSIONER WELLINGHOFF: Thank you.

COMMISSIONER KELLY: We may have some time at the end if you have a question.

Commissioner Spitzer.

COMMISSIONER SPITZER: Thank you, Commissioner

You heard the discussion from BPA regarding the open season. I still have vivid recollections of pretty good wind projects failing in my home state for inadequate transmission leading to the financing failures. This is directed towards the developers.

Where the variable is transmission and you've got the other hurdles surmounted, is the precedent agreement that down the road leads to transmission going to be sufficient in the real world to get these projects financed either through independent financing or the balance sheet that goes through the corporate channels? Would that be adequate?

MR. BAR-LEV: You know, in the normal scheme of things our project is negotiated in about a year. It should take roughly a year and a half to two years to get all the permits, then takes roughly a year to a year and a half to both finance and construct. We're ready to go in four, four and a half years.

What's happening now is that transmission is becoming a 50 percent. It's a two-year delay on top of that.

I don't know whether we're going to have major financing projects. I do know that a lot of people are going to be pretty angry -- our equity owners and our lenders -- to see that we're ready to go. But the highway

simply isn't being built. That's not in the model of the open season.

I was involved in a lot of gas transmission open seasons. It actually worked pretty well. The precedent agreement was a mutual contractual obligation. The developer of the pipeline, the gas pipeline, agreed to a certain date. It was not an uncertain date. Of course they had to come to the Commission to get approval. But remember, you had federal approval so you had federal rights of way. It all actually combined pretty well.

Right now what would an open season on the transmission side actually mean if you still had to go through multi-layers of state, federal and local approvals and no one can actually promise you at the time that it's going to be built.

It would be nice to know what your cost is going to be. It would be nice to know that the transmission company or the utility is committed to building it based on the open season. But for us to not know when it's going to be built has a major impact on the financing.

COMMISSIONER SPITZER: You have the federal siting authority, and of course that's still a contingency. But what you're saying is --

MR. BAR-LEV: You don't have federal siting except under 1221 and 1222, which are the Energy Policy Act

of '05, which is not even close to what you have under the National Gas Act.

COMMISSIONER SPITZER: I'm saying on the gas side you entered into the agreement, you still have the federal siting process subsequent.

MR. BAR-LEV: Yes. But it was efficient. It was all done. My recollection is it would all be done in roughly 12 months, that permitting process.

COMMISSIONER SPITZER: What would your response be? What Mr. Bar-Lev is saying notwithstanding your best intentions, the system -- there are still contingencies outside of your control.

MR. MAINZER: That's right. It's never a slam dunk.

I think for us the precedent agreement is allowing Bonneville to secure commitments from developers to purchase transmission from us. We're actually -- and this construct is going to be the entity that would finance the line.

What we are doing is we're saying in agreement for signing this contract and in agreeing to take transmission service from us if we conclude that there is sufficient cash flow from those commitments and other collateral reliability benefits -- the key challenge for us is making sure that the terms and conditions are workable

for the developers themselves so they can take that to the bank, not necessarily for the transmission financing but to make sure that their project is viable and they can demonstrate that they're going to get access to the grid within a reasonable amount of time.

So we have been working very closely with the wind community and the resource developers to structure the deals, so to speak, so that we can work with them. We think we're getting pretty close.

COMMISSIONER SPITZER: From the corporate perspective are these precedent agreements going to be adequate?

Mr. Engelbrecht?

MR. ENGELBRECHT: As long as whatever approach is taken leads us to the end result of guaranteeing some transmission and us knowing our costs then we can push it through the corporate side if that's how we decide to finance it.

But whether it's external financing or internal balance sheet we're always looking for some sort of certainly, especially on the transmission side. A lot of that has to do with isn't are necessary facilities going to be built; if they are going to be built can I access them and at what cost is that going to run me so that I can take that into account in my economic look at the project and

sell it to the board or whoever.

My key thing is whatever approach is necessary to get us to that end state. If it's an open season approach that hurries up the process, fine, I'm all for it. If it's an open season it doesn't really get us anywhere where we aren't today anyway. It doesn't really work very well if it doesn't advance the ball.

COMMISSIONER SPITZER: What Elliott described is there were two main constraints, broad categories of projects. He was talking about aggregating customers to move the projects forward.

Is that a scenario?

MR. ENGELBRECHT: It's a scenario we would support if it can be done in a timely fashion. That's what I'm trying to put out there. If it done in a timely fashion and it leads to having some transmission certainty earlier in the same we would be in favor of that.

If for whatever reason the process doesn't yield that it doesn't really get us there.

COMMISSIONER SPITZER: Okay.

And, Jan, you describe that even a big state like California there's still a fairly small number of areas where really you need the big transmission, getting 15 or 20 customers for an open season.

MR. SMUTNY-JONES: This could work.

The point I was trying to make is that if you look at these maps that people throw around, it's a huge area that we're talking about. The areas where people are most likely to commercially develop things are knowable. Large portions of that desert you can't touch for environmental reasons or military -- or they're blowing things up there. You really wouldn't want to put your project there anyway.

I think you can I think approach this from a planning and cost perspective. I think that the sort of question that you've been asking here, the great uncertainty is once everybody agrees that, yeah, it's 'x' amount, and they're contractually obligated, how does the FERC deal with that. Is there any level of certainty that we agreed to that? Is that something you're going to be able to get recovery for?

The idea is kind of interesting and is probably worth pursuing a little further.

I think with the gas issue it may be a little clearer or cleaner because people are dealing within the gas construct and you are able to site those facilities. And by no stretch of the imagination am I suggesting that you should be siting power plants or transmission lines in California. You don't want to go there either.

(Laughter.)

MR. SMUTNY-JONES: But that I think is the distinction.

COMMISSIONER SPITZER: Finally, you have this dilemma regarding on the one hand wanting to avoid having a circumstance where the non-viable projects or the speculative projects will not be built, that -- retarding those projects -- but on the other hand the criteria that are articulated to do this weeding out need to be objective as opposed to subjective, if you had one shot -- 15 seconds -- what would you describe as the best objective basis to do this weeding out?

MR. ENGELBRECHT: I think if you did milestones based on items like site control and are you moving ahead in the permitting process on your facility, are you moving ahead on the interconnect process. When you site something there's a lot of money being spent in permitting. That shows me that it's a project that's moving ahead and not just a phantom project.

MR. BAR-LEV: I'm not prepared to list all the criteria. I do think that the idea of having serious earnest money at various stages along the way is an excellent way of weeding out projects that are real from unreal.

MR. SMUTNY-JONES: It's money and milestones that matter. You start out basically if you want to play this

game you need a max amount and you're going to lose it if you don't meet these milestones. And there are things like site control, have you signed your PPA, are you doing your environmental work?

As I said earlier, you may have run into situations where people trigger an event where they've missed a milestone. So the question is why did they do that. Obviously the manager of that milestone protocol needs to be able to determine that he missed that mark because they weren't diligent in terms of pursuing their permits or there were various circumstances beyond their control.

COMMISSIONER SPITZER: That gets into subjectivity, though.

MR. SMUTNY-JONES: It may not. They may get into a situation where all of a sudden the United States Air Force decided to have a radar program. All my guys have that now. That was something no one saw coming. And they said, okay, you need another six months. But if they hadn't applied yet I think they lose their money and they're out.

COMMISSIONER SPITZER: I've got the hook.

COMMISSIONER KELLY: You saw it coming.

(Laughter.)

COMMISSIONER SPITZER: Thank you.

COMMISSIONER MOELLER: Thank you, Commissioner.

First, Mr. Perez, I want to thank the ISO for hosting me a week ago. It's too bad that Commissioner Wellinghoff's not here. We spoke about not only integrating wind resources into the grid but the role of demand response to back them up. That was a good day. Thank you.

Moving to my native Northwest, Elliott, thanks for being out here. Can you talk a little more specifically how, say, a developer, if we want to be hypothetical, what kind of commitment do they make? What skin is in their game? When they agree to take service when Bonneville is ready to give it, what's the significance of that?

MR. MAINZER: They start out with an up-front deposit. There's sort of an ante just to be part of the cluster. It's equivalent to one year's worth of your transmission service.

What they're basically agreeing to is to actually take transmission service. In its purest form what they're doing is they're giving Bonneville sort of a put option to actually sell them transmission service once we meet our obligations. So once we are able to conduct that study, make a determination whether we can offer transmission service at embedded cost and complete the environmental work, they are obligated to take transmission service from us. So they go back to their board and say, 'We just signed up for 10, 15, 20 years point to point transmission from

Point A to Point B.' That's a binding obligation.

COMMISSIONER MOELLER: If they would fail to take service could they resell it?

MR. MAINZER: Yes. If they take service they can certainly remarket that.

We're also working -- we had some concerns amongst some of the members of the IPP committee that they wanted there to be some fungibility of that transfer. They say, 'Hey, if I'm signing up for 10 or 15 years of transmission service agreement I want to know that I'm not aligning myself up with a stranded investment.' So we are allowing them some redirect flexibility for their longer-term transmission requests. We're agreeing to notify them if we see changes to the ATC methodologies which might take the transmission service away.

Ultimately they can remarket the transmission. We're trying to work those into the equation.

COMMISSIONER MOELLER: I'm trying to think in my mind. What's the incentive or is there a lack of incentive for them to follow through? But if there's value there that's fungible presumably you've moved the ball forward for everybody.

I'm a little fuzzy on the timing. Can you repeat it, when you think this is going to be fully mature?

MR. MAINZER: We are aiming to complete all of

the terms and conditions of the precedent agreement probably by the end of February.

The big thing is this is a new concept for the Pacific Northwest. We have a lot of people who have sort of poured their hearts and souls into this and really want this to move as quickly as possible and putting a little bit of a governor on it to make sure that we do it right. It's absolutely essential that when we go out -- we're doing a lot of outreach to the customers.

But I would say February-March of 2008 we hope will be open season. There will be a sixty-day window for the open season for people to choose whether or not to participate. Then we go into the actual cluster study process itself, and 90 to 100 days on that, and it's off to the races once we get the cluster study results in.

COMMISSIONER MOELLER: I commend all the people working on it with the hope that you can really meet those timelines.

MR. MAINZER: Thank you. We're going to need a good tail wind on that.

COMMISSIONER MOELLER: From what I'm hearing back home there's a lot of optimism.

My next set of questions is for anybody to comment on. And it goes back to our last panel, particularly Mr. Zadlo talked about -- to kind of paraphrase

him -- the fact that it all kind of depends on whether a transmission owner either has the adequate resources kind of the necessary process to streamline applications and whether there's proper accountability. Sometimes that just goes down to individuals, whether they've got those characteristics, if they want to make it happen or not. Maybe sometimes it's not in the interest of the transmission owner to facilitate interconnection.

But I guess I'd like your reactions to that kind of overall concept.

Mr. Bar-Lev, you want to start off?

MR. BAR-LEV: I do think FERC has got a couple of components of jurisdiction that are important here. There's no reason why FERC cannot be inviting submissions of rate cases with revenue requirements that embody big chunks of transmission and with incentive rates if those transmission projects are done on time and disincentives if they're not done on time. That is I think one of the weaknesses in the present interconnection system.

If you look at the interconnection agreement there is very little. The milestones are not meaningful. They may be there. I'm talking about the ISO, on the study side, and on the IOU side. They're there but they're not in force.

This system I think could be much more

transparent and much more enforced. It could be enforced through your rate system. I don't favor going to third parties, independent transmission companies if they're not needed.

But somewhere along the way you should ask the question: Is this project going to be built on time. If you can't build it by a certain date, why not? Can you subcontract? Is there someone else who can do it whether it's for the ISO's study part or the construction part? The question should at least be asked.

COMMISSIONER MOELLER: When you say 'project,' do you mean construction or transmission?

MR. BAR-LEV: All the way from the study to the permitting to the construction.

MR. ENGELBRECHT: At least within California I've got to believe that three California utilities will basically do the three studies on behalf of the ISO. My understanding is that the ISO directs those studies. All three utilities have competent transmission planners to do the work.

The biggest problem -- again Army related to this in his speech -- there's been such an overload of requests that it's almost an impossible task. It's a 7/24 and more job to get these done right. If we can go into more of a clustering approach in a tiered fashion -- whether you tier

up or tier down it doesn't really matter -- but that should help tremendously reduce the number of studies that are required.

One of the big problems is the studies that have been done in the past keep restudying it every time someone drops out of the mix. If you do it in a cluster tiered approach you won't have to restudy much at all. That's going to help tremendously. I think that's the main solution.

COMMISSIONER MOELLER: You're staying on message. Good work.

(Laughter.)

COMMISSIONER MOELLER: Mr. Litzinger.

MR. LITZINGER: With regard to resources there is a challenge in our industry getting adequate resources, engineering resources especially, power system planners. The irony here at least within California is power system planners have a tendency to bounce around between ourselves, the other PTOs, the ISO and the consultants that we're subcontracting the work out to depending on who's paying the most. But it's a fixed number. We've got to address it as a more basic issue.

What we're doing at least as a company is supporting universities, re-establishing their power engineering programs and the like.

The other approach we've taken on the resource issue is what I described to you earlier. It's really about the senior more seasoned engineers that can do this planning work fast. That's what we all want.

We are taking our time going with more entry-level planners and seem to be having some more success with that. That was my main point on resources.

With regard to streamlining, I think all of us are interested in streamlining sort of the interconnection study process that we've been talking about today. Once we get through that and define the need of the project the California Public Utilities Commission has taken on an initiative in the last couple of years. And I truly believe that the final segments of Tehachapi, segments four through eleven, will get through that CPCN process within the 18-month period. I think we're making progress on both of those fronts.

And accountability, I certainly understand the point. We should meet our commitments as a company. We've got to go out and not make excuses and get the resources we need.

COMMISSIONER MOELLER: I'm hoping some day we'll have this debate over ocean resources as well.

But, Jan, any last thoughts?

MR. SMUTNY-JONES: I don't think I have anything

to say on this.

MR. PEREZ: One quick comment if you'll allow me.

I will agree with Ron that the issue of engineers has become a real huge issue for everybody. We actually have taken the step of starting our own academy at the ISO where we are actually teaching power system engineering classes. They're usually master level type of classes.

And before I run out of time, I didn't quite have enough time to finish my speech at the beginning. But there are some proposals in here about how to go forward and those will be given to you as part of a package and you can read those at that time.

COMMISSIONER MOELLER: Thank you, Commissioner.

COMMISSIONER KELLY: Mr. Perez, I was going to ask you for the end of your speech. If you have two minutes and you can give us a few more points that would be helpful.

MR. PEREZ: Thank you very much.

I talked a little bit about the clustering. Where I left is clustering without further queue reforms will not by itself effectively address the fundamental problem of reducing the unrealistic level of requests and capacity seeking interconnect.

A second set of reforms must adjust the current approach by requiring greater developer commitment. There are many potential permutations of such adjustments that the

Commission should consider. The CAISO believes several adjustments will likely be necessary at various stages of the process.

For example, the Commission should consider increasing the financial commitment of interconnection customers at each stage of the study process as well as the acceleration of the requirement to establish site control. Site control should not be an alternative to security deposits but rather an additional mandatory requirement at an early and appropriate stage of the process. Further, the Commission should consider added financial consequences to those people that delay or withdraw projects.

Interconnection customers who withdraw during the study stage could be required to pay for the costs of any necessary restudies by means of their prior deposits Interconnection customers with executed LGIAs may be precluded from suspending the project for a period of as long as three years or, if that period is maintained, specifying that a request to delay the commercial online date exposes the interconnection customer to funding responsibility for upgrade costs necessary to prevent harm to other resources caused by the suspension requests.

Third, a point which is more of a departure from past practice, the Commission should consider allowing ISOs and RTOs greater flexibility in establishing up front,

clearly defined criteria to prioritize study efforts.

While the ISO has not fully evaluated any particular set of criteria with the stakeholders, it may be that factors such as RPS requirements, results of requests for offers, resources of existing power purchase agreements, interconnection in specific regions with prior transmission upgrades, or other state initiatives may serve to increase the efficiency and efficacy of the study outcomes and the certain to project developers. The creation of priorities in the study process must clearly be weighed against open-access principles as they have been traditionally implemented.

MR. PEREZ: Our experience is that this does not provide sufficient flexibility for ISOs and RTOs.

COMMISSIONER KELLY: Thank you very much. I appreciate that. Does anybody disagree with any of those points?

(No response.)

COMMISSIONER KELLY: Thank you. Mr. Mainzer, when I think of Bonneville's proposal, particularly focusing on the fact that you can offer and generators can accept binding precedent agreements, the way I figure it is that you can do it because you are going to finance the transmission.

Am I thinking of it correctly or shall I think of it differently? Is that what allows binding precedent agreements to be signed?

MR. MAINZER: I think it's a big part of the construct. I think the idea is there's probably alternative ways you can focus on it.

But we've chosen -- we tried sort of a mini-version of open season back in 2004-2005, targeting a single line of a system where we expected the generators to come to the table with the financing, and we got into all the classic circularities of that. It really just flopped.

We also recognized that looking at this on a single line on a system basis doesn't really make sense,

because it's a network, and you have a complicated set of constraints.

So really those two things do sort of fit together. You're putting that precedent agreement and saying are you expecting people to commit to the transmission capacity.

Arguably, you could also bring that to the table, and you could also require an up-front financing obligation at the same time. Those two things, I guess, could work together. But I guess they'd be a little bit redundant.

COMMISSIONER KELLY: If I could ask, if you required an up-front financing obligation, wouldn't they have know what they're financing?

MR. MAINZER: Yes.

COMMISSIONER KELLY: Isn't that difficult, because it hasn't been decided yet?

MR. MAINZER: That's right. I think that's what the SPP guys have gone down that path. It's a lot more complicated. You get into much, much more difficult aspects of cost allocation, incremental cost rates, etcetera.

The costs that we put on the table, we really come to the table with a plan of service. Their cost is really our existing point to point transmission rate. It's a much easier construct.

COMMISSIONER KELLY: Would California, with the

IOUs, be willing to take that approach in a sense? Didn't you do that with Tehachapi?

MR. LITZINGER: With Tehachapi, we analyzed sort of our development risk, and concluded that was not likely the case, or very small. And as such, with 39925 backup, recovery with the PUC a key factor, we elected to go ahead an up-front fund.

We are, as I mentioned earlier, interested in building the transmission required. Our long-term financial plans envision that, you know,

You can't go hog wild and foresee into the future and look at cash flow dips and financing arrangements and stuff that we'd have to look at. So we'd want to maintain that flexibility on a case by case basis.

COMMISSIONER KELLY: But you were willing to consider it potentially on like to a geothermal area, or something that's analogous to the Tehachapi situation?

MR. LITZINGER: Clearly, we have another situation where we look at our development risk and see it is minimized or adequately compensated, I think would be a better way to phrase it. Then we would absolutely consider forward funding.

COMMISSIONER KELLY: Thank you. Staff?

MR. KELLY: Mr. Desmorais, the main message from most people today seems to be that the system is broken and

we've got to fix it. I heard your message, that if ain't broken, don't fix it.

I wanted to focus on the don't fix it part, because you seem to suggest that you may have had bad experiences or anticipate bad experiences with clustering in open season. I wanted to hear more about what the pitfalls might be of those approaches.

MR. DESMORAIS: Sure. I think they're the things people have alluded to already. We've never done a formal cluster. Certainly, we've looked at it kind of informally, where we have a group of generators in the same region, studying their interconnection requests at the same time.

The problem we've run into is the classic, always had one of them drop out or were revisiting it. So we missed time lines that were supposed to deliver steady results in an open season again.

It's the classic. There's good and bad with both of them, and the challenge of the open season is getting customers to make commitments. So people are in for as long as they can be, until there's time to make a financial commitment. Then they don't make that commitment.

MR. KELLY: For many of the speakers today, the idea of having to do restudies sounds like it causes enormous delay and protracted schedules.

I think I heard you say well sure, you have to

restudy. You do another run. Almost a few hours later you've got it done and you move right along.

And it's stressful, but actually you've met all your deadlines. Could you elaborate on the difficulties of successfully dealing with the restudy?

MR. DESMORAIS: Again, we're here today primarily to address interconnection requests possibly. Our service territory goes from Oregon to the far side of Wyoming. So I don't often have a bunch of interconnect requests right next to each other.

I do have a couple of places in Wyoming now. I have a number of wind requests adjacent to each other. I haven't had to do a lot of restudies. Certainly, I would never state that a restudy takes only a couple of hours.

Somebody alluded to that earlier, so maybe the planner's portion of it takes them a couple of hours to run or re-run their model. But then it has to cascade through all the other engineering disciplines.

We haven't had to do a lot of restudies yet, and again I think it's partially because of our geographically diverse territory, and also because we've been studying projects independently.

There's also a lot of concern about which projects are real or not. We simply go by queue order. If they're in the queue or ahead of you, we assume it exists.

Again, in the interconnection world, it doesn't have a lot of impact. In the transmission service request world, it's more of an impact. But when the projects in my queue are geographically diverse, somebody dropping on Oregon clearly doesn't affect someone in Wyoming.

MR. KELLY: Thank you.

COMMISSIONER KELLY: Thank you. Mr. Perez, one thing I wanted to add. Mr. Wellinghoff mentioned that filing sooner rather than later would please him. I'd just like to add that it would certainly please me too if you can meet an earlier time line than June. We would appreciate that.

MR. PEREZ: It would certainly please me too, and it was the subject that I approached with the back row here at lunch time. We will do our utmost.

COMMISSIONER KELLY: Thank you. Yes?

MS. SMUTNY-JONES: In that light, I would also like to say that this conference, by the way, is a very helpful thing from the perspective of my members. This is very positive.

Over the years, things have gotten a lot better for the IPP industry with respect to interconnection, in getting access to transmission. Twenty years ago you couldn't do it, because it was magic and we've come a long way since then.

But I would encourage you to stay on top of this because there are a lot of thorny issues here that frankly nobody at this table actually can fix. Ultimately, this dead cat will end up on your porch at some point in time.

(Laughter.)

MS. SMUTNY-JONES: You're at lEast knowing it's coming could be helpful, and perhaps you could offer us some guidance as we're getting involved in these various stakeholder processes that could go on forever, unless there is some sort of real time limit to get it done.

In light of the fact that you're encouraging the ISO to file a ruling, hopefully not often but at lEast file early, we would (a) support that and (b) ask that the FERC actually continue to be engaged in this, by having staff out, and if we're getting too far off track, maybe kind of remind us that we've got a clock running.

COMMISSIONER KELLY: Thank you.

MR. BAR-LEV: Just to build on that point, one of the things that we believe could really help here is by having some sort of an inter-agency regular meeting with you, the CPUC, the ISO, the Energy Commission, I don't know who else, to see how we're doing on clearing the queue, and on fixing the queue in the long run.

Because as I show in this chart that's before you, this is a very complicated process and it's quite

different actually than the Bonneville situation, where they essentially embody four or five of the agencies and companies that we have in California. We need your help.

COMMISSIONER KELLY: Thank you very much, and Mr. Palmer, who heads up the EIS group, we asked him about his experience in dealing with dead cats. He actually has quite a bit of experience.

(Laughter.)

COMMISSIONER KELLY: We're going to start the next panel. Shannon, just a homework assignment if I could for Jan. You mentioned the milestone concept.

A lot of experience has been gained in the QF industry. If you could sort of lay out what those milestones were, and if there were ideas around sort of when earnest money was triggered, I think that would be a useful document for the Commission and could really sort of supplement.

MS. SMUTNY-JONES: We can put that together, and also tell you what worked and what didn't. I don't want this to sound like it all works just wonderfully. There were some problems with it, but at any rate, we've been down this road before.

MR. CANNON: The annotated version, thanks.

COMMISSIONER KELLY: Thank you all very much.

(Recess.)

COMMISSIONER KELLY: We will continue the conference. Now we're going to address improving queue management in the East.

We have with us today Steven Herling, Vice President for Planning, PJM Interconnection; Stephen Rourke, Vice President, System Planning, ISO New England; Sean Finnerty, Senior Vice President, Wind Development Competitive Power Ventures; Mack Thompson, Vice President Power Supply Services, American Municipal Power of Ohio; and Angela O'Connor, President, New England Power Generators Association.

Angie, I know we've talked about ponytails and big boy pants, so I'm glad that there's some Chanel in the group now. It's nice to have you. Another staff member joined us. Rahim Amerkale, who's left my staff to join Ray.

Rahim was not here, because he was at the swearing in of his wife, Jennifer Amerkale, also a very highly regarded member of FERC, who just became a member of the Maryland Bar. A hand to Jennifer.

(Applause.)

COMMISSIONER KELLY: Thank you. Mr. Herling, would you like to start?

MR. HERLING: Good afternoon. We disseminated this very colorful paper earlier today. There's a lot of factual information in there. I'll highlight bits of it and

then move on to some of the things we've talked about earlier today.

There are a number of moving parts here that basically are resulting in the kinds of problems we're seeing in the queue. Two specific ones, I think, at lEast within PJM. One is the queue volume.

I tried to rough out. If you look at the time periods, roughly 2003 and 2004 to 2005 and 2006, our queue volumes went up by about 120 percent.

If you look at what we've seen so far in 2007, what we expected to see through January of 2008, compared back to 2003 and 2004, it would have gone up somewhere between two and three hundred percent in queue volumes.

So the sheer number of studies is really crushing us, and you can work through that in a lot of ways. You could work with resources, you could work with tools and you could work with process, and we're trying to do all of those.

But one of the things we have had the most trouble with is every so often, and we've seen this from the very first queue in '99 and 2000, until what we're dealing with right now, we get these very, very large scale projects that have proposed, you know, hundreds of millions of dollars in network upgrades on the system.

Those studies individually take a tremendous

amount of time to complete, and they back up everybody behind them. If you're behind a project that's hitting 150 facilities, violations of 150 facilities, any study I do for the second guy without all those upgrades is completely meaningless.

To provide a study of that situation, there would be no certainty whatsoever to those results. We've seen that in the East, we've seen that in the West. It's really bogging us down and we're trying to find ways to deal with it.

But that and the volume are the two biggest issues. One of the points I make in our material is in PJM, this is not a wind issue. This is a generation issue. We have a lot of wind, but we have more than everything else combined.

Partly why it's a wind issue I think is the timing issues that wind faces with respect to the tax credits. We've dealt with this, going again all the way back to 2000 and since, where projects get in the queue, they are racing the clock to get in service before a tax credit is eliminated.

They get to a point in time where they drop out of the queue; six months later, the tax credit is renewed and they get right back into the queue and then we've dealt with that over and over and we're facing it now, with

generators that are concerned that they will not be in service by December 2008.

Jumping down, to some of the solution issues, there are a lot of things this morning, a lot of milestone possibilities that would certainly help. PJM needs to do a better job of getting a study done, but we need to impose a little bit more discipline on the process.

Some of that could be through some better milestones. The comments that were made before, we've got to get the good projects moving forward. That means we have to get rid of some of the projects that are just never going to happen.

If we could figure out what the right combination of milestones is, that would make a big step forward. Some of that could be based on just more money. Some of it has to be based on getting timely data to us, where the tariff is very vague,
for example, and there are some other issues there.

One of the bigger problems. We've developed a lot of analytical tools in the last year, but the multiple points of interconnections that are allowed in the tariff just kill our analytical procedures.

Because you work your way through, and you get to a generator that has two points of interconnection and now you have two sets of results behind them. There's a

generator with two, so now you have four.

All it takes is five or ten of those, and instead of having 100 studies you have 1,000 studies. So that's an issue, and there may be compensating things that we need to do, like maybe ease up on the material impact threshold if you change your point of interconnection.

But that would make a huge difference in our queue. I don't know about anybody else's. The whole concept of taking certain groups of generators out of the queue and doing them separately is an admirable thought, but I don't know who made the comment before about efficiency versus fairness.

But how do you balance the rights that somebody else had, and now you have moved a bunch of projects ahead because they're a new renewable or because they're wind or because whatever your category or criteria might be.

There's a number of other points. I'll save them for the Q and A.

COMMISSIONER KELLY: Thank you very much. Mr. Rourke?

MR. ROURKE: Thank you very much. Thank you for the chance to be here. Actually, I'm very pleased to be able to follow Anne George, whom all of you heard on the first panel, who was able to tell much of the New England story.

So let me dive right into some of the details. As you just heard from PJM, and you certainly heard from the Midwest ISO and the Cal ISO and others on the West coast, our queue over the last year and a half or two is not unlike theirs.

We've seen some dramatic growth. You think about roughly a year and a half ago there were maybe 40 units in our queue, 40 generators coming forward. There are now 95.

We've added three more in the last two weeks. Size-wise, we are not the same as them, nor as we the same in terms of technology types. On the renewable side of things, we do have some wind, a little bit of biomass, landfill gas and some small hydro.

But the magnitude of the wind in the NorthEast, at lEast so far, is certainly much smaller than sort of the staggering amounts that you heard earlier today. We may be a little staggering on the natural gas side of things. They're certainly way more staggering on wind.

We're seeing the influx really driven by two waves. Anne spoke of the new markets that are in place. The ISO's going to be running its first auction by capacity that's needed, beginning in the year 2010 going forward, with the first auction for forward capacity that we're running early next year.

We have just gone through the last six to eight

months. Very new steps we're faced with, of not only getting generators to move through the queue, but also to qualify new resources, both the demand side of the equation and lots of new demand resources that came forward for that first auction.

But we also ended up with 35 new generators that have been qualified for that first auction. Going through that work, and as we have units moving through the queue at the same time, they're moving through getting qualified for the auction, we're starting to see where the two paths are starting, in part to converge with each other, in part to conflict with each other.

On the FCM side of things, given the short time frames, we've had to do the study work. We've been able to actually put some new software tools in place to expedite those studies, that we actually hope to transition over, to begin to expedite some of the studies we have.

For moving generators through the queue, we have also found that we're doing in some areas two kinds of work. You think of two sets of scoping meetings being held, one for the markets, one for the queue; two series of transmission analysis studies getting done, one for the market, one for the queue.

We have formed a large stakeholder group. As Anne said, we have met for five full days now. Our goal is

to work through the issues we're faced with, with the tariff and with the markets, and hopefully make a filing on both of those issues by October of next year.

We are very pleased to hear from you before lunch, not to expect any rulemaking on this in 2008, that would actually leave our space a bit free for us to continue this work going forward. Because the same folk that would respond to a new order are the same folks doing this work. So thank you for that.

As Steve said and you've heard from others, we've had to beef up our staff as well. We've added folks both on the business side of getting generators moved through the queue, just to process the agreements, the invoices. Key contractors are on the staff going forward.

But we've also had to add to the engineering staff at the ISO. We too have started to reach out to universities in the area, sponsoring a grad power class right at the ISO for our existing staff.

So we're faced with many of the same challenges you've already heard, and I look forward to talking more during the question and answer session.

COMMISSIONER KELLY: Thank you very much, Mr. Rourke.

MR. FINNERTY: Thank you for inviting me to speak today. Competitive Power Ventures develops both wind power

and natural gas fire generation nationwide. My comments today, while focused on wind power generation, are also applicable to other forms of generation, and represent the position of Competitive Power Ventures.

I think the panelists today have done a very good job of specifying the two main reasons for significant queue backlogs. First, the transmission provider study projects in the queue one by one instead of simultaneously. Delays caused by waiting your turn for studies are exacerbated when projects drop out of the queue, and the transmission providers return to go and start the study process all over again.

The second reason for queue delays is that many developers submit multiple applications for potential projects that are in the early stages of exploration, instead of waiting until they have a serious project under development.

These phantom projects inflate the size of the queue and increase potential for projects to drop out of the process after the studies are completed.

I want to follow up on comments made by Rob Gramlich this morning. Significant queue backlogs are the direct result of the FERC pricing policies, which tag the cost of transmission upgrades on the first group of new capacity that crosses the line between service for new

facilities and service that will require system upgrades.

I believe at the time the Commission's policies were evolving. The Commission expected that each transmission provider would be managing fairly limited queues, with at most a few projects under consideration at one time.

However, the recent restart of the generation development period, particularly for renewables, has proven that policies that were expected to support competition have now become a key impediment to competitive development.

Clearly, the Commission must engage in a fundamental reform of its pricing policies, to avoid the need to tag specific projects with the cost of transmission expansions, and to remove incentives for phantom project applications.

There are two simple means to accomplish this. Allowing rolling upgrades to the transmission system across all users and cluster the study of projects.

While the Commission has rejected rolling in favor of transmission credits or awarding transmission rights, problems created by the current pricing policy are dire enough to merit a closer examination of rolling pricing.

Rolling can perhaps be coupled with a significant one-time up-front allocation of costs to generators.

Requiring substantial up-front payment can lead to less queue squatting, further reducing the need for the first-come first-serve study process.

USRs may help but are only part of the solution, because there's still the iterative study process. Projects, particularly phantom projects, drop from clusters after burning the upgrades that will be allocated to them.

The developer will then fare no better if its project is stalled in a cluster instead of stalled onto the current study process. There is no one size fits all solution. What may work in PJM may not work on a system that consists of a single vertically integrated utility.

However, there are some common elements that could be incorporated into the interconnect policy after the new interconnect policy. The Commission should move to integrate up-front costs.

If the Commission concludes that there must be an up-front cost allocation to a project, earlier and more certain information on the cost is imperative. The Commission can reduce the occurrence of phantom projects by increasing the deposits or milestone requirements to further ensure that only serious projects apply.

The Commission should also increase the reliance on the cluster processing of interconnection requests. Proper design and moving away from the interim study project

is essential to the success of this.

Finally, the Commission must assure the adequate staffing resources to the transmission providers in the RTO. They should ensure compliance with the study process time lines. CPV anticipates filing written comments, which will include some specific proposals subsequent to this hearing.

Again, I thank you for allowing me to speak today, and look forward to your questions.

COMMISSIONER KELLY: Thank you, Mr. Finnerty. Mr. Thompson?

MR. THOMPSON: Thank you for allowing me to speak today on behalf of the roughly two million citizens on whose behalf AMP-Ohio works. AMP-Ohio is a non-profit organization that purchases power from a variety of sources and develops and manages generating projects on behalf of its municipal electric system members, thus enabling them to meet the electric supply needs of their citizens.

We have 123 such members in Michigan, Ohio, Pennsylvania, Virginia, West Virginia and Kentucky. Because of this footprint, AMP-Ohio operates in both the Midwest ISO and in PJM.

AMP-Ohio is in the thick of the generation interconnection queue process. We currently have five wholly-owned projects in the queue.

The proposed projects include a 1,000-megawatt

coal-fired plant in Southern Ohio, which must connect to PJM, three FERC-licensed hydroelectric projects totaling 191 megawatts located on the Ohio River, two of which must connect to MISO and a third which must connect to PJM. We also have a five megawatt wind generation project that must connect to PJM.

Initially, AMP-Ohio was a participant in a 1,600 megawatt peri-state energy campus currently under construction in Southern Illinois, which must connect with MISO.

We continue to evaluate other potential generation projects as needed, to meet the power supply needs by our members, including those brought to us by the developers of small renewable resources, such as wind, biomass and landfill gas.

Based on the feedback we received from these developers, they are experiencing interconnection problems similar to those that I will discuss here.

With respect to the queue problems, first of all the process is slow. A prime example is the 1,000 megawatt coal-fired plant we're developing in Southern Ohio. In January 2006, AMP-Ohio submitted a generation interconnection request for the proposed plant, to interconnect with PJM.

The feasibility study took about five months,

which is three months longer than allowed for under the tariff, and the system impact sent it into ten months, six months longer than allowed.

My second example is a five megawatt wind project. On July 29, 2005, AMP-Ohio submitted a request to interconnect this project at 23 KV within the PJM system. The study took 14 months instead of three allowed under the tariff. The system impact study report took more than 12 months, instead of the four months allowed.

In addition to being slow, the process is inflexible. We would like to be able to collaborate with our suppliers, to develop the best approach on a joint basis. We'd like to be able to take advantage of experience by obtaining the advice on long-term courses of action.

Currently, the interconnection and transmission study personnel appear worried that they will be accused of providing market advice to the interconnection customer. So such collaboration is minimal or non-existent.

If this rigidity stems from attempts to ensure fairness, we'd like to see proposals from the RTOs to better balance fairness with the practical realities of project development.

The process also does not provide reasonable cost certainty. We are nearly two years into the process, and we still don't know what it's going to cost our members to

connect the 1,000 megawatt coal plant to the grid.

Not only has significant time passed, but our costs is still dependent the fate of other projects in the queues, some of which when submitted have planned in-service dates earlier than ours, but have since been postponed to in-service dates after ours.

Even if we had a completed facility study in the end, which we do not, it would only provide a good faith estimate, not a firm price quote.

Furthermore, even after the necessary upgrades are identified, we agree to pay for them and we proceed with plant construction. There's a risk that the upgrades will not be in service by the agreed-upon date.

This risk is applicable to both generator and connection-related upgrades, and any upgrades needed to assure delivery of costs to MISO-PJM. If a new transmission line of any appreciable length is required, the perceived risk goes up dramatically.

This is one of the reasons why certainty is important. We want to weed out risky options earlier in the process. One other point should be made about the interconnection process.

In addition to a generator interconnection, AMP-Ohio needs transmission paths across the MISO-PJM scheme in order to serve our geographically diverse membership.

We must obtain through and out service from the RTO where the generator is located, and transmission service on the other RTO where the municipal member's load is located.

These multiple RTO requests generate additional system studies beyond those associated with the interconnection request. Each of these requests has its own time line, and it's not coordinated with the other requests.

It's difficult for AMP-Ohio to propose solutions to the problems that we have identified. We have not managed, the process, the resources or pools devoted to the process. We appreciate the Commission's decision to examine the interconnection queuing issue, and we appreciate the review which is underway within the MISO and PJM stakeholder processes.

Based on our experience, these efforts must not be allowed to die out without producing tangible results. We encourage the Commission to monitor the progress on the issue. Thank you very much.

COMMISSIONER KELLY: Thank you, Mr. Thompson. Ms. O'Connor.

MS. O'CONNOR: I'd like to think you saved the best for last, commissioner. Thank you for asking us to come before you, to talk about this important issue for you today.

You've pretty much heard it all. You've heard from my colleague, Anne George this morning. My colleague Steve Rourke outlined where we are in the process in New England.

I'd like to focus my comments in the area of the long-stand stakeholder process we've had in New England. To the extent possible, we have used this process to reach consensus among a number of different parties.

I think the Commission is well aware of that. This process over the years has met with considerable success, given the diverse interests that we do have at the table. The Interconnection Working Group is an example of that process.

I'd like to highlight the fact that we have, and I didn't even know this was frankly a word until we did this, but the working group is time-shared and George represents six states as the NEPOOL representative; representing all those diverse interests is Bob Stein. Then we have Steve representing the ISO.

That speaks volumes to our efforts in New England on the collaborative process. I can assure that during our robust discussions, that all interests are well-represented.

The questions the Commission has posed in this technical conference is really a fascinating opportunity to sit here and listen to what's going on across the country.

They're the very questions that we're trying to address in our working group.

Please be assured this is not an open-ended discussion. We did start this process. We are planning on filing in October of 2008, a filing with the Commission. I want to assure you that the schedule, it was developed by consensus what the schedule would look like.

As for our process, Steve alluded to it a little bit, but we've broken it down into three phrases. The first phase is information-sharing, which I was told is the politically correct word to describe education. So I'll stick with the information-sharing in the first phase.

We are now into the identification process. As Steve mentioned, I'm going through and trying to identify areas where there is consensus, and areas where there is not consensus. Many areas of consensus are pretty obvious, but as discussions become more substantive, additional concerns become evident and we identify them and we list them for future meetings.

Realistically, some of these issues may not be resolved in our process, but New England stakeholders, including my company from the New England Power Generators Association, are committed to this process, and we will resolve many of the issues that will improve the interconnection process.

In New England, to assure that it functions acceptably with the forward-capacity market, here's the best part. The benefit to the Commission of the New England process is that the issues that we are unable to resolve throughout this process that you inevitably will be asked to decide upon will be much more narrow, more clear and more well-defined.

The final phase of the process will be the resulting of the tariff language filed with the Commission in October on the issues that we do reach consensus, and if necessary, define issues for resolution by the Commission.

To the extent that changes are made to this process, given that we're just now heading into the second phase, as I mentioned earlier, how extensive these changes will be or what they will look like is still pretty unclear.

We appreciate the technical session and any resulting questions that come out of this session that we may need to ask in the scope of our discussion, and try to integrate the interconnection queue process with the SCM in New England.

At the risk of never being invited to come back here again, I'd like to extend an invitation to members of the Commission or their staff to join us in some of these stakeholder meetings. Kevin Huler, Commissioner Kelly, who I know is on your staff, is well-versed in our process in

New England, and has survived and lived to tell the story another day.

So I encourage the Commission, if they're interested, to come, sit in and perhaps participate in this process.

In closing, my purpose here today is pretty simple. It's to deliver the message that we will work together in New England collaboratively in our unique process, to resolve our challenges regionally. I guess I'm here to just ask the Commission to give us the opportunity to do that.

Thank you again for the chance to come here and see you today, and review this whole process. Thank you.

COMMISSIONER KELLY: Thank you very much. Commissioner Spitzer? Commissioner Moeller, would you like to start off the questioning?

COMMISSIONER SPITZER: Sure. Thank you. It seems to me the issues are different than what we've heard in the three prior panels. You don't have the proliferation of wind, the locational issues. You've got a lot of natural gas that fits the paradigm.

Nevertheless, you do seem -- Mr. Thompson, you expressed some frustration, as well as Mr. Finnerty.

To what extent can this open season proposal, which does require the financial commitment, might achieve

the effect of we being out non-viable projects, and give entities that are financing, particularly with private development, some comfort that the transmission will be there? How applicable is the PPA proposal to your circumstances?

MR. FINNERTY: We at Competitive Power Ventures are going to go back and digest the specific BPA proposal before commenting on that. But I think any change that reduces the number of what we call phantom projects in the queue and gets the logjam cleared up is good, whether that's increasing the deposits or the milestones that are required to proceed through the process.

As for cost certainty on upgrades, anything that gives us earlier information and more certain information on the cost of what our upgrades would be for a specific project, anything to improve that certainty allows us to move forward into financing, in a much better position than having that uncertainty hang out for a long period of time.

If the RTO came back and said your upgrades are X, and there was uncertainty as to whether the actual upgrades ended up higher or lower, that would give us a data point to move forward into financing very comfortably.

COMMISSIONER SPITZER: I don't want to cause anyone to offend their local government. But is the state-siting process among the variables the most problematic as

opposed to cost from a perspective of looking for certainty?

Which you said, it seems to me, hanging out waiting five years for a permit would even be more vexatious than determining the dollar amount.

MR. FINNERTY: In an instrument where a permit was still outstanding yes, that would be a tremendous amount of uncertainty. Wind projects, however, the permitting process is relatively short, relatively straightforward. That generally does not become a piecing item. A piecing item is generally a transmission interconnection process.

COMMISSIONER SPITZER: Then I guess the last issue on that scenario would be the milestones, how would you describe some of -- to some of the prior panelists, this dilemma? You want to be efficient, but obviously efficiency would be greatly enhanced if the big guys get everything they want?

That leaves off the fairness side to independent producers, or some of the small ones who are financing outside of their balance sheets. I guess for all of you, how do you resolve, in terms of coming up with objective criteria, that balanced efficiency and fairness, starting with maybe PJM?

MR. HERLING: I think the biggest problem that we see when you look at some of these larger-scale projects, obviously we would love to be able to turn out a feasibility

study in 60 days.

But if somebody dumps 2,500 megawatts into Northern Illinois as a point injection, the likelihood of being able to identify the transmission to satisfy that in 60 days is zero.

We're talking about problems on multiple transmission facilities, and areas where solution opportunities may be few and far between. So you've got a lot of engineering to do to come up with viable solutions.

If you take those kind of projects and then start weighing them against loss of developers, just milestones alone aren't going to take care of that. Having higher cost thresholds aren't going to take care of that.

I'm not sure how you resolve that balance between the big guys and the little guys, and make the process move forward that will give everybody a timely solution. Some have suggestions that I think CPV was making, give you an opportunity, where you're looking at clusters differently from the way PJM does today, where you tie in some of the cost allocation issues.

Then you may be in a position to identify a lot of solutions for a group. But you have to be able to deal with the restudy issue as people drop out quickly.

You know, the fairness issue is very, very difficult. If you make too many compromises for efficiency,

it's going to be very hard to reset that balance.

MR. ROURKE: I thought about the milestones from two perspectives. As I said earlier, we are really putting our new generators down two paths at the same time. One is they are going through the queue and we're doing all the studies we need to do there.

The other is if they do want to go on to participate in the FCM going forward, and then qualify for an auction, and we just did that work as an example over the last six months for the auction that takes place, units that show up in June of 2010. Sorry about that.

COMMISSIONER KELLY: I think it's the childcare center?

(Laughter.)

COMMISSIONER KELLY: Either that, or we won't go there.

MR. ROURKE: For us to look at milestones on the market side of things, to make sure that a project is real and is going to show up in time to share a load in June of 2010, it was worth going a lot, going through that exercise this year because we were able to drill down, having dealt with the state for siting for permits for air, for water, have they ordered their equipment on time, etcetera, etcetera.

That was actually very good work. When I tried

to think about the use of milestones and where maybe you fit in the queue, I think along 95 units, and I tried to think through sort of this race of milestones going forward. We're on 97 and then we're on 87 and then it dropped back to 91st, and then all of the sudden I'm 83rd.

Thinking about the restudy effort, again, I've not spent a lot of time on this, but as you can potentially move back and forth through the queue, just simply based on the race of your milestones against somebody else's, we need to give that some thought, if I understood where some of the earlier discussion was going on milestones. Because the study effort could escalate quite radically.

MR. FINNERTY: I don't think we would advocate for a project moving up and down the queue based on their milestones, versus another project in the queue meeting a milestone earlier.

When we speak of having milestones in the study process, you know, it's land control. It's proceeding into the permitting process. It's proceeding to secure equipment. As long as you are actually progressing your project forward through the development process, you should continue to log in the study process.

It is those projects that don't have land control or those developers that submit multiple queue interconnect requests for the same project from a developer, we do a

competitive analysis. We look at who's in the queue, we look at who's developing.

It's very clear to us when a developer has filed multiple interconnect requests for a single project. It's also pretty clear to us as we do that analysis, if that project will go forward or not. There may be some of that discipline that needs to be pushed down to the RTO level, increasing the level of deposits that are made to get into the queue. That may help as well.

Only developers with serious projects will take on a significant financial burden to proceed forward in the queue, and perhaps some of those revenues will help pay some of the staff that we're hearing is desperately needed to process the applications.

COMMISSIONER MOELLER: Commissioner, would you mind if I stepped in for a second? Mr. Finnerty, I'm interested because I really thought a few years ago CPV was in the position of being accused of being a phantom project, and a financial advisor was trying to kick you out of the queue. I believe you won that case.

But in light of that, do you have concerns about, as we consider different types of milestones perhaps, whether as the commissioners alluded earlier, to the extent there's subjectivity in that in trying to figure out which ones are real and which ones aren't, based on your previous

experience, accused of being a phantom project, of how we manage that.

MR. FINNERTY: You bring up some bad memories.

(Laughter.)

MR. FINNERTY: And some good memories, I guess. But yes, we don't want to see a lot of subjectivity in the process.

But for instance, wear my wind developer hat. When a project comes to file an interconnect request for say 300 megawatts, and it can't show land control or its land control consists of 1,000 acres of land, we can't put a 300 megawatt wind farm on a 1,000 acres of land.

Those sorts of decisions are not really subjective. It's a matter of fact. You just can't put a project that size on that amount of land. We want to award as much subjectivity as possible. Can you eliminate it all together? I'm not sure.

We anticipate filing comments with some specific proposals. We're going to address the milestone issue. Hopefully, it will clear up some of these questions at that point.

COMMISSIONER KELLY: Does that take care of your questions, Mark?

COMMISSIONER SPITZER: Yes.

COMMISSIONER KELLY: Commissioner Moeller.

COMMISSIONER MOELLER: Thank you, Commissioner Kelly. I have to leave for a four o'clock meeting today, so I'll quickly say thanks to everyone that was involved in this panel and the previous panels too. I know it was a significant effort to get here.

I really have only one question, and that's for Mr. Thompson. Regarding your plant, going into it, you've told me about it in the past, where the last year and a half you must have known you were going to have some challenges building a plant in one month and then having delivery points in another, multiple delivery points.

I was kind of curious. Did you get assurances ahead of time that the issues would be dealt with in terms of queuing and transmission paths, or to what extent potentially that was a pretty big risk in building what is a significant plant that obviously your members are counting on?

MR. THOMPSON: No, there are no assurances ahead of time. You simply go through the process. It's the nature of the East for us. We have to have multiple members participate to make this work. There are some you can't contract for outside engineering firms to provide studies for you.

But those independent analyses don't carry any weight with the RTOs. But no, there are no assurances going

forward. You proceed in parallel.

COMMISSIONER MOELLER: You just are nervously awaiting the results, and it just seems like quite a vulnerability when you're building a plant of that size, to go into a process with I guess that many question marks.

MR. THOMPSON: That's one of the reasons we would value the speed and certainty associated with improving the process.

COMMISSIONER MOELLER: Thank you.

COMMISSIONER KELLY: Commissioner Wellinghoff?

COMMISSIONER WELLINGHOFF: Thank you, Commissioner Kelly. I apologize for having to go in and out, and if I get into areas where you've already started to question or have had some responses, please stop me.

Mr. Herling, I'm interested in your initial discussion, indicating that very large-scale projects take time to complete.

When you talk about large scale, are you talking about big in size, as far as say a coal plant, or big in scale, like a wind farm that has multiple systems? What were you referring to when you said "large scale projects"?

MR. HERLING: Primarily, I'm talking about the impact on a project. Typically, we are talking about larger projects on a megawatt basis. But you have a 1,000 megawatt projects that impacts one or two lines, that are readily

upgradable, and the impact study is not terribly complex.

We have projects. Probably the most significant is one project where the results of the feasibility study, I think, identified 145 criteria violations. These are unique facilities in an area where there are not a lot of solution opportunities remaining.

So it will take a long, long time to delivery comprehensive transmission solution to those criteria violations. The dilemma that you find, and I could just simply drop a 500 KV line in the middle of all of this, in the hopes of involving all 145 violations.

But I'd have no way to demonstrate that that was the most effective or the most efficient solution to the customer, or that it's even remotely possible to build that line in any reasonable period of time.

COMMISSIONER WELLINGHOFF: Let me understand. Your software just can't handle it? Is that the point?

MR. HERLING: Not at all. The software identified the violations fairly quickly. But then we have to sit down and if I put in a 500 KV line, cost it out, see whether or not it solves the problems, that's relatively straightforward.

But if I start looking at either two 30 lines that can be upgraded, I'm looking at 100. This is an extreme case obviously. I'm looking at 145 different lines

that need upgrades.

First, that just takes a long time. Second, in many of these cases, these may already be lines that we've upgraded or power lines, where we've already hung a second conductor. There's just nothing left to be done, other than tearing it down and building something bigger.

A project that wants to go in service in three or four years, and you come back and your answer is it's going to take a minimum of ten to build the upgrades, is just not a very satisfactory answer to the customer.

COMMISSIONER WELLINGHOFF: That project obviously that's ahead of the queue of a number of smaller projects, is going to have an impact?

MR. HERLING: The biggest problem with anybody behind that project is that I don't even have a system to study that second project against, until I put in --

COMMISSIONER WELLINGHOFF: So you know what your solution is for the first?

MR. HERLING: I jumped a little ahead. I might give him a cheap upgrade that happens to be there for the taking. The first guy, with his 145 problems, is going to look at me like "Wait a minute. That was mine. I was first. I should have had the opportunity to pay for that upgrade, as opposed to some bigger project later on."

MR. THOMPSON: If I may, it would seem to me if I

were the company that were asking about that project and put in the request, and I found out I had 145 problems to deal with, it's pretty unlikely I would actually go forward with that project.

Going back to what I said earlier, if there are any appreciable --

MR. HERLING: We just got that system impact study we were assigned last week.

MR. THOMPSON: I withdraw the point.

(Laughter.)

COMMISSIONER WELLINGHOFF: So how did you solve the 145 problems?

MR. HERLING: In that case, we simply took a generic solution that we knew would be on an order of magnitude of $500 million and said this is the best we can do at this point in time. If you want us to continue, we will, and we'll spec them out in the impact study.

But we would have been working at a feasibility study level. We wanted to get the customer that magnitude of answer, to see whether or not they wanted to continue.

COMMISSIONER WELLINGHOFF: The answer you gave them in the context of the feasibility study, and they said "Okay fine, go ahead. Move forward with the impact study"?

MR. HERLING: Yes, and we have had others, less significant. But going back to 1999-2000, we had projects

in our very first queue that caused similar problems of much smaller magnitude, but similar, where it would take months of extra time to solve that one problem before you could then go on to the next project behind them, and the one after that and the one after that.

COMMISSIONER WELLINGHOFF: You also talked about another problem. How you get cascading studies if one entity picks multiple interconnection points. They've got somebody behind it. Because the points, it just kind of multiplies sort of exponentially.

MR. HERLING: The original process we had approved did not allow for multiple points of interconnection. We went through the FERC process, that was added in through the LGIA process. Basically, what we have to do when we get to one of those projects is give them two answers.

Then everybody after that starts to get conditional results. It takes a lot of time and creates a lot of uncertainty for a lot of projects behind that project. With the two points of interconnection, it won't make a difference.

But on of the ones where it does, it creates uncertainty that doesn't get resolved until the next study phase. When you have 100 generators in a queue, which is what we're typically dealing with, anything that slows you

down has a big impact.

COMMISSIONER WELLINGHOFF: Thank you, Commissioner Kelly.

COMMISSIONER KELLY: Mr. Herling, do you anticipate PJM finding anything to improve the process? Are you at that point in time yet?

MR. HERLING: Actually, we made a very minor filing just recently, to make a few adjustments to the process, because we have a queue starting on February 1st. We filed it so that it could go into effect if approved on February 1st.

It's essentially to try to levelize the workload and one of the figures in my material shows how, in a six-month period, we would get 40 percent of the requests in the last month. In our most recent queue, out of 130 requests, we got 51 on the last day.

So what we're hoping to do is try to levelize that out a little bit. Our concern is that if you know the six month queue is ending, if you slip into the next queue, you potentially face an additional six months. Everybody jumps in on the last day.

So we're going to three month queues. Since it's pending, we probably shouldn't talk anymore about it. We are working through our planning committee to look at a number of other issues, milestones for example.

There have been suggestions around the costs of studies needing to be increased. There have been suggestions around eliminating multiple points of interconnection.

We have had suggestions -- nobody has told us how to do it yet -- that we should essentially take projects out of the queue and study them.

If for example they're in New Jersey, because New Jersey needs generation or Washington, D.C., and we should isolate -- and this goes back to our RPM capacity market -- if you have an area that has a specific need, you should for all intents and purposes jump those projects ahead of the queue.

We haven't figured out how you balance back to the fairness issue. How do you balance the rights of the other projects, that may just simply be on the other side of some line in the sand, and are now behind a bunch of other projects.

So we're working our way through those and yes, we clearly intend to move as many of them forward as fast as possible. We may make multiple filings as we come to consensus.

COMMISSIONER KELLY: I think that's a good approach. I wanted to get your response and Mr. Rourke's response or thoughts about Mr. Thompson's testimony as a

generator in the interconnection queue process.

I guess you're not in the transmission queue process, just interconnection with MISO-PJM, some of the difficulties, perhaps, of a small generator dealing with a large RTO. Any thoughts, any way to make it more flexible or more hands-on?

MR. HERLING: There are a lot of things that need to be improved upon in the process, certainly within PJM. We have made a lot of changes in our analytical procedures, as well as our process of interacting with our transmission owners and our generators.

Hopefully, the kinds of delays that AMP was facing will be few and far between in the future. We have had problems with some of the projects that connect at lower voltages. Because of the non-jurisdictional sometimes, you are getting down into systems that we do not plan for.

We really have no ability to manage the process in the same way that we do if the same project was up on 115 KV for example. That isn't always the problem. Sometimes those KVs go very quickly, based on the particular strength of the system at that point.

Other times, it can be problematic. Unfortunately, I don't have the particulars in that situation. But clearly, that's just not an acceptable turnaround for a study for a generator of that magnitude.

But we have had, in a number of cases, more trouble than you would expect for projects down into the distribution system.

MR. ROURKE: We've been faced with the same issues. I would say we haven't had quite that extreme a case that AMP has gone through. As I said, we have roughly 95 units that are in the queue right now.

Roughly two-thirds of them are actively under study. The other third are either near the tail-end and we're working with the transmission owners on the facilities studies and having IA decide. They're on the very early end on setting up scoping meetings and getting studies moving forward.

We do try to be very hands-on with the developers and the affected parties, as they are identified. Jurisdiction-wise, the same type of issue for us. Some of the generators in our queue do basically fall out of our tariff. They're under the jurisdiction of the states.

So the interaction in that case is actually primarily with the transmission owner, much less so with the ISO. We for the most part study 69 KV and up, and we don't observe really anything lower than that in our studies, much like the challenges that Steve raised.

I have heard folks on this panel and earlier panels that did put out dates that seemed unacceptably long.

But we've not had that experience.

COMMISSIONER KELLY: Ms. O'Connor, it's very encouraging that New England is working and has made a lot of headway on improving queue management in the New England ISO, RTO. What can we do short of attending stakeholder meetings which, I suspect, staff will?

MS. O'CONNOR: We welcome the inclusion of FERC in that process. Really what we're looking to do is to continue with the process we've established, and to work through it. You heard Commissioner George earlier talk some of the things that Connecticut is suggesting.

I'd like to answer your question with just a brief anecdote about the last meeting that we had, which was pretty interesting, because what we're finding in New England, Steve and I talked about this earlier, is when you bring companies together and stakeholders together and they're not quite sure what their position on things, one of the things that comes out of that is a really amazing dialogue with some very good suggestions.

Connecticut, through Andy Speck, gave a presentation at our last interconnection meeting, and there was a tremendous level of give and take between the generator community and Connecticut and some of the other states, as to what we were going to do.

I guess in answering your question, Commissioner

Kelly, I think it is to let us continue with this process, with a finite end in October of filing something with the Commission.

Hopefully, we will resolve it, as I mentioned in my comments, and we will define for the Commission what we are unable to resolve.

COMMISSIONER KELLY: You're going to have a dead but skinny cat?

(Laughter.)

MS. O'CONNOR: That's our hope.

COMMISSIONER KELLY: So since you worked together on the schedule, I assume that the filing here in October is not going to interfere with the FPM process?

MS. O'CONNOR: I'm looking at my colleague, Steve Rourke. But no, that was taking into consideration the discussion.

MR. ROURKE: Actually, it collides into the window between the first auction, which is being run February of '08, and the second auction being run in December '08. We've got a little slice of time there in the middle to complete that work.

COMMISSIONER KELLY: Staff, do you have any questions?

MR. GASTEIGER: Just a follow-up on Commissioner Kelly's question. The issue seems to be related to synching

up the forward capacity market with the interconnection queue.

Looking over at PJM, I don't know to what extent with their RPM they've had to deal with this issue, whether it's been a problem or not.

If it is or it hasn't, whether there's anything that New England could perhaps learn from PJM or their experience, and whether there's been any dialogue between PJM and ISO in New England over how they've handled that issue.

MR. HERLING: The only real issue that we had to deal with with RPM was because of the nature of the interim auctions. We had the process through a number of years in short order. We had to get a lot of generators to milestone points where they could bid into a particular market.

In addition to running all these other studies, we have processed dozens and dozens of interconnection service agreements for generators that were nearing that point in the standard process but clearly would not be able to get there.

So we have to do extra studies for that ahead of schedule, to say okay, you'll be ready in 2007 or 2008 or 2009, or whatever the year would be. It added a significant workload requirement for us. Our hope is that now, as we move forward, going to one auction a year, those time lines

will be synchronized with the rest of the planning process, and that will no longer be an issue. This first year was a lot of extra work.

MR. ROURKE: I would just add, Larry, we always certainly learn from other ISOs and RTOs on things. When you think about the FCM, and we also have an Order from all of you, to come up with an interzonal deliverability standard, there's a deliverability standard of sorts that's actually in the market right at the moment.

We very much based the approach on what PJM does in that area. Going forward with how we would work to align the FCM with getting generators through the queue.

I envision, not to guess the answer here, because we've got months of work left to do, but I envision the deliverability standard will find its way into our Schedules 22 and 23 of the tariff, the LGIP and SGRP as an example, based very much on what PJM has in place now.

We are actually in the tariff now, and have only one way for units to interconnect that have come forward, the minimum interconnection standard.

There are, I believe, at lEast two different standards in the PJM tariff, where you can step forward either as an energy-only type of unit that wants to participate in markets, or to participate as a resource in that market.

I'd be surprised if we didn't end up actually moving back much more toward pro forma, and having the two products in our tariff. We are certainly doing some homework. We may need to invite Steve to one of our stakeholder meetings, and help us out. But we're certainly doing that.

MR. PALMER: I had a couple of questions. First of all, Steve, maybe you can answer this, and also Mr. Rourke. The issue has come up a number of times about the restudies.

What it sounds like is potential for many combinations and permutations that can result from the contingencies of the other projects in the queue. Have you looked at any way to try to automate this process?

It almost sounds like, and I don't know in fact whether you actually have sort of custom-engineered projects for every study, but is there some way that the process could move faster, if you had either better automation or better models or something like that?

MR. HERLING: Most of our analysis is in fact automated. The part that takes the most time is identifying viable solutions. You put them in and you retest, but the retesting is automated largely.

There is no good way to automate the identification of solutions, other than at a very, very

general level. At the end of the day, you have to know whether or not you can build a line between Point A and B, or upgrade the conductor, or add a transformer and a substation.

The only way to do that is a lot of back and forth with the transmission owner. The obvious solution may be to add a transformer in a substation, but there may not be any space. So then you look at upgrading the size of the transformer, and that may not get you where you need to be.

So now you're looking at some other solution, at some other substation. So that really is what takes time. The suggestion made earlier today to essentially do the analysis in tiers would get you some of the way there.

But typically when we do a cluster, the generators are electrically close together but not sitting on top of each other. It's not just a simple subtraction situation. You remove a generator at Point A, you get a different result, than if you remove a generator at Point B.

You could get some of the way there if you did the studies as described earlier, in kind of a tiered fashion. But you wouldn't necessarily have all the combinations accounted for.

MR. ROURKE: Ray, one of the tools that we lost, and maybe more importantly that the developers lost following Order 2003 was the ability for them to ask for an

optional study first.

After Order 2003 came out, we're obligated now by the tariff to do the sequential study. So we needed Study No. 1 fully before we look at No. 2, to do fully before we look at No. 3, etcetera.

I think Sean made very good points earlier. They actually know better, the ISO does, who of their competitors that are in the queue are real or not? Through an optional study, they could come forth to us and say "You know, do my first study, but ignore these other five generators are ahead of me in the queue, because I know, I have a sense that they're not going to come forward."

Many of the units that we had built coming out of the late 90's during the building boom them went down that route. They knew that if they could get in first, their competitor in fact might not follow.

We would do that study first with them. They would have a sense, in that kind of a world, what they would need to do to interconnect. We would then follow it up with the fully study, such that they knew, and it was their risk that if those other units came forward, they would also be operating this line for the substation, those kinds of things.

But the ability to maybe give that flexibility back to our developer starts to help with some of the

restudies, because then one or two of those three units in fact do drop out of the queue, you've already done that study and you're not going back one at a time, and doing it over and over again.

That's an area where I think we could certainly give some thought to that.

MR. PALMER: Is there some potential gain for more transparency in the process, in terms of is there data available that people can do their own studies, or is it all proprietary to the TO or the RTO that's doing the work?

MR. HERLING: Our case is while they are certainly protected, if you go through the appropriate mechanisms for CEII, they're all available, you know. Every year we have a base case that we develop for our RTEP process. We then have a base case that starts at the next cycle of impact studies.

You have to go through the right steps. But you can get those cases and get a consultant and do whatever analysis you want.

MR. ROURKE: One area that also changed as a result of Order 2003 for us is prior to that order, we showed the name of the developer next to the list of all the units in the queue. Now we're obligated to redact that name.

They all seem to know who they are, so I'm not

sure it matters. But now where a new unit comes forward, takes out an obligation through the auction and finds they get snagged because their equipment isn't going to show up in time, they get stuck with their site, and they're just going to be late.

Being transparent to the balance of the queue, where they could betray their position to somebody else, that's much more clear that through the queue list itself being, more transparency, might be helpful.

MR. MCCLELLAND: A question for Mr. Hurley and Mr. Rourke. I heard the witnesses today on the panels.

I had a question at the conclusion of this. The question would have been if you could wave the magic wand, if we could grant you three wishes to make this process better, what would the wishes be? I'll take a shot at these wishes, but I'm going to do it in reverse order, okay.

I would say the first wish would be actually number three would be resources. I've heard the models are automated, which we knew, and it's fairly easy to manipulate the models based on where the generation injection is or what falls out as far as the criteria and reliability standards.

But still, people in modeling and resources is an important criteria.

Second would be the seriousness of the folks that

are in the queue themselves, whether or not someone's going to take the project to fruition.

There have been some proposals, as far as posturing, as far as accountability, maybe even some second-guessing or some educated guesses, as far as whether or not an entity really is serious or is speculating on the position. But the last one wasn't so clearly stated.

When I listened to you in particular, Mr. Herling, and your comments were very helpful as far as what some of the complexities are and the problems are when one actually models the system, one evaluates what the impacts of the system were.

It sounds as if the easier projects have been picked over, that now it looks as if the more difficult construction needs to made to accommodate some of these larger projects.

Much of the time that's spent in the queue is to try to evaluate what might be simpler or what might be projects that can proceed with certainty. But siting seems to be a problem as far as siting additional transmission facilities.

The 500 KV line you referred to experiencing into the substation for another transformer. Would that be a correct summary? Do I have it right? Maybe siting last, and maybe the most difficult challenge coming through the

queue process.

MR. HERLING: Developing an impact study when you have complex upgrades. That really is what kills you, and unfortunately, as I described before, it has an impact of propagating through the rest of the queue.

For example, Northern Jersey is one of our tougher areas. If you'll look at our RTEP and you look at the impact studies that are out there on the web, I think we're probably upgrading every line in the entire state. There's nothing left to do, you know.

Every study that comes along, even if it's for an 100 megawatt peaker, it can be a challenge just to find an upgrade to squeak those extra megawatts out onto the system.

MR. MCCLELLAND: In LMP, the pricing in these locations highlights that issue. In other words, that's why the price is so high, because capacity is scarce. Is that correct?

MR. HERLING: LMP is certainly high and capacity prices are certainly high in Jersey because of the load generation balance. You know, the load in Jersey is growing perhaps a little bit faster than the average NPKM.

But the system is just a very densely populated area, and it's more dense all the time. That complexity, and it's not just Jersey, it's elsewhere as well. But that's the fundamental problem that makes some of these

impact studies so hard to complete quickly.

MR. ROURKE: I would say we were in very much the same box in Southwest Connecticut for years. We needed more transmission built to serve the load. We needed more units to interconnect now to serve the load. Until we fixed the problems with the transmission lines, we actually were not able to interconnect with the new units.

So they were just really stuck in a box, and it took years, as all of you know, to study and site that, dealing with the underground issues which we all dealt with down in Southwest Connecticut. So that was our worst area.

But really the same story. These are complex studies to do and there's times that, as odd as it sounds, you can't even tie in a unit to fix the problem, because you need the wires to be able to make that commitment.

So I would say your top three list, I hadn't thought through it, but looks like a pretty good top three list to me.

MR. PALMER: Just to follow up on Mr. McClelland's question from a little bit different angle, I should note that what you brought up also, Mr. Herling, was that in addition to your concerns, such as the RPS standards of whatever the term, there may be an issue that could warrant some queue-jumping, if you will, where there are terribly congested areas.

In fact, there could be some looming reliability problems, even if the standards aren't being violated now.

I just wanted to know, do you have any sense of whether some of the smart grid-type solutions might help in managing those areas better, and perhaps creating some opportunities that can give you more time to create the kind of physical hardware solutions that you're thinking about now?

MR. HERLING: We're trying to keep our eyes open for all the possibilities that advanced technology may bring. The simplest of those are the newer conductor technologies.

I wouldn't necessarily put that in the smart grid bucket, but we've looked at some of the newer conductor technologies, to get every megawatt out of a particular corridor that we possibly can.

In terms of controllability, we'll look at anything. But moving megawatts from one place to another, it only optimizes what you have. We're at a point where we need more. So optimization is good; more is better.

COMMISSIONER KELLY: Thank you very much. We really appreciate this panel giving us a different perspective. In the East compared to the Midwest and the West, I'd like to ask my colleagues if they have any concluding comments they might want to make.

(No response.)

COMMISSIONER KELLY: I'll just take a stab at a few. First, I was really struck by the meatiness of all of the testimony. I want to express on behalf of the Commission our thanks for spending the time and the effort to really give us the benefits of your thoughts, and your experience in the detail that you did.

As Ray mentioned at the beginning, the record will be open for 30 days. We encourage anybody who wants to submit additional comments to do so. Based on the testimony here today, I anticipate that we'll have filings from most, if not all of the ISOs and RTOs, over the course of a year, some of them sooner rather than later.

We want to thank you in advance for that. Staff and the Commission will be staying on top of this. We're a resource; staff's a resource for you as you need it, and we'll be staying in touch with you all as you go through your efforts.

We know that getting the queue management improved is important to you and it's very important to us. I think that what we saw today was that there are concerns across the country, but they've very diverse concerns.

So it does seem to be appropriate that we approach this on a region or even a sub-region basis. Everyone wants to see the queue management process improved,

but it's in response to different concerns.

I personally learned a lot, and I thought that there's a good cross-pollination of ideas. People in the West thinking about the issues from a different perspective than people in the East. Having maybe some of the same problems we're thinking about it differently, being able to share those has been valuable to me.

It's clear that people that have been here today have been thinking about queue management for a long time, and have been thinking about solutions to it for quite a while.

We appreciate the efforts that you've gone through and look forward to your filings. Thank you very much for your contributions today.

Since the Chairman gave me this, I'm going to use it. Thank you.

(Whereupon, at 4:25 p.m., the technical conference was adjourned.)