

## Public Technical Conference on U.S. Department of Energy Congestion Study and Criteria for Designation of National Interest Electric Transmission Corridors

*Hilton Garden Inn Chicago O'Hare Airport  
2930 South River Road  
Des Plaines, Illinois 60018*

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### **SESSION 1: Welcome and Opening Statements by U.S. Department of Energy**

**David Meyer**, *Acting Assistant Director, Division of Permitting, Siting, and Analysis, Office of Electricity Delivery and Energy Reliability*

Good morning, ladies and gentlemen. I'm David Meyer from the Department of Energy. Kevin Kolevar, Director of our Office of Electricity Delivery and Energy Reliability, was intending to be here to get us started this morning, but unexpected issues in Washington have kept him there. So he's not able to be here today.

So my first task is to welcome you and thank you for coming to our technical conference. As the agenda shows, the purpose of this conference is to bring you up-to-date on some of the work we're doing on our Congestion Study and our thinking regarding criteria and procedures for the designation of national corridors. And we want to hear from you in more detail on some key issues raised in the comments to our February 2<sup>nd</sup> Notice of Inquiry.

We will start with some opening presentations by DOE and then we'll take some Q&A on matters related to those presentations. And then we'll have two panels of experts focusing in on some core issues raised in the comments. And then each panel will start off with short summary statements by the panelists. DOE people will then ask a round of follow-up questions. And after those questions, then we'll open the discussion to comments and questions from the floor and also from the webcast audience.

We regret that we were not able to accommodate everyone who wanted to be on our panels. There just weren't that many slots available given the time constraints. But we will do our best to give time to all issues. We do have one request, however, that to the extent possible, please refrain from restating views that you or your organization expressed in your written comments. To the extent possible, we want to use this discussion to probe more deeply into more specific issues.

If you wish to submit additional comments to DOE, you may do so at the e-mail address that is provided on our website. And if you need the exact website address, let me know and we'll make sure you get that. So thank you all for coming and we look forward to a vigorous and fruitful discussion. So I'll turn the floor over to Poonum, who is going to bring us up-to-date.

**Poonum Agrawal**, *Manager, Markets & Technical Integration, Office of Electricity Delivery and Energy Reliability*

Thank you, David. Good morning, everyone. I just wanted to let you know that in addition to about the 100 people that we have here, we have over 100 people dialing in -- or I should say logging in -- to our conference. So we're really excited about that. For those who are on-line and can hear us, you have a feature in the on-line system to submit a question and we'll be monitoring those questions electronically and trying to take those into account as well.

And just one housekeeping reminder, if you would all just turn your cell phones on -- off -- off that would help. And now without further ado, I will get into some comments about the Congestion Study.

The purpose of this segment is to provide an update so that we can inform the discussion about the process. If we got into the real nitty-gritty details of the assumptions and the methodology, we could spend a whole day just on that. But we will be addressing that later on.

I would like to take a moment to acknowledge the Congestion Study Project Team. They're listed here on the slide. As you can see we have several people, several great minds working on this from various consultants to DOE staff. In addition to the DOE staff, both our office and general counsel, we are coordinating with other folks in our office, like Julia Souder, especially on the Section 368 work, and with Larry Mansueti on some of the state outreach work.

We're working with the Western Congestion Assessment Task Force, an ad hoc group that was formed under the auspices of WECC and SSG-WI and they're helping us with the modeling in the west.

CRA International is helping us with the modeling of the study in the east and Steve Henderson is here today; and from the western teams, everyone is here except for Dean, I believe. And we have several advisors helping us from various backgrounds and we have the assistance of Energetics and Lauren Giles who is helping us with the logistics of the work that we're doing.

As you may know, the Energy Policy Act requires DOE to issue a National Congestion Study by August 2006 and every three years thereafter. The purpose of our study is to identify areas with important transmission needs and where major transmission enhancements or some suitable equivalent are either needed now or in the future.

Next slide. With regards to the scope of the study, we'll cover the U.S. portions of the eastern and western interconnections. Per the statute, ERCOT is exempt. And although we're covering the U.S. portion of the interconnections, data and information related to Canada's power system and cross-border trade will be incorporated into the analysis by two means: 1) historical analysis and 2) through NERC's MMWG load cases to the extent they're contained in that. And with regards to the modeling, the transmission corridor is defined as a complex transmission path between two hubs or nodes. We can't figure out one best term yet for either hubs or nodes, so if you have a suggestion for that let us know. We had great debates in our project team about that but we couldn't come to a decision yet.

The first part of our study includes a review of existing studies, transmission trends, et cetera. The purpose of the review is to identify congested areas based on historical analyses and understand metrics and methodologies used to assess congestion. There was no surprise that when we did that, we found that there's different methodologies, different metrics, and a lot of different information contained that makes it challenging to look at it across the board.

Our project teams looked over 50 data sources, plans, and studies from various sources and in the notice of inquiry that we published on February 2<sup>nd</sup> we listed the sources that we had under review, and we requested additional information, additional studies that we should consider.

In addition to the analysis that we'll be doing, and I'll get into that in a moment, the west will also be looking at contractual or commercial congestion based on our only available transfer capability and reservation data from the OLADE database. The results of this work will be compared to the future modeling that we do to come up with the information that we put into the Congestion Study.

With regards to the modeling, the east and west reviews are being separately done but coordinated and the model years we're looking at 2008 as the first model year and then in the east we're looking at 2011 and then 2015 in the west. And the reason, well, not the reason...there's a greater emphasis on 2008 because it's more near-term year and there's less certainty about the assumptions of out years. So there's greater emphasis placed on the 2008 years.

The modeling is based on load flow cases provided by NERC's MMWG (the multi-area modeling working group). And the constraints are imposed based on the NERC flowgate books, coordination council constraints, information from the independent system operators and regional transmission operators and additional contingency analysis performed by General Electric and CRA.

Additional analysis is also provided by CRA on historically binding constraints.

There are several scenarios being considered. In the east, for example, we're looking at a low base and high cases for crude oil and natural gas prices. And we're also looking at new wind capability in the Midwest.

In the west, we're looking at the scenarios that are being considered as part of the clean and diversified energy initiative and those include the high efficiency renewable energy and clean coal cases. We're also adding a low hydro case as well.

Let me just get into this - the teams are looking at several indicators of congestion and these cover reliability, economics and usage or utilization. And the examples are, what we're looking at here are listed here. The first one is all hour shadow price which we're calculating as the shadow price over all years for the year and binding shadow price where we look at the average shadow price over the hours during which the flow gates or transmission elements were binding. We look at what we're in the east calling congestion rent, which is a shadow price times a flow times the number of hours the flow gate was binding and there's some question about whether this is an appropriate metric or not. And then we're looking at the binding hours. The number of hours percentage of the time annually that the constraint was binding. And then we are very proud to have

come up with a new term U-90. It's the number of hours or percentage of time annually that the transmission element or flow gate or path was loaded in excess of 90% of its limits.

In the east I believe we're looking at thermal limits and Steve will correct me if I misspeak here. And more of stability limits in the west.

And don't go there yet. All right. What I just wanted to add was our analysis is nearly complete, and over the next couple of months we will be reviewing the results of the analysis and drafting the report. We will refine and clear this report for publication in June and July. And it will be published in August. And you can imagine it takes a long time to get things reviewed in government agencies.

In the process of conducting this study, we're finding that there are data and information gaps, differences in data, definitions, differences in data, definitions in methodologies and assessment of congestion. And some are for obvious reasons or necessary reasons. And we hope to be addressing these gaps or coming to some sort of common way to review these across the board as we move forward. And several commenters have urged us to get started on the next transmission study as soon as possible and our plan is to do that once we publish our study and get some feedback on whether we have the right metrics, whether we have the right methodology, and some comments with regards to the data and the information that's available.

And particularly in relationship to the corridor designations, as we move forward with those, how does the information from the Congestion Study feed into the corridor designation.

And given that the Congestion Study is based on substantially or based substantially on existing regional scale work done by other organizations, in some ways its results will probably not be very surprising. The real contribution of this study will be to identify from a federal perspective certain regional transmission needs as especially important. And in so doing the study will indicate DOE's intention to focus on these needs in an ongoing way and to work pragmatically with affected parties to achieve satisfactory and timely solutions.

And so I'm going to leave it at that, but in the Q&A I look forward to some comments or discussion around whether we have the right metrics, how these relate to the criteria that we will apply in determining which corridors are designated, and without having given you much detail on our methodology and assumptions, perhaps some discussions about that, but more so on the metrics. And I will leave it at that and I believe we'll take questions after David's presentation. Thank you.

**David Meyer**

Thanks, Poonum. I think that gave us some context or gave people some of the background on the effort.

In the comments we received on the Notice of Inquiry, many respondents raised questions about how our process for the designation of national corridors will work and how it will relate to other responsibilities that DOE has under the Energy Policy Act, such as the designation of energy corridors under Section 368 and the coordination of federal environmental reviews of proposed transmission projects under Section 1221-H.

Now we don't have all the answers to those procedural questions yet. We're still working out some of those relationships. But we will today try to outline and discuss with you some of our current thinking on those questions, and, of course, we'll appreciate your feedback.

So, Lauren, go to the first slide. In the comments, we noticed a wide range of opinions, sort of circling around two fundamental questions. And one of them concerns the geographic scope of these national corridors, that is, the national -- the national electric transmission corridors of national interest.

Potential transmission developers and some transmission users would like to see national corridors designated broadly and freely so as to facilitate the construction of transmission to meet future requirements.

And by contrast, although the states generally, I think, recognize that national corridors should be more generic than a specific route, many states are uncomfortable with a designation of broad and vaguely-defined corridors over long distances. And we had references to Montana to Los Angeles, for example, as a corridor or concept that is unacceptably broad, or, similarly, designation of large areas of corridors without clear relevance to specific projects, potential projects.

Then the second question that -- fundamental question that was addressed in various ways -- refers to the timing of the corridor designations. Prospective developers would like to see DOE designate national corridors in selected areas as soon as possible. Perhaps in recognition of the relative importance of a proposed project or to assist in obtaining financing needed to continue refining a proposal. And by contrast, some states assert that DOE should not designate national corridors until states and/or regional organizations have had an opportunity to formulate and express their views on the appropriateness of such corridors or projects that might use them, in relation to state or regional policies and needs.

And these two issues are inter-dependent. In the evolution of a major transmission project, both the economic merits of a project and the prospective route for the project become more clearly defined over time. And so the issue is when in this evolutionary process is that designation of a national corridor most appropriate. And further I think it's realistic to expect that given the varying circumstances from case to case, that no single answer to that question is going to be appropriate in all cases. So this suggests that DOE should preserve a considerable degree of flexibility, listen carefully to others about how and when to exercise this discretion, so as to do so productively in particular cases.

So with those considerations in mind, I want to introduce for discussion here a new term. Go to the next slide. That is, introduce the term Electric Transmission Constraint Area. And if we were to designate an area as a constraint area that would refer to some fundamental problem in the transmission infrastructure that we think is especially significant.

And such designations could identify with considerable precision in terms of the functionality of the grids, areas where transmission expansions, enhancements or non-transmission equivalents are needed.

The constraint area usually I think would not have a precise locus, or exact geographic boundaries. But in a sense that may not...that's not a serious deficiency. By designating the area, the constraint area, DOE can flag an important problem, a problem that has been observed and in, whether in some of the regional flows to

transmission planning studies that we've reviewed or some of the modeling or perhaps codified, corroborated by both, but in any event we can flag that area as an important problem and then remain for at least some period agnostic about the appropriate solution. Because we would want to hear from a wide variety of parties about possible solutions.

The next slide. So that then that raises the question, then, what's the relationship of the constraint areas and national corridors? Well, first, obviously, generation or other non-wire solutions would not need corridors. National corridors could be designated when and if appropriate to support facilitate transmission solutions.

And so I see two advantages to this approach, that we can identify the needs with some degree of clarity without becoming prematurely committed to a particular solution. And then the corridors, when appropriate, can be designated but the area affected can be defined a little more precisely. Not that we would go to the point of designating a specific route. But at least I think the states and other parties would have a much clearer sense, all of us would have a much clearer sense of what is the geographic, the appropriate relevant geographic area to think about in terms of proposed corridor.

Now, there are some important linkages to regional planning that need to be observed here. One is that both constraint areas and national corridors would need to be very closely coordinated with the ongoing regional planning exercises.

I want to be clear, there is some legitimate concern about picking winners, as in the common phrase, when you get to the corridor designation stage, that is, if we appear to be picking a corridor that relates to a specific project, are we not giving that project a leg up on other kinds of competing solutions? But to me that's a timing issue, primarily. That is, we need to first to be very clear on the basis of analysis by ourselves and others that a transmission solution is in this -- in a given circumstance that a transmission solution is appropriate, and then we would want to hear a lot from other parties about the appropriateness of a proposed solution. And it goes back to the rationale for designating constraint area to begin with.

The constraint area would be a matter of concern *because*, and then you, if you're looking at a solution, the question, can you show conclusively that the proposed transmission line would indeed ease that problem a very significant extent?

And finally I think, nonetheless, DOE would wish to reserve the latitude to designate a corridor without a constraint area, or in a constraint area without a specific project in view.

We realize if we were to do that we would have to make it very clear what the rationale was for that proposed action.

So that's my discussion about these process questions. Here again are some of the contact points that you can use in relation to 1221 and Section 368 corridors, the multipurpose energy corridors that we're designating in the west or identifying in the west under Section 368 and there's more information on our website.

Jody, let's shift over to Q&A. This is Jody Erikson; Jody is our facilitator for today. She's going to make a few remarks about the process and then we'll get started on some discussion.

### **Jody Erikson, Facilitator**

Just before I open it up to questions and answers and comments, I wanted to say briefly that as facilitator, my job is to help you stay on track and create as many opportunities for as many of you to speak as possible. One way to do that is through timing issues; if you have a question or comment, limit that question or comment to about three minutes so that as many people as possible can speak and hopefully the answers will be also limited to about two to three minutes as well. Hopefully we can get as much in. If the answer needs to go more than three minutes I think it's important that the answer is fully articulated. But just try to keep the questions to two to three minutes so more people get to ask. I also may try to reframe things that you're saying to be more on target. You may make lots of comments. We want to see if we can get the question focused on the issues at hand.

So I'm not -- I don't live this every day so if I reframe incorrectly, it's actually a reframing question and you get to say no, you didn't get it at all.

There are people on the phone, on the web, and so their questions will be -- Marion over there is going to take them and pass them to me and will get filtered into the questions as well in the question session as well.

So we're also, this is also going to be transcribed, and it's being recorded. So if you can state your name, organization, so that's in the record when you ask a question that would be really helpful. I'll probably keep repeating that to make sure your name is stated.

So we'll go ahead right now and start up with the questions. And just as I was listening to them, couple of things, this question session is really focused on questions about the Congestion Study and the metrics and how the metrics relate to the designation criteria. Also, if you had suggestions about the definition of nodes and hubs, I think Poonum suggested, requested some of that. As well as questions about the corridors or the constraint area concept. Hold the specific questions or comments about the criteria or linkages for regional planning because session two and three will address those.

So questions on what you heard from Poonum or from David about the Congestion Study, the Congestion Study matrix, the constraint area - the concept that David presented about the national interest electric transmission constraint areas.

Questions. There's a microphone on the stand and I'm more than happy to walk over with this one. Start up front.

### **Audience Member**

*Bill Smith, Organization of MISO States.* First of all, let me say that I think, David, the constraint area concept articulates something that very positively that is inherent in the corridor concept. The corridor is to go to someplace and now you've given the name to the target that is under study.

I'm not sure why you would want to reserve the ability to designate a corridor that doesn't relate to an area but I'm sure there's either some possible thought in your mind or some possible situation that you're directed towards.

But the other reservation is without a specific project in view, sounds like that would be the exception. I think the exception ought to be when you do have a specific project in view. I would like to think that the study process at least ultimately would be sufficiently ahead of the problems and the formulation of particular projects that you would be identifying constraint areas and corridors prior to the formulation of particular projects. At least that's my first reaction, and I could be talked out of it.

**David Meyer**

I think your interpretation is pretty much on target, Bill. The law doesn't mention this term constraint areas. It's something that came to mind to us as something that would enable us to develop the thought process, the, marry up the analytic process to the designation of these corridors better. And it is a way of signaling early on a strong interest in a particular area and remaining agnostic about solutions we see a lot of value in that. Our concern, our fundamental intent, is to exercise this authority skillfully and effectively and so that's why for the most part I agree, that it would follow this path that we've laid out. But there's such variety in the potential situations out there that I think we need to preserve some of that flexibility that is in the Act itself.

**Audience Member**

*Larry Salomone, Washington Group International.* My question at this time when we're looking at the big picture is once the report is issued designating constraint areas or areas of congestion, consistent with the Energy Policy Act that states the role of DOE, FERC, and the possible funding issues, could you describe how the momentum of having these areas defined will continue to proceed to the actual improvement of the infrastructure?

**David Meyer**

I'm sorry, you referred to funding issues. I'm not sure what issues you have in mind yet. So could you elaborate on that a little bit?

**Audience Member**

*Larry Salomone, Washington Group International.* In the Energy Policy Act, in Title 12, there are some references to funding being made available for the purposes of the modernization of the grid. It was not clear really whether there is funding, and that's the point of my question. Where do we go once that report is issued to actually get the improvements to eliminate the congestion of the areas identified and what, if any, is the role of Congress with the department to help achieve the benefits from your report in August?

**David Meyer**

Well, I don't think you're likely to see much federal money being put into transmission expansion. I think the Congress's fundamental intent here is that those expansions will be funded either through on a merchant basis or on a regulated rate of recovery basis.

So the work that the Congress may appropriate money that we would use for transmission related R&D, there are loan guarantees in the bill that are authorized to support various new generation technologies, in some



cases loan guarantees I suppose might be applied to transmission investments, but in terms of actual appropriation of federal funds to support some of these construction projects, that is not a -- I don't think there's a lot of emphasis for projects of that kind in the legislation.

**Audience Member**

*Larry Salomone, Washington Group International.* So what would --

**David Meyer**

So then let me, when we designate constraint areas or find major congestion sites that we think, where we think it's productive in terms of benefits to consumers, to think about transmission expansion, by flagging that concern, we think that will, it will at a minimum, it focuses the attention of the industry and the regulators, state regulators, other kinds of officials, on dealing with these problems. It underscores that these are from a national perspective it is important to deal with these problems.

And once we, with respect to any given project or dealing with a given problem, once they're designated then we can begin to understand, zero in a little better, and say what are the obstacles to dealing with this specific problem and how might they be addressed? How might they be overcome? How can we respond pragmatically to the particular situation?

And so there will be a number of solutions. I mean, the path that we worked on in the west, after the one in California that we worked on with WAPA and some other utilities in the south in California, that's an example of the kind of thing that I have in mind where we respond pragmatically to the problem.

**Audience Member**

*Larry Salomone, Washington Group International.* Will DOE then serve as a catalyst or an integrator to ensure consistency among regions once these areas are identified and highlighted?

**David Meyer**

We will not -- I think it's very -- we need to be very cautious about insisting on consistency between regions. There may be good reasons for differences between regions. But if people come to us and make an argument that there ought to be consistency in order to deal with the seams question, say or something like that, we'll be happy to listen to that.

**Audience Member**

*Larry Salomone, Washington Group International.* Thank you.

**Audience Member**

*Craig Glazer, PJM Interconnection.* First, David and DOE, I want to thank everyone for having this conference. It's never easy to stick your neck out particularly in the decision making process. But to the extent the transparency of this and the discussion it's very much appreciated. I think it helps inform the entire process.

Just a question of clarification with regard to sequencing. There were a lot of comments submitted about not getting the Department in the middle of the citing process or choosing particular projects. You yourself said in the presentation that concern about picking winners and losers or pitting one project against another.

Let me just understand this from a sequencing point of view. As I understand this designation or, excuse me, indicating that something is an electric transmission constraint area sounds sort of like an intermediate step in the designation process. Let me just run through a scenario and see if you can help explain how this would fit in.

Let's say that the Department has indicated a particular area is an electric transmission constraint area, and as a result of that let's assume for the moment it's an RTO-ISO region and they've got a planning process. With that in hand, they go forward at that point and start looking at specific projects. Some point at least within the RTO planning process some point it gels into a specific project. Talking about the RTO process not the DOE process.

At that point, let's say the RTO has then centered, has come together on a specific, yeah, we need a line to go from point A to point B, does that then come back to the Department or this designation? Now the second step, and if it does, are you then sort of back in the soup, if you will, in terms of choosing particular projects or choosing winners or losers if it, in fact, comes back to you for the second step? Wonder if you could sort of explain the sequencing given this intermediate step. Thank you.

#### **David Meyer**

First let me say that we recognize that the RTOs - some of them, it varies from case to case - but you are essential already in this process, this iterative planning process, and we're sort of coming in kind of the middle of that. And so we recognize that there is, in some cases, a lot of analysis that has already been done. And that's to our benefit, quite frankly.

So if we designate a constraint area, there's a considerable likelihood that it would correspond to work that you folks had already done. And, further, then you would have all, you may have already done considerable analysis looking at the solutions, the possible solutions. And you may have opened the door to various kinds of, explored with market participants how are people willing to step forward with different kinds of solutions, and so you may have, in dealing with that particular problem, you may be already pretty far down the road in thinking, coming to the conclusion that a transmission solution is indeed the most appropriate one in this particular context.

And while we would want to look at individual cases very closely, we certainly wouldn't want to say, well, sorry, you have to go back and start from the very beginning. That wouldn't be at all productive.

So to me on this question of associating corridors with specific projects, there is a trade-off here. There's a -- that unless you associate a corridor with a specific project, the corridor just tends to balloon geographically and its boundaries become very amorphous, and so that it, in some sense, it becomes just a very difficult concept to work with. So if you link a corridor to a specific project but not to a specific root, you know there's a point in time when the project is starting to emerge as a very attractive and suitable proposal to solve this problem, it's in that stage when I think corridor designation is most appropriate.

We don't want to hold off until an actual route has been determined. That would delay things, delay the corridor designation unnecessarily. And I think we would lose some of the benefits of that kind of designation, of the designation itself, if we waited that long.

So we do want to wait -- we do want to link a corridor designation to particular solutions, but we're very mindful of jumping in too quickly to give that designation. So we would want to hear from a lot of affected parties on this timing question, on this seeming to select something prematurely in ways that would either stifle creativity on somebody else's part or just unfairly disadvantage.

But we are going to have to break some eggs here sooner or later. You can't avoid that. So...

#### **Audience Member**

*Robert Schlueter, Intellcon.* I strongly support the constraint area concept, because it's consistent with the techniques that industry has used. We have a method for finding constraint areas for voltage stability, as well as the contingencies. What we've found is that the constraint areas that we find are, with our tool, is absolutely consistent with the technology that is being used today. For the most part.

And in fact we find more contingencies, perhaps, than others. But what my concern is, and my question is, is the following: That not only FERC but virtually everyone recognizes that stability is an issue where the actual contingency that brings you down has not been predicted and the absolute constraint area that makes the system fail is not identified as well. Is the process one, and this is a question -- let me make another comment. In all the studies we've done, whether it's California or PJM or New York or MAPP or MISO, what we found is there are regional problems. And the regional problems have many, many more contingencies than produce instability and cover a much larger region. So effectively they become the real issues. Or stability. Is the -- I recognize the process as well along, but the question is: is there room in the future for taking into account these kinds of things?

#### **David Meyer**

Well, we're very -- we try to take both a near-term view and a long-term view here. We have an assignment to deliver a product in August. But we recognize that this is essentially a long-term process. And as Poonum mentioned, yes, the next deliverable in terms of the congestion work is supposed to be three years hence. But a lot of people have said don't wait that long, that this is the continuous process. And we appreciate that. And so we are going to be thinking what should this process look like as a long-term iterative process. And it would be important to set some goals about what are we trying to do in a long-term sense with respect to specific kinds of problems and what kinds of institutional changes are needed in order to support that. And in that sense we have benefited greatly from the help that we've gotten from the folks in the west who have organized themselves to do interconnection-wide planning, and we would like very much to see some more integrated work of that kind done in the east. Although we recognize the east is in a lot of the ways a much more complex area to do that kind of planning. But that's just one example of the kind of thing. And the area that you mentioned is another where we can --

**Audience Member**

*Robert Schlueter, Intelcon.* As a comment, I welcome your response. As a comment, we've done the eastern areas, and it requires multiple computers clustered and can be done very quickly by this technology. So it provides some options for doing these, so thank you.

**David Meyer**

Thank you.

**Audience Member**

*Mary Ellen Paravalos, National Grid.* David, to me your concept of constraint area sounds logical. And to the extent we can get that as part of the output of the Congestion Study that is really where I think it needs to be. I think it has the concept has a potential of inserting an extra step into the whole thing that I think might be troublesome. And so I think we need to take care of that. I want to suggest that it's not inconsistent for the DOE to designate a corridor and at the same time remain agnostic as to the solution. I don't see that as a conflict at all.

On the other hand, siting processes and environmental reviews, regional planning processes, these are the types of processes that cannot remain agnostic. These are the processes in which alternatives will be considered, and perhaps a corridor designation in the end is never even used.

My question is: Given the potential to lag, have the problem lag once you define a constraint area versus the time that the DOE may designate a corridor designation, there's a great potential to lag there. Do you have a concept of a timeframe by which you would want assurances that some real action was being taken place in response to the constraint area results coming out of the Congestion Study?

**David Meyer**

I don't think we would want to prescribe any particular term on that. I think we're all interested in moving quickly on these things to the extent reasonable. We would, I think our immediate request to people would be: Tell us what is happening on the ground in terms of finding solutions here, what is the state of play with respect to various possible solutions that have been identified as being at least potential. And we'd want to hear from relevant players about those possibilities.

On one of your earlier points, I agree entirely that the constraint area concept just grows naturally right out of the Congestion Study. In a way it's just -- I don't want to trivialize it, but it's the label you put on those results. So it's not intended to introduce by any means a new step in the process. I think it just helps to crystallize and focus the results coming out of the Congestion Study.

**Audience Member**

*Steve Naumann, Exelon Corporation.* I'd like to follow up, David, on both Craig and Mary Ellen's questions. I think this idea of identifying the constrained areas as the first step is good. I'm having a little trouble understanding the process to get from the designation of the constrained area to the designation or to the identification of the constrained area to the designation of the corridor. Who exactly is going to present the solutions to whom, and at what point does DOE kind of say, okay, that's it, we, DOE or someone else, not quite sure, has determined that a transmission solution is necessary or might be necessary to the point that

we need to designate a corridor? Or does it fall out we should designate a corridor but that doesn't mean that transmission is the only solution: There might be generation solutions or load solutions? And I think it's kind of the same question.

The other just quick question, which I'm not sure was covered under the congestion part is: Is one of the -- and maybe this is going into the -- if it's going into another session -- the issue of, for example, fuel diversity. I'm not sure if that's covered under the LMP analysis. Maybe one of the technical panels can ask that. But mostly this timing and who is the one who --

### **David Meyer**

Let me answer some of those concerns. Right now we have some requests in front of us that came in as part of the comments for either early designation or just plain designation, as a corridor. And we -- our intent, our intent is as soon as we can work out the mechanics of an appropriate process is to post those requests and open a docket and post those requests and invite people who are interested to give us comments about those particular requests. I mean the requests are associated with a particular project. Not always, there are some requests that don't identify specific projects. So we would invite comments from either the regional organizations or states or other companies operating in that area to give us their views on this proposal. And in particular their view about should it get a corridor designation. And we want to hear from those folks. Because we realize there are a lot of aspects of these things that need to be taken into account.

And if we find that, just hypothetically, that, yes, there is a regional organization in that part of the country and the regional organization says yes we've done the analysis and there is a major constraint area or major problem in this area and this project would go a significant way toward relieving it, well, that would get our attention and on the basis of further analysis and information or whatever, we might ultimately give that a corridor designation. Or we might not. We might say this doesn't, for one reason or another, it doesn't seem to meet all of the tests that we think ought to be applied.

So in terms of a process, we'll have a docket and we'll take comments and we'll make a decision. And we will try to -- we certainly want to take into account the views of people about the appropriateness of the designation in terms of meeting the need, in terms of the geographic scope of, an appropriate geographic scope for the corridor and secondly, finally, the timing issue. Is it time -- it could be that a lot of people will say well this project may have some merit, but there's some other non-wires alternatives that need to be considered and given a little more opportunity before we pull the trigger on this designation.

### **Audience Member**

*Steve Naumann, Exelon Corporation.* Thank you, David.

### **Poonum Agrawal**

I would add to that for informational purposes right now the requests that we receive for early designation have been posted on our website, as we formalize the process we'll ask for comments on those as David was mentioning.

And then to respond to your question about fuel diversity. In the analysis, we do have, particularly in the west, fuel diversity included in the scenarios that they are including and in the modeling; they have included

renewable portfolio standard requirements that various states are implementing, in the east it's a little different and we haven't incorporated those to that extent. But keep in mind also that we have criteria that we would use to make these designations as well. It's not limited just to the constraint areas or the Congestion Study information that's provided; we have criteria that we've proposed like fuel diversity, economic criteria that we would apply to the areas under review to make the designations as well.

**Audience Member**

*Joe Desmond, California Energy Commission.* I think Poonum is getting to what the general thrust of my comments here are going to be. Going back to the constraint area you defined a problem, I think the use of the term problem is fairly loose. It could be an opportunity, an objective or a problem reflected in the physical or economic congestion. And I was just looking for clarification here, legally, because I do think in fact you have that framework already in the existing designation Section 1221, for instance item 2 asks the secretary to issue a report designating areas, experiencing transmission capacity constraints. And so I think that certainly the commission has taken a very broad view of what a constraint is to include things like national security, Homeland defense, access to renewable energy, and fuel diversification. And I just wanted to hear I guess from you that, in fact, this terminology around a congestion area does, in fact, include those broader concepts. I think I just heard Poonum say that but that was the nature of the question.

**David Meyer**

Yes, we certainly intended, again, this is a nomenclature matter. We wanted a term that would, people would recognize but at the same time we want a term that is inclusive enough to cover the full range of things that we think need to be addressed here.

**Jody Erikson, Facilitator**

I'll let Poonum jump in; she's got some questions that came from the web and a gentleman there and then back to the back.

**Poonum Agrawal**

I'm going to just read a couple of these and see if we've captured them. The first question was what will the process be for requests for early designation? And I think you spoke to that. Is there anything else, David, you want to add to that?

**David Meyer**

No. Just that it is going to be necessary, I think, for people to, if they want us to consider an area for designation, they need to send us a written request so that we can post it and obtain comment and they should give us as much -- first they should identify the problem that they think qualifies for attention in this way and they may simply want to focus on the problem in the constraint area sense, or they may be interested in a corridor designation in relation to a specific project. So it's going to vary from case to case but in any event the more relevant detail they can provide obviously that's going to advance our process.

**Poonum Agrawal**

Okay. One or two more quickly. I think you spoke to this question to some extent. How would we determine and give opportunity to other solutions to be addressed before changing an electric transmission constrained area to a corridor designation?

**David Meyer**

Well, I don't think we would change from one to the other. I think they are different. I think you, as long as the problem that led you to designate the constraint area to begin with was there and unresolved, you would want to keep it in place. I can envision possible situations where you would designate a constraint area and you would get someone who would come forward with a partial solution and then somebody else would come forward with another partial solution and you'd want both. But you'd say okay with both, now we can lift the constraint area. At least and go on to something else. Go on to problems in other areas. So we don't envision the constraint area designation as something permanent. But it would be there as long as the problem was there.

**Poonum Agrawal**

Just one last question from the web before we move back to the audience. A rather long one: Would you consider regional market mechanisms, and how are they designed to solve capacity and reliability concerns through locational price signals rather than initially defaulting to transmission projects when considering designating a corridor? Why not give the markets a chance to work?

**David Meyer**

If regional organizations have set up market-based approaches, and we certainly don't want to disrupt or interfere with those kinds of mechanisms, we would want to hear from a lot of people how to work constructively within that process.

**Audience Member**

*Mike Heyeck, American Electric Power.* I want to echo the comments made. Thank you for holding the conference. Regarding the study, I'm not sure the marketplace or market signals are providing enough leadership in getting to a better energy position in the United States. For example, my question is really this: How does the study technically deal with the issue of beyond congestion and beyond reliability to anticipate generating requirements, wind energy potential, particular specific areas of wind energy potential and actually getting to a better energy position with new technology, nuclear or coal gasification? Is the study going to do that? It appears from the list of resources you're using, there seems to be a bit of a status quo even if it is a future year and congestion is really rear-view mirror. So I'm wondering where that leadership is going to come with respect to getting to a new energy position. Thank you.

**David Meyer**

Well, we have challenged the regional planners to look ahead, because we recognize this is, that transmission facilities have a very long lead time. And in terms of where do you need the new transmission, you can't ignore the question of where is the new generation going to be and what kinds of requirements should be anticipated. But what I'm finding listening to those people the planners who are trying to do this stuff, is that looking out 15 years is -- it's a lot tougher than -- I mean you can say you're going to do it but doing it and coming up with results that aren't laden with a lot of assumptions and various degrees of uncertainty, it is tough. It is a tough area to work.

And we're as eager as anybody to look ahead and take the longer term view. And so we're hoping to find better ways to deal with this. To me, one of the things that would be very helpful would be to find ways of

building into the analysis when you're doing these kinds of projections, building in some kind of indicators to tell you what is the scale of the uncertainties involved here? So that you would know pretty much all the time as you're reading through this document, looking over these results, you would never lose sight of the fact that, hey, there's a considerable amount of uncertainty here and is it big, or is it small, or is it something that has, something that's within the range of acceptability for the decision that you're trying to make.

So if you have particular ideas on how we should -- and some of these things, I think, we can do a better job on the next time around. That's one of the reasons we're eager to commence this next round, because we think it will be able to maybe focus a little more effectively on the long-term than we've been able to do in this particular round of the work.

### **Poonum Agrawal**

Just wanted to add to that, David. That we have a criterion proposed on the uncertainty and assumption, in the assumptions that are used in the different modeling and transmission plans. And some of the comments we received were along the lines of what you were saying, David, in terms of doing sensitivity analyses with those or doing a probabilistic analysis. The challenge for us in our current study is we're starting from ground one getting everyone together on the same page and currently they're disparate sources of information, different, as I was mentioning earlier, different approaches, methodologies, definitions, and terms. So this first round we'll do what we can based on what's available and what modeling we can do. And then as we move forward we'll take those into account, work with the regions and perhaps have dialogues on what level of data is really necessary in order to make the decisions that we need to make moving forward about these sorts of things.

Then the other thing you asked about was wind resources. And it's being considered in the west as I mentioned in their scenarios that they're looking at, and if you can talk to our team off line for more detailed information and in the east we're looking at a few particular sources in the Midwest and looking at what the access points would be for those sources, because there are currently no access points and what the congestion would be on those lines for the potential end markets that they could serve.

### **Audience Member**

*Les Pereira, Northern California Power Agency.* I was associated with a lot of the work of 1996 disturbances in the west. And it seems to me there's a lot of focus is on the 500-kV corridors or the higher voltage corridors from the generation site to the constrained areas. But I would request also consideration of the constrained area itself. And getting the power to the 500-kV is not enough. From the 500-kV to the load is another area which I think should be looked into for designating corridors. We have in California, for instance, two or three congestion areas and there are very high congestion costs as well as very high reliability, must-run generation which is required for reliability purposes to be on-line. So these are running like into \$850 million to \$1 billion for reliability must-run units and about half a billion or \$1 billion for congestion. So I think it's not enough to get the power, you know, to the 500-kV or the larger substations but you know there's also need to get it to the load, because when the voltage collapse, which may be triggering the collapses or cascading collapses, are quite often in the low-voltage areas and the congested areas. Consider requesting the constrained area itself and getting the power to the load as one of the designated corridors.



**Audience Member**

*Edward Tatum, Old Dominion Electric Cooperative - Virginia.* We're a not-for-profit co-op and tend to take a view of the customer. Again we thank you for the opportunity. It's always good to fly to Chicago. With regards to the constraint area, just to leave an impression, initial one with you, if I may. I think it could be helpful, but I ask you not to let it hold up this process. It seems to me that what we're trying to do here with the corridors and the discussion today is really an evolutionary process. It's taken a while for us to move from vertically-integrated monopolies to competitive market and this is another step in the way. I'm not sure exactly what statutory time frame you guys have for putting together these corridors, but I think we need to be mindful of that.

Perhaps a constrained area could be helpful in areas that both have an RTO and possibly don't have an RTO. The land where we come from, we do have an RTO and we're looking forward to developing a regional planning process that's open and inclusive of all stakeholders, such that that would be a piece of actually designating the corridor.

And we think we feel very strongly that's an important aspect to it. And we're blessed to have that opportunity for that regional coordination. In other areas where there aren't RTOs, perhaps identification of constrained areas can initiate the conversation amongst various stakeholders so I think there are opportunities to look at it that way.

The other constraint I wanted to express is the concept of generation and demand response as being alternatives for transmission construction. And the designation of these corridors. I would hope that if we designate a corridor that we know good and well that we're going to put transmission somewhere within that and that we reserve that important designation for things that we know are indeed going to go forward. I submit that the valuation of generation demand response alternatives would be taken care of well before any type of corridor designation, and I hope that we remember that transmission is not a competitive commodity against generation and demand response. Thank you.

**Jody Erikson, Facilitator**

We've got about 15 minutes left and I've got one, two, three, four people and I'd like to get a couple more web questions.

**Audience Member**

*Kim Erickson, Xcel Energy.* I'll talk really fast. We have transmission in places like Minnesota, Wisconsin, Texas, and Colorado. There, state regulators think they get to decide among solutions. So I'm a little bit uneasy with the comment that the Department of Energy would play that role of looking at different solutions and deciding the need when our state regulators have pretty strong statutory authority that that's their role.

**David Meyer**

Well, we recognize that state regulators have those authorities. And we certainly don't mean to insert ourselves in their place. Nonetheless, we have this authority that we're to use, not -- I think the thinking in the Congress's idea in enacting this legislation was that these corridors were to be designated in fairly -- this tool was to be used sparingly. This isn't to be the primary mode by which we site and develop major new interstate transmission facilities. So it's to be used in situations where it would clearly add value, where there

is a very strong need. And we're not picking the solution literally in making the designation. But there are consequences, it appears, from designating these corridors. They do change the context.

They're going to change the context for a prospective developer; they're going to change the context for state regulators. It will -- the state regulators, I think, they will still have their decision to make, but it is going to be relevant to that decision that the federal government has said this area, this problem here is a significant problem.

And as I say we would not necessarily -- we wouldn't be in the position of proving a specific project. We would simply be designating a corridor in relation to in some cases at least in relation to a specific project. But the state regulators will still have their decisions to make. And we want to work very closely with them. We want to understand -- we want to be sure we understand the linkages here between decisions we would make and the authorities that they need to exercise and the choices they're going to have to make.

**Audience Member**

*Ken Gates, Pepco Holdings (PHI).* As I understand at least one of the concepts I've heard proposed here this morning is that Department of Energy would identify constraint areas and then would perhaps wait for projects to be submitted to you to resolve those constraints?

**David Meyer**

No, not submitted to us. They would be resolved most -- presented most likely to regional organizations in the RTOs or ISOs or other -- if in the case where there are not RTOs or ISOs, then we would want to hear from say the regional councils. At a minimum, our concern is to be sure that a proposed addition to the network, if it's intended to have -- if we start out with a reliability problem and someone comes forward with a possible solution, we want to know would that solution indeed solve the problem? Would it have -- we want to be sure that it wouldn't have adverse unintended consequences for the functioning of the grid. And so, in that sense, we are going to be very interested in how regional organizations of various kinds look at proposed projects.

But they would come to us with a request for a corridor and they would go somewhere else for somebody to literally approve their project.

**Audience Member**

*Ken Gates, Pepco Holdings (PHI).* Okay. Let's say they went to an RTO with a proposed project. Within one of your identified constraint areas and the RTO felt that significantly resolved the constraint, they would then come to the Department of Energy or maybe even earlier, the timeframe I won't address in this question, but they would come to the Department of Energy and ask for a corridor designation for their specific project. And if that's a correct understanding, I guess one of the questions I would have then also is suppose more than one entity came to you with a request for a corridor designation, both projects of which resolve the constraint but could be considered competing projects, would you be considering giving both projects a corridor designation and then seeing which project ended up coming to fruition, perhaps?

**David Meyer**

That's a possibility. I think we're going to respond case-by-case to these things. I think we do want to be a little sparing in these designations. We don't want to cheapen the currency, as it were. We would want to hear from, again, a lot of different players about the appropriateness of choosing between the two projects that you mentioned or should we simply back off, should we hold off, not make any designation at all for some period, waiting for further information of one kind or another. I could see just a lot of ways that it might play out. And we'll -- I come back to the point that we want to exercise this authority skillfully and effectively. Productively. And so it's going to mean a lot of dialogue.

**Audience Member**

*Jodi Moskowitz, PSEG, in New Jersey.* I wanted to get back to your discussion, you talked about for those projects that have sought early designation, early corridor designation. You were saying you're going to open a docket and then solicit comments. Could you talk a little bit more about what sort of criteria you'd be applying in determining whether a corridor or a specific project should receive this early designation? For example, will the DOE be engaging in its own cost-benefit analysis of say a particular project or would it look to, if there's an RTO in the region, would it look to whether the RTO conducted a cost-benefit analysis? Could you speak a little bit about that? Thank you.

**David Meyer**

I think we will go into those kinds of questions a lot more in the two panels, yes.

**Poonum Agrawal**

Except, David, we could just add that we would apply the same criteria that we would use for a regular designation to an early designation. The only difference would be whether there's an expression of an urgent need there that warrants some expedition in the review of that proposed corridor.

**Jody Erikson, Facilitator**

Two more people, I'll go to Poonum, and then we'll take a break.

**Audience Member**

*Kevin Coates, Composite Technology Corp.* I wanted to give a little bigger picture view of what's going on here. I've been looking at the energy situation, macro view for the last several years, looking at the oil constraint problems around the world. I come out of the world of high-speed magnetic train levitation technology. And I'm saying, what I'm seeing in the future is probably more electrified transit between cities in this country rather than a reliance on airlines, especially for distances of 500 miles or less.

That being said, it seems to me that the Department of Energy and the Department of Transportation need to be talking to each other about getting right-of-ways as straight as possible for high-speed inter city connections that run on electricity. And you know I know the issues here with, that exist with right-of-ways with transmission corridors, I know it's even worse with transportation corridors. But it seems to me that the electricity industry needs to be thinking about combining the right-of-ways with the new transportation right-of-ways that I think are inevitable. I wanted to throw that out there for the audience.

**David Meyer**

Thank you.

**Audience Member**

*Larry Salomone, Washington Group International.* Follow-up question to the earlier question about additional sources of power coming on-line. My question deals with the selection of 2011 as one of the model years. Because in the Energy Policy Act, and DOE's NP-2010 program, the NRC is expecting 11 applications for 18 units which could be 20 to 30,000 megawatts added. Most of which are in the SERC region.

Do you think the selection of 2011 could be a problem since most of that power could come on line 2015, therefore why wouldn't 2015 be used in the east like the west?

**David Meyer**

Steve, do you want to speak to that?

**Steve Henderson, CRA**

The selection of the 2011 for the east was mainly driven by what was available for the modeling purposes, that is, the MMWG base case. We needed to work off of that. If what you say is true and I have no reason to doubt it, you know it's certainly relevant. It's just one of those things that we may not be able to do, you know, this time hopefully as we improve the study process going, or as DOE improves the study process going forward, that kind of thing can be taken into account. But for now it was based, the selection, 2011, was based on the power case that was available.

**Poonum Agrawal**

What I would add to that, and Steve correct me if I'm wrong, is that we do take into account potential new generation that is being proposed in the regions and so we account for that analysis in the future modeling.

**Steve Henderson, CRA**

Right. We would have whatever the projections were for the generation on-line in 2011. But if it were the case that significant amount of generation was going to come on board in 2015, that we wouldn't see in 2011, yes, we're missing that, that's true.

**Poonum Agrawal**

The other thing I would add, we have to do this analysis every three years, and so presumably we will have more up-to-date information in each subsequent round, and we would take into account the power flow situation based on new generation retirements at that point as well and that too could impact whether a constraint area remains a constraint area or whether the constraint is eased.

**Jody Erikson, Facilitator**

Poonum will ask the last couple of questions off the web and then we'll take a break.

**Poonum Agrawal**

Okay. Question from the web. Many areas of transmission congestion exist on transmission lines owned by power marketing administrations. One specifically identified and pointed out how would DOE deal with those. I'm adding that question, and then the specific question here is: Would the federal government fund the upgrade of PMA lines?

**David Meyer**

I think the upgrades will be funded in the normal way that they are funded in those PMAs. I don't anticipate that we would modify the funding process. In the case of the PMAs, they do, in some cases, they do their own planning and in some cases they work with others in their region. I think we're just going to have to respond to particular cases as they emerge.

I think the constraint areas can be identified and then when clearly a PMA is closely involved and we'll deal with that situation as that particular situation as things are appropriate then.

**Poonum Agrawal**

Okay. One last question, what would be the reaction of DOE to a request by a transmission development entity to have a corridor designated?

**David Meyer**

Transmission development entity? I'm not sure -- that could be, that could cover a lot of possible situations. But offhand I wouldn't see any reason why we wouldn't entertain those requests the same as from any other party.

**Poonum Agrawal**

Okay. We have one other question which we'll take in the criteria section.

**Jody Erikson, Facilitator**

Great. Thank you all. That was very useful discussion. Great questions. Take a break. Be back at 15 past.

**SESSION 2: How Can the Designation of Transmission Constraint Areas and National Corridors Add Value to Existing Planning and Siting Processes?****Jody Erikson, Facilitator**

We're going to start on session two, which is focusing on questions about the connection between the constraint areas and the value of existing planning and siting processes. We have a panel to talk about their comments and then we'll do some questions and answers. This is an opportunity again to really explore these ideas, to get clarifying questions to go beyond the comments that you submitted and delve into the issues of regional planning processes.

So if you want to go in the order that you're there on the agenda that would be great.

**Ricky Bittle, Vice President of Planning, Rates & Dispatching, Arkansas Electric Cooperative Corp.**

Good morning. My name is Ricky Bittle. I'm with Arkansas Electric Co-Op (AECC). For those not familiar with Arkansas, it's pretty much a little square, but it really sits as a seam between SERC and the SPP. Even though Entergy at the time most of the transmission was developed really was within the SPP, there still really is a seam along the western border of Arkansas.

So most of my comments really relate to the aspect of looking at this concept of constraint -- constrained areas as far as the seams are concerned.

Since that's one of the major things that really impact AECC; AECC has load and generation both in the Entergy load control in the AEP load control and in the Southwest Power administration load control area. Southwest Power administration and AEP and are both within the SPP and Entergy is within SERC. We see a lot of things from the perspective of the seam.

Now we think that the regional planning that is being done is done in a very effective manner, but the main thing it does is look at reliability and does not look at the economics of some of the small areas. And I think this concept of constrained areas will really highlight some of the areas that really need to be looked at. And I think this needs to be looked at not just from a regional perspective in that you're developing costs and looking at the region, the impact on some of the small consumers within those load control areas can be very dramatic.

You could have a doubling of a price in a small area and actually have very little impact when you start looking at one of the larger regions.

And so we think that you need to look at those kinds of things when you start deciding how to use these existing planning processes. Now, we think that they really do highlight the areas and you can find within those studies the areas of weaknesses within the studies. You can also get an idea of how much transfer capability there is between areas. In Arkansas, when you start thinking about it, as far as the interconnections between AEP and Entergy, there are three primary ones within Arkansas: one in the north, one in kind of the central, and one in the south. The area where the highest load growth is concerned is probably up in the northwest corner of Arkansas, but it also has the weakest interconnection across the seam.

So those areas will be served from a reliability perspective, but from AECC's perspective of trying to serve its load across that seam, it presents some unique considerations.

We think that in order to give deference to those planning from a regional perspective, that really the planning process needs to be number one independent, that it is someone who is looking at it from the higher level perspective. And I think the one thing that I like about this national perspective is that it really does start to bring down some of the areas that really need to be looked at. I think that you need to be able to identify load pockets and you need to look at this whole question of cost. Because when you start defining the cost allocation process, you also are starting to define how the planning is actually going to be done.

And in any allocation scheme, there are going to be free riders, it's just a matter of who they are. If you go all the way to a radical participant funding then it's the local transmission owners that are the free riders. If you go all the way to a postage stamp, it's going to be whoever is the new requester of the transmission.

I think that when you're looking at a non-market, you also need to be able to come up with some of the indicators that might be an indication that there are some things that need to be taken care of. The number of TLR events that are occurring. The number of transmission service requests that are being turned down on a specific interface. When you look at the load pockets, you can either look at high congestion costs or you can

look at must-run units. Then you also need to be able to look at whether there are things that are disproportionate about the cost impacts of a service request. You can get service requests for an extremely low megawatt value that have an extremely high cost.

So that could be another area you want to look at. And then you would also look at the amount of energy that is actually coming from out-of-order dispatch.

Now the other thing that I think would be useful when you think about some of the things that we need to take into account in Arkansas, there are large areas of national forest. Having corridors through national forest or federal lands of any kind would be one of those issues that could be of use as far as being able to get through some of that. Because that's really one of the areas that is really most difficult as far as siting of transmission is concerned. Thank you.

**Jody Erikson, Facilitator**

I believe Larry Chapman is speaking for Diane Grueneich.

I thought Joe Desmond was next. Joe, please.

**Joe Desmond, Chairman, California Energy Commission**

I gather we're holding questions to the end. A couple things: I wanted to address the topic here about specifically the value of this approach and the value of the study and start by way of an example.

Although my previous comments focused on expanding the definition of capacity constraint, whether it's applied to an area or a corridor, I want to also point out we're seeing immediate value in the results from the congestion studies that have been done so far.

For example, the Western Congestion Area Task Force Study looked at observed flows and projected flows and there are two paths of particular interest to California, Path 66, Pacific AC intertie, the California Oregon border from northern California, and Path 65, which is the Pacific DC intertie.

I say we're seeing important results already because based on both the observed flows and the projected, that Pacific AC intertie will exceed 75% of its operating transfer capability 85% of the time by 2015.

The DC intertie will exceed 75%, 95% of the time. So it would suggest almost immediately moving to address this problem. But it has helped us because as we've been looking at the designation of corridors and projects to access renewable energy in the central area, specifically Tehachapi, what it's already enabled us to do is to identify the need to consider east side connections out from Tehachapi elsewhere in order to avoid creating this very condition. So we're seeing immediate benefits from this process and I want to thank the DOE for that.

Secondly, how does designation add value? I'll tell you and I'll be honest California still lacks a well-integrated proactive transmission planning permitting process. Let's say we don't do it but it could be better. So we view it as both an opportunity to learn from the information and the comments provided by other states, control areas, transmission development firms, as well as to contribute what we have done and

what we think we do well in terms of identifying these alternatives, how best to approach them and really putting in place an open collaborative process.

We are right now in the middle of looking at a statewide approach to corridor designation. And so in that sense we see three elements. Those elements are: A corridor identification process has to be again open, transparent, and engage all stakeholders. The second component is the designation authority and the transmission corridor designation; that is, state designation for state lands, because it will provide utilities with future permitting certainty and an incentive to acquire the land for future system expansion. And the third element there for us at the state level is land acquisition and banking. And we think these are the same similar elements that probably need to fit within the Federal NIETC corridor designation as well as tying that into the relationship that exists under Section 368 and looking at corridor designations for energy purposes.

We see a lot of similarities, in fact, in the relationship between that corridor identification and the corridor designation that we think also mirror some of that.

So, in that sense, as we go through we see the same set of obligations. At a state level it's local government concerns, how we're communicating these designations and notifying them, who pays the cost, what's the process, the process either for not so much an appeal but questioning the criteria used, similar relationship exists between the federal and the state relationship.

And so I'll wrap that up again just with a couple final comments as it relates to this. We strongly believe obviously as we've said earlier that national interests, electric transmission corridors, should be defined in relation to the anticipated electrical path needs recognizing that the notion of a capacity constraint or congestion will adversely affect customers, has to include important state goals, such as the deliverability of remote renewables to load centers, as well as national interest goals for energy security and decreasing that dependence. We welcome the opportunity and process. And want to thank the DOE and everyone else involved because, as I said, we're seeing immediate benefits from this. Thanks.

**Jody Erikson, Facilitator**

Thanks, Mr. Desmond. Mr. Chapman.

**Larry Chapman, California Public Utilities Commission**

Thank you. Commissioner Grueneich couldn't be here today, so she asked me to fill in for her. She asked me to cover five points in these hopefully brief remarks and they sort of address the four agenda questions, not in order, but from what her standpoint are the most important ones.

So we're going to start with the fourth bullet point relating to complementary or supporting actions by DOE. First of all, California Public Utilities Commission believes that DOE needs to coordinate very closely its process for designating NIETCs with the multiuse corridor designation process for the lands in the west that's already underway pursuant to Section 368 of the Energy Policy Act. The Section 368 process will include an environmental review essentially pre-approval of routes for transmission and other energy projects through federal land which will make the state's job of siting new transmission not just in California but throughout the west substantially easier and will serve to accelerate the development of needed projects, regardless of NIETC designations.



Accordingly, in the west it makes sense for the DOE to complete, in our view, to complete the 368 process before any corridors are formally designated. Now, the notion that Mr. Meyer raised this morning of the ETCAs is actually a very fruitful one in our view. We believe that you can have potential designations or possible designations through this ETCA process. That would allow the 368 process to be completed. Then once you've got the 368 process completed it may be appropriate to designate specific NIETC.

So I think this concept that was articulated this morning gives us the ability to be a little more seamless in going from the 368 process to corridor designation.

Second point. In response -- this is the second bullet agenda addressing which aspect of the regional planning processes we should consider. The CPUC believes DOE needs to give the highest priority. I'll say again the highest priority to the designation of transmission corridors that enable the achievement of state and regional energy policy laws and objectives, especially where state and regional transmission planning requires assistance. Of particular concern to California in this regard, and I'm sure Joe Desmond would agree, is our renewable portfolio standard, which mandates that 20% of energy of energy - not capacity but energy - in California be by the year 2010 be from renewable sources. To implement this law, the CPUC and CEC collaboratively promulgated an energy action plan which was just updated a few months ago. This energy action plan specifies a prioritized loading order for the development of needed energy resources. Renewable resources topped the list, but they're often constrained and distant from load centers. For this reason, new transmission will be essential to achieve our RPS goals.

Third, and this addresses the first question on the agenda, in conducting its process for designating NIETC, DOE should give considerable weight and defer to ongoing regional and state transmission planning, congestion management and resource planning processes. We've pointed out in our written comments what's going on in the western interconnection, and I think Rob Kondziolka is going to talk about that in some detail.

The fourth point we want to make is regarding the third bullet point. DOE needs to recognize there's no absence of regional transmission planning in the west. More new transmission circuit miles have been built in the western interconnection than any region in the country. We're very proactive, moving forward.

The final point we want to make addresses the, again, the additional complementary and supporting actions that DOE can take. Coordinated expedited project review is not only central to DOE's Section 368 initiative, but it's also equally important to give the permitting timelines for all transmission projects in the west whether or not it will be located in a designated NIETC. All proposed transmission projects in the west across federal lands, and therefore be subject to review underneath, would benefit greatly from enhanced coordination and responsiveness and federal agency review much more than they would benefit from the formal designation of NIETCs. This is particularly true in connection with projects that would traverse national forest lands. We've had some problems with the forest service in getting the collaborative joint state federal siting process going. So DOE can do a lot to help us in that regard and move that process along.

Thank you. And if there's further I can answer in questions I will.

**Jody Erikson, Facilitator**

Thank you, Mr. Chapman.

**Sandra Hochstetter**, *Chairman, Arkansas Public Service Commission*

I'm Sandra Hochstetter, currently serving as the chairwoman of the Arkansas Public Service Commission. Today I'm representing NARUC, The National Association of Regulatory Utility Commissioners. For that reason I'm going to be highlighting some of the key elements of their comments and concerns as responses to questions number one and two for this panel.

And I think you first have to start with the law, which is Federal Power Act Section 216 that requires DOE to consult with at least two parties: The affected states and regional entities. 216 gives interested parties including affected states the opportunity to provide alternatives and recommendations to DOE as they develop their Congestion Study that designates NIETCs, more particularly, prior to designating a geographic area as a NIETC, the secretary is required to consult with the affected states and regional entities while the study is being conducted, issue a report based on the study and only designate an area as a NIETC if there are specific findings that consumers are adversely affected and that they're allowing the interested parties, including affected states, to provide alternatives and recommendations.

Then you get to the issue of how much weight should those recommendations and consultations play in the process. And NARUC believes that DOE should rely on the studies and analyses resulting from adequately independent regional transmission planning processes conducted by entities such as RTOs, independent system operators, ICTs, and where and when appropriate, regional reliability organizations.

The DOE should not duplicate existing regional planning exercises where those exercises produce independently-prepared transparent and valuable information. The findings resulting from these exercises are generally based on the best available data that has been sifted through a rigorous and open, broad stakeholder review process.

We believe that DOE should rely primarily and principally on recent transmission studies performed through these independent regional transmission planning processes.

These independent regional transmission plans should include those plans prepared for both reliability and load growth purposes as well as economic upgrade purposes, which has been previously mentioned. This way the regional plans can be used for every element of the DOE's congestion analysis.

We further believe that DOE should defer to the outcome of certain existing planning processes. Several areas of the country and about half the states have RTOs, organized wholesale markets, regional state committees, and very involved state commissions. The resulting regional plans that are produced in those areas and through those processes work in tandem with existing market rules designed to provide a level playing field and assure that resource owners of all types, whether it's generation, demand response, or transmission, can compete on a level playing field in an efficient market. Ratepayers are best served by allowing those regional processes and regional markets to establish the value of electricity.

As an example, the northeast RTO's plans require identification of all upgrades needed for reliability as well as cost efficiency improvement. Correspondingly, all critical NIETCs within the footprint of existing RTOs and similar regional planning bodies should, by definition, be included in the regional transmission plans. Consequently there should be no need to make additional NIETC designations in such areas. DOE should defer to the expertise of the RTOs and stakeholder processes in those regions where adequate regional planning exists.

When I use the term "adequate," I mean sufficiently independent, transparent, open, collaborative, and inclusive. Meaning including multiple parties, that being transmission dependent utilities as well as wholesale market participants and inclusive of broad-based regional options for efficiency and cost savings opportunities. We also had some concerns with respect to early designations which I won't go into, although we do believe that DOE should look at factors such as persistent and substantial congestion and refrain from interfering with the results of adequately independent planning processes. And I will welcome any questions you have later. Thank you.

**Jody Erikson, Facilitator**

Thanks, Sandra.

**Rob Kondziolka**, *Salt River Project and Chairman, Western Congestion Assessment Task Force*

Good morning. My name is Robert Kondziolka with Salt River Project. I chair the Western Congestion Assessment Task Force. Referring to transmission congestion, not the congestion in my head this morning.

Implementation of the Section 1221 needs to be fully integrated with regional planning processes, whether conducted by RTOs or other institutions. These processes need to be robust and open to all stakeholders, rely on publicly-available data, and perform transparent analysis. And where these processes exist, it's been established DOE should rely on their analysis.

We could go on to the next one. This is a diagram of the western interconnection and the existing subregional planning groups. I won't go into the distinction right now. The subregional planning groups tend to be geographically-oriented, whereas the western interconnection has the high-level perspective. WECC, which is the Western Electricity Coordinating Council, has the reliability responsibility for the entire western interconnection. And they have recently taken steps to establish a westwide transmission expansion planning policy committee to evaluate interconnection-wide congestion and economic expansion options.

This committee will be broad-based and have open participation through a stakeholder advisory group to facilitate essential involvement by regional planning experts including state provincial energy offices, regulators, resource and transmission developers, load-serving entities, environmental and consumer advocates.

Also within WECC there are two key elements within the planning coordination committee that are appropriate: One is regional planning, and the goal of regional planning is intended to avoid duplication of projects and allow a new project to integrate the needs of others. The other is the path rating process. This is a process to assure that a proposed project has a rating that is secured as it gets developed and also to ensure that the existing system is not negatively impacted.

Next slide. The planning pyramid. As is indicated, most of the work occurs at lower levels. However, the regional planning, that top level, ensures that comprehensive identification of potential interregional needs are identified.

The west-wide effort consists of high-level screening studies of different scenarios. These scenarios range from book-end analysis, state provincial regulatory, resource requirements and other anticipated outcomes.

The information is provided to the subregional planning groups to allow alternatives and comparative analyses. More detailed electrical studies and evaluation of the downstream issues associated with major expansion and integration into the underlying system.

Can we go to the next slide? This is where we tie it together. I think this is very consistent with the comments that were made by DOE this morning, and this should be read from the top on down. When implementing 1221, DOE should establish a process that includes several steps to integrate 1221 requirements into the existing planning and siting environment. The process should allow the identification of roughly broad congestion cut planes that are progressively narrowed as projects and new information are developed and ultimately lead to a well-informed NIETC designation. The first one you do the study work and the next element you go into the more detailed studies, subregional, regional analyses. Alternative evaluations. And then lastly you move into the NIETC designation.

I'd like to end with recommendations to DOE for the overall. DOE shall participate in and support open transparent regional and subregional planning processes. DOE should provide workshops or forums to address studies, plans, needs, benefits and potential projects by the designation of potential NIETC designation. The purpose of the workshop and forums will be to track progress of work by industry and stakeholders by NIETCs and relief of congestion.

DOE should offer to coordinate federal agency reviews with state siting processes. DOE should offer to provide testimony on purpose, need, and route preference at local, state or regional siting hearings. Obviously DOE is not a project sponsor and should only be responsible for addressing the elements related to Section 1221 and NIETC designation. And, lastly, Section 1221 and 368 designation processes should be fully coordinated so that cut planes of potential national interest are identified prior to 368 designation. This allows the necessary land use decisions embedded in 368 to be fully informed by the information on the need for new transmission development in 1221. We recognize this may be difficult given the statutory deadlines of 368. In the 368 process, priorities should be given to finishing the necessary land use plan amendments for corridors that alleviate congested cut planes of national interest. Thank you.

**Jody Erikson, Facilitator**

Michael Robinson.

**Michael Robinson**, *Project Manager, Transmission Planning, Southern Company Services, Inc.*

Good morning. My name is Mike Robinson, project manager for Southern Company and our transmission planning department in Birmingham. I have responsibility for tariff studies and regional planning for Southern Company encompassing the areas of Georgia, Alabama, Panhandle Florida and parts of Mississippi.

Next slide. First I'd like to thank the Department for this opportunity to speak today and share Southern's thoughts on the Congestion Study and NIETC report. Southern supports the efforts of the Department in performing the Congestion Study and report because it has merit.

In performing the study, we feel it's important for the department to utilize existing expansion plans and studies as much as possible. These studies are performed by seasoned, knowledgeable staff, professionals that work for the utilities in the region. And nobody knows these areas more than these people that do these studies.

Many of these studies are the product of regional efforts between neighboring utilities and are a good indication of corridors that may be considered for designation. However, consideration should be given to the timing of these studies, as the results can become stale due to the dynamic nature of the transmission system and changes in fuel cost assumptions.

As Southern stated in our initial comments to the Department, we generally support the draft criteria that the Department has laid out considering potential designation corridors. We particularly support the inclusion of draft criterion one that addresses the need to maintain high reliability when considering corridors for designation.

Maintaining the reliable operations of the grid remains paramount importance. And this Congestion Study should consider the ability of the transmission system to reliably meet firm customer demand in accordance with NERC reliability standards. It's a key aspect of existing interregional studies that we do because nobody wants to be impacted by the poor performance of a neighboring system.

We commend the Department for including this criterion and feel this criterion should be an important, this should be a strong consideration in determining whether to designate any areas NIETCs. Southern feels the designation of corridors in NIETC should not be the final word and not be interpreted as conclusion by the Department that transmission or wire solution is optimal means for addressing a constrained corridor. Because states and transmission providers have an obligation to provide low-cost, reliable service to network and retail customers the Departments who consult these parties in the process of performing the Congestion Study and deciding which areas are appropriate for designation.

We feel it's important for the Department not to over-designate, as over-designation can dilute the importance of naming corridors within NIETC. In the process of consulting with the states, regional planning entities and transmission providers, the Department should consider alternative solutions when designating corridors NIETCs. A wire solution may not always be the best or appropriate solution for relieving congestion in a particular area. For example, the siting of new generation or construction of a new natural gas pipeline can be sometimes less expensive than the construction of new transmission.

Regional planning is an important aspect of Southern's transmission planning process. Our goal for regional planning is to promote coordinated transmission planning on a regional basis to define near- and long-term transmission needs, consistent with NERC reliability standards, applicability reliability agreements and regulatory agreements. Southern and utilities in the southeast - many represented here today - have

participated in regional planning activities for a number of years. Currently we participate in studies with each of our neighboring utilities on an annual basis. These studies include transfer studies, generator interconnection studies, transmission service studies, load-serving studies and expansion studies.

Southern supports the Department's efforts in the development of the Congestion Study in the NIETC report. We support the national scope of the study incorporating the entire eastern interconnect. These types of transfer analyses are not considered in typical interregional studies. We feel the designation can play an important role in highlighting where there's underlying congestion. Most important, Southern feels the designation is an important means for providing backstop authority when transmission providers run into or encounter problems.

Once a corridor has been designated as NIETC, we support the implementation of wires and/or non-wire solutions where the states market participants and transmission providers have determined that it's economically beneficial to do so. Thank you.

**Jody Erikson, Facilitator**

Thank you Michael. Bill Whitehead.

**William Whitehead**, *Manager of Transmission Planning Policy, PJM Interconnection*

I'm Bill Whitehead with PJM. My initial remarks will be on behalf of the six members of the ISO/RTO Council or IRC that filed joint comments in the DOE NOI. Then I'll make few comments specifically about the PJM and I'll differentiate.

The ISO/RTO Council, echoing comments this morning, we support the idea of the corridor designations obviously, but we also believe that the corridor should be designated based on the eight criteria that were designated in the NOI that the DOE put out earlier this year. You know, we think it's important that you consider all the aspects of the designation and then provide the designation based on all the criteria.

We also, to echo again some of the comments that were made, we think that the ISO/RTOs have planning processes that have not only, that are not only independent now, but the planning processes have been developed over the last few years based on adequate stakeholder input. We believe that the planning processes themselves provide the open and transparent information that's necessary to help make decisions and we also believe that the planning processes themselves deal with not only the determining what the problems are, but also with looking at the solutions and considering all the various solutions that are available so that when we reach the point where we're requesting designations for corridors or where we feel that the information that we have provided is necessary for corridor designation, we've not only considered what the issues are and how these criteria are met, how the eight criteria are met for designating corridors, but we've also looked at some of the alternative solutions where we've looked at solutions that have been proposed and at that point we feel that the planning process has done a complete job of looking at both the problems and the solutions.

We think basically that you know we stand ready to provide the support from the planning processes, we feel what DOE should do is look at the planning process, satisfy itself that the planning process is open transparent and independent and then based on that feeling that the processes are open transparent and

independent the DOE should feel free to use the results, infuse the resources that are at its -- that are available to it -- through the independent ISO and RTOs.

Again, we support the idea of these, the earlier concept of the corridors being complex transmission paths that are you know go from essentially areas to areas. You know, these are typically the way things are done in the planning business. You look at interfaces. You look at the ability to satisfy reliability criteria, economic criteria and other things across various interfaces in the planning process.

To switch now to a few comments specifically to PJM, and if you go to the next slide, obviously you're aware PJM did request for designation of a couple of corridors. We did that based on analysis that we've been doing over the last few years. You know, again, we feel that the corridors are important. They are the result of a lot of analysis. They're the result of a lot of information that's been published over the last couple of years. Not only in the planning process but also in our market monitor, market report related to the congestion and other things that have come up related to transmission and the needs for transmission.

Our concern is that, and you know basically we've heard a little bit today as well, our concern is that, you know, we're trying to balance certainty with flexibility and certainly over a 15-year planning horizon, you know, it's difficult to attain certainty but you must go with the best information that you have. And then you know try to use that information to put together a plan that deals with the uncertainties as well as possible.

Our concern is that not making decisions or delaying decisions: there's a cost to that. There's the potential for unfortunately a decision that is not made today may in fact be a decision that's made in the future because you run out of options: transmission takes a long time to build. Takes a long time to site. Takes a long time to build and there are siting processes at the state level that need to be factored into this as well. And you know the states are certainly going to be involved as we go forward and they'll be looking not only at the line route itself but also at the reasons for why the transmission is necessary.

So we would just like to encourage that the corridor designations in the concept of corridor designations moves to move forward as expeditiously as possible and again we stand certainly - the ISO/RTO Council and PJM for which I spoke of the last few marks - stand ready to provide whatever support we need to in our independent processes to make that possible. Thank you.

**Jody Erikson, Facilitator**

What we're going to do for question and answer, I'd like to open it up specifically to DOE give them an opportunity to ask some questions of the panel first and then we'll open it up to the whole room. And again focusing on this particular issue, which is the link to the regional planning and siting processes.

**David Meyer**

Okay. Thank you. Thank you to the panelists. Let me say that in establishing this panel and focusing on planning, we wanted, among other things, to indicate our awareness that the Congress did not intend to establish DOE as a planning agency. That's not part of the design of this legislation.

So this means that, and yet the decisions we have to make here are extremely interrelated with ongoing planning analysis. So that means we have to be working with the planners pretty closely. Now, we have a lot

of -- there are a lot of differences between the way planning is done in different regions, different parts of the country, different organizations. So there's a lot of heterogeneity out there. And it's probably no surprise that none of these processes are perfect. And so I want to ask each of the panelists: what are the top two or three things that you need to work on in terms of your process to, what are the near-term improvements that you're striving for?

And I'm also going to invite the audience to respond to that same question when we get to the point of opening up to the audience, because I want to hear from them about what they think are the critical improvements that need to be made to these planning processes.

**Panel Member**

*Bill Whitehead, PJM Interconnection.* Well, I'll try to answer that question first. I think number one on our list, that while certainly we have a pretty well developed planning process we know that it needs to be, you know it needs to be more broadened. We've generally concentrated on fairly short timeframes in the past few years. We have just recently made some significant modifications to the planning process to take the reliability evaluations out to 15 years, but we're working very hard on making a market efficiency or an economic planning process that is more robust and provides more solutions in the market efficiency or economic side than what we currently have.

And I would say the second thing or certainly the second thing we need to continue to work on is our work with the other ISOs and RTOs the coordination not just within PJM of various solutions but coordinating across boundaries with New York, New England, ISO and TVA and others so we get solutions that are more, you know, that are beneficial not only within PJM but across the borders with others.

So I think from our standpoint I would say those are the two things that we're really looking to improve over the next several years.

**Panel Member**

*Joe Desmond, California Energy Commission.* When I spoke earlier about the state lacking a well-integrated proactive transmission planning and permitting process, I was really referring to trying to link those permitting and siting with the planning. The California ISO does a good job along with footprint utilities within our area engaging in any number of these regional transmission planning forums. So I want to make that distinction.

I say that because when we meant proactive, we're referring really to how can the state move forward in assessing these needs to achieve more of the strategic objectives. It's not so much the reliability. I think the processes are clearly defined as to how to identify and get these projects to prove and moving. But it's really the strategic objectives related to economic growth, fuel diversity, and renewable energy. So having done that, excuse me, having said that, then it is internal to the state reconciling the process we have the PUC we have independence, municipal utilities who take a different approach to these and making sure it reflects what the state's overall objectives are in meeting its future requirements. So that's what I was referring to when I --

**Jody Erikson, Facilitator**

Can you say your names; I think for the record it's easier for the transcriber. That was Joe Desmond with the California Energy Commission.



**Panel Member**

*Sandy Hochstetter, Arkansas Public Service Commission.* I'll have to wear my chairman of the Arkansas Public Service Commission hat, since if I was representing NARUC, I'd be talking about all 50 states.

Arkansas, as Ricky Bittle mentioned, it's kind of a bifurcated state from the standpoint of regional transmission planning processes. We have both non-RTO area as well as a potential RTO area.

Within the non-RTO area, which is the Entergy area, they have an ICT proposal pending at FERC but it hasn't been approved yet. I would say with respect to that type of a non-RTO region, some of the deficiencies would be the scope.

And I think looking at a broader scope and more coordination with joining utility territories would be helpful. Having some independence and transparency involved in the process, being sure to include multiple stakeholders, particularly TDUs and wholesale market participants. And also looking at economic upgrades. They do a great job of handling reliability, but the economic upgrade potential I think is something that's missing in the non-RTO regions. In particular, I'm talking about potentials to save money in our fuel cost pass-throughs and looking at ways to maybe bring in coal-by-wire or whatnot to reduce the fuel component of ratepayers' bills. On the RTO basis, as was mentioned, the interregional coordination and the seams issues need to be done in a more comprehensive fashion.

**Panel Member**

*Mike Robinson, Southern Company.* As I said in my presentation, the southeast has done regional planning studies for years. We feel we do a good job of that. I would say not a lot of folks know about what we do, and because of that I would say one of the things we need to improve on is the openness of the process.

And in doing that also I would say the second is becoming more formalized with the process. I think you're seeing some of those things as you may know a lot of the things that we do, the studies that we do on an interregional basis in the southeast are going to be coming up under SERC in a formal regional studies group. So we look forward to that and so with that I would say those are the two things we need to improve on.

**Panel Member**

*Ricky Bittle, Arkansas Electric Co-Op.* I think there are a couple of things. The larger region is one of the issues, but looking at congestion costs and the way it might drive planning in a slightly different way than reliability is one of the things that I think we need to get better at. But to go right along with that, you've got to have a good cost allocation process for new transmission when it is built. Because when you think of it long-term, however that gets done, the cost allocation that's going to drive its acceptability, and that interregional coordination between states is going to be very important when you're talking about planning for a larger region. So you've got to get buy-in from several states as far as the planning process and the cost allocation process in order to really make it work.

**Panel Member**

*Rob Kondziolka, Salt River Project, WCATF.* In the west, I think we're headed in the right direction. I think we're firing on all cylinders. That's not to say that everything is where it should be. In some cases some of

the elements are in its infancy and others are in its adolescence. And I think one thing that's first and foremost is having robustness and inclusiveness. That's a very vital, critical part of the planning process. Moving it beyond transmission planners and all those who are impacted by transmission, I think we all recognize that transmission is a very scarce resource and we need to make certain that any transmission that's built has the most needs met by the elements that we move forward.

We need to make certain that those get scrutiny and to my other point, one I think we need to do a better job in our scenario planning and data. As DOE looks at the work that comes out of the east and the west, it's only as good as information you can put into it. And I think that we can do things to provide more options and analysis and getting the data. And then lastly it's once you have that type of work done, it's improving the integration into the alternative and comparative analysis. Again, for those of you who are familiar with the west, you can have very large paths or swaths. There are many, many ways to solve a problem. And I think we need to, once we identify those elements that need improvement, or we believe need improvement, go through a more rigorous process of comparing the alternatives in seeing the benefits that each one of them brings.

#### **Panel Member**

*Larry Chapman, California Public Utilities Commission.* One example is just to do what we say we're going to do. And on the state level let me point to our energy action plan, too, which I commend to your attention. It's on the website of both agencies (CPUC and CEC). I'm just going to read a sentence on two points from the section on electricity adequacy reliability and infrastructure. And this is what we are committing to do, our agency and Joe's agency.

Point 11: Improve the state's transmission line planning and permitting processes by integrating the California ISO's transmission planning and modeling capabilities, the CEC's power plant licensing and environmental planning expertise, CPUC's ratemaking function.

What we need to do in California is actually do what we say we're going to do to improve this planning and permitting process to work together, the three agencies.

The second thing that we need to do is point 14 under this section of the report, which is:

Point 14: Coordinate the state's transmission planning process with regional efforts in the interconnected western states.

And so we need to be more proactive in working collaboratively within the western interconnection. I think Rob during his prepared remarks pointed out this new committee, the Transportation Expansion Planning Policy Committee that WECC is just starting up. We would commend to not only our California participants but to all participants in the western interconnection to actually do this, to work with this committee and for this committee to actually do the work that it is setting out for itself to do. I think if we do what I pointed out on the state level and if what happens on the western interconnection-wide basis at WECC happens as we say we want it to happen, we'll be in very good shape. But we need to just do it.

**Poonum Agrawal**

The purpose of this section is to encourage new projects and siting and along with 368 and 1221h with the DOE lead agency authority, really to expedite siting and review for federal authorizations. And in addition to that, we heard from you all that there's a need for DOE to consult with the states and depend on the regional processes and state processes for review and analysis.

How can this work be shaped so that we give enough time for non-wired solutions to come up, and how long should we wait for projects to be proposed before we actually make the designation?

So there are really three questions there: How can we actually get to the objective of the provision, and what should the timing be for review of alternatives and review of projects? Review of non-wires and then review of transmission solutions?

**Jody Erikson, Facilitator**

Panel folks want to jump in? Go ahead, Rob.

**Panel Member**

*Rob Kondziolka, Salt River Project, WCATF.* On my last slide, I think I was addressing - or trying to in my limited timeframe - address all of those objectives on your questions.

I think the process should be such that you start somewhere and that's with the study work. And out of the study work flows information that would lead to, I'll use that term, potential designation of a very important corridor. Or a cut plane.

And the next step is to allow people access to data to determine if it is worth trying to solve that problem. You know, once in a while we hear about reliability must-run problem. The only way you know if that's truly an economic problem, is to find out what is the cost of continuing to run RMR compared to the cost of accessing resources elsewhere and building the transmission, and then having your ongoing OEM costs and compare those two. There may be other issues such as pollution or emissions that are associated. But in the diagram, you would start with the identification and then you have potential solutions needs. That next step I think could be fairly well-defined. If it involves federal lands, I think the first step has to be in a project sponsor moving forward with an application and the request for federal permitting. And in there, especially if it's a significant project, you will have alternative analyses included.

Typically an EIS will look at objectives of your no action, and it will also evaluate what other type of options you have. Now, certainly a project sponsor may not identify the best non-wires alternative, but it provides other people the information they need to propose a non-wire solution if it tends to be better. We may not have seen that in many of the EISs that have been processed, but it provides that opportunity.

And then lastly, once you get through that part of the process, you then say, yes, we need to move forward, and you can then in that part of the process have a NIETC designation and then would also provide states or regional entities who need to do siting all the information they need to go through their process.

**Panel Member**

*Joe Desmond, California Energy Commission.* I just wanted to respond. This is an area that is probably most challenging for us, even on a statewide level and sort of expand this to regional or national level in the sense that non-wires alternatives are going to be number of people advocating for efficiency or distributed generation or new generation, close to loads to relieve that. I think one of the earlier speakers said these are not direct substitutes. They're not interchangeable commodities. We need transmission. We have to be thinking about that in this context.

Having said that, the state as a process has adopted what it calls a loading order, loading order that prioritizes energy efficiency, demand response, and then renewables. So our load forecast, our expected requirements are reduced, meaning they reflect the investment in efficiency already. So when we come to that level, we're saying the demand is already reduced by what we expect to achieve in the area of energy efficiency.

What remains then, are two other issues: sort of the distributed generation demand response and alternative generation technologies. The DR, in that instance, the state has a goal to achieve 5% of system peak demands by 2007 in response to that. But it's not getting to that goal. It's running into problems that deal with lack of price signals as a way of valuing that. So we're doing work in the area of capacity market, as a way of providing a monetization for those opportunities.

But still you come down to: what's the alternative generation? And at some point you do need to make a call and make a decision and a commitment to go forward. I say that because we have observed situations where years are spent analyzing transmission corridors in the southern part of the state only to arrive as decisions go back and consider the generation option. Two years later that process ends, and we say we'll go back consider the transmission again. Ten years go by we've expended millions of dollars in unnecessary costs simply because we're trying to get to this state of we have performed this integrated resource planning process. And so I think we need to recognize some of the limitations that we face in the context at least of a competitive market, where generators can propose these alternatives and similarly other third-party entities or utilities can propose transmission.

So we have to make our best effort. What we're at least trying to do is identify at a need-basis whether or not our CEQA, California Environmental Quality Act, will accept the planning level determinations and findings when it comes time to do a specific siting or permitting for a given route. And these are issues that we're working through right now. So I don't have exact recommendation. I can tell you it's a problem.

**Panel Member**

*Sandy Hochstetter, Arkansas Public Service Commission.* I wanted to address the timing for transmission solutions first. I think if you have a regional process in place and a regional entity that's doing a long-term transmission process - 10, 15, 20 years as long as the process has identified the transmission needs and there's a transmission owner that's required to then move forward or a series of transmission owners that are required to move forward to construct that - then you let that play out because it's in the process. It's in queue and it may take a while for that to actually get constructed, but I think once the responsibility has been assumed by someone, you know you don't need to worry about it at that point. And then when it comes to non-wires alternatives, that's just a whole other ball of wax all together, because the states have the jurisdictional authority to look at resource adequacy and demand response and generation solutions. And so

that entails either a state-by-state IRP process or in some cases a regional IRP process and I think we'll see more of the regional IRP processes playing out in both RTO and non-RTO areas, and at that point you know whatever the process is that's in place, either state by state or regional, is going to have to take care of the identification of the non-wire solution. But once the identification has been made and someone has committed to move forward with that, I think there also -- you can at least for that time being just assume that's going to be taken care of and then only if it isn't, some long-term point in the future take up the issue again of how to deal with that congestion.

**Panel Member**

*Bill Whitehead, PJM Interconnection.* I think if you look at the regional planning process as it exists today and I think in most areas, the regional planning process looks at all of the solutions that are proposed. So it looks at generation that's proposed. It looks at demand side that's proposed. And it looks at transmission, and it tries to balance the needs of the system with all of those various, the various projects that are being proposed. You know, what we have seen right now anyway is that the generation that's being proposed, you know, we have a fair amount of generation in our queue process right now. Most of that is proposed on what I call the low price side or the low side of the congestion, on the western side of the congestion. So it will actually contribute to flows across the system that's now congested.

We do have demand programs being considered in some of the eastern areas but not enough to offset the continued load growth that we see in the corridor: Baltimore, Washington, Philadelphia, up through Newark and New York. There is some demand side being proposed but it's not enough to offset the load. When we look out 10 to 15 years, you know what we see is we see a need for transmission because everything that's being proposed right now is actually, you know, could potentially contribute to the problems if we don't find ways to get some transmission in in order to deliver that generation to the loads that are needing it and deliver across the transmission system without the significant congestion that was likely to occur.

And I think as far as how you go about doing the designations, I think you run into a bit of a chicken and egg syndrome there, because you know at least we do have a couple of transmission projects proposed in PJM. And I won't speak for the developers of the projects, but certainly the corridor designation is an important part of their project. So their project going forward may in fact be somewhat dependent on the fact that a corridor gets designated and that they can count on that corridor designation as kind of a back-up to their siting process. So I think the fact that regional planning processes have identified needs, most of the types of solutions or the alternative type of solutions have already been considered or will be, or are being considered in the process. And I think again the timing of your corridor designation becomes very important to making sure that major transmission project actually gets built.

**Panel Member**

*Larry Chapman, California PUC.* I would address your multi-part question with simple answer: Use fuzzy logic, which is a great concept that we get from the computer programs. And what I mean by that is depending on what the situation is, you're going to use different timing scenarios both for reviewing alternatives and for reviewing transmission solutions. And let me take the very fruitful concept that David talked about this morning, the transmission constraint area.

To the extent we can identify let's say in California and in the southwest, constraint area, you've got the east of the river, Colorado River constrained area, the west of the Colorado River constrained area and the work that the Western Congestion Area Task Force is putting together you'll see it's not as graphic showing you big red blotches which are you know these constrained areas, and this is exactly the kind of thing that you want to bring to our attention right away, designate, you know, east of the Colorado River, south of the Colorado River, constraint areas. But what you need to understand is that we're already very actively engaged in planning transmission to alleviate those constraints. There are three projects that are currently under active permitting that will essentially alleviate much if not all of that constraint. There are a couple of projects that our commission is actively considering right now. And then there's another project that's being sponsored by municipalities that does not have to go through our permitting process. But if those three projects are all built within the next three to four years, we would envision that that constraint area essentially goes away. And there's no need to designate any corridors.

On the other hand, and this is the counter example, you know the State of California has the policy actively supporting the development of more renewable energy. We've got some constrained renewable resources that are locationally constrained, wind and solar are where they are and you can't move them to where the load is. You need to build transmission. You need to build transmission from the Tehachapi area 100 miles north of Los Angeles, down to Los Angeles. Probably need to build transmission from that area north to the PGE service territory, that because it's locationally constrained and because there's a state policy actively promulgating the development of that kind of a resource, and it is an alternative, we want more renewable energy, but we need transmission to get back to load. So that's the kind of counter example where you might want to actively move more forward and pushing towards some sort of a designation. The state has identified this resource. This is a resource that's available. This is a resource that needs transmission to get to load. It serves many of the purposes that are sold forth in your criteria: energy independence, national security. There are a lot of good reasons for us to develop these renewable resources. And 4,000 megawatts, that's a lot of juice.

So, to the extent that that area can be identified as an area that needs particular attention in order to bring these resources to load, that's an area where you can move more rapidly toward a designation. Does that help?

**Panel Member**

*Mike Robinson, Southern Company.* I think the first question was: how do we get to a designation? And I've heard a lot of questions today about process and I think it would be very helpful if the Department had a very formal process laid out that's transparent on how to get from congestion report to designation that basically spells out how they're going to meet the statutory requirements underneath the energy bill to consult with the states and the regional entities to get to designation, you know how that process works, that's a good question. But I think most importantly is the consultation with the states and the regional entities to get their input into alternative solutions and wire solutions.

**Poonum Agrawal**

The question is really how do we meet the objective of the designation or the intent of Congress in this statute?

**Panel Member**

*Mike Robinson, Southern Company.* Well, I think my point can answer that question, too. I think there needs to be a formalized process to get to designation and there needs to be consultation with the states and the regional entities to look to see what the alternative solutions are in that process.

As far as once designation is made, how do we get transmission built, our position is that once designation is made, we don't feel that that should be a conclusion that transmission is the ultimate solution. The transmission needs to be built. Still need to look at alternatives. Needs to have commitment from all parties to go forward from the states, market participants, and transmission providers in the area. And it has to be economical. I think at that point it needs to be left up to the regional planning process. And there needs to be somebody willing to fund that project.

**Panel Member**

*Ricky Bittle, Arkansas Electric Co-op.* I think that I have a little different view of what you're attempting to do. And I think part of it is just to highlight whether our problems that are going to need to be looked at and have special attention, now some of them we'll know and some of them will be more of a cost indicator. But the idea being, basically, that you're putting pressure on those local entities to make sure that those areas are addressed, whether something gets built or not remains to be seen. But there are two, as far as timing is concerned, it depends on whether it's a reliability issue or a cost issue. Obviously most consumers when you start asking them the only thing worse than high-priced electricity is no electricity. So that has to be addressed first. There's no doubt about that. But as far as whether you look at alternatives or not, it's one of those things that I think is going to happen whether you are involved in it or not.

And it's really difficult for me to believe that there will be an overbuilding of transmission just from some of the things that we have seen as far as how long it takes to get certain transmission sited and approved and then before you can even start construction.

**Jody Erikson, Facilitator**

Two more. I think we might have a question -- I'm going to take this two seconds and say for folks on the webcast, the PowerPoint slides that were done during the presentation are in fact posted on the [www.energetics.com](http://www.energetics.com) website, that the full name of the link is on the page that you all are looking at just underneath the title. It says see that full link. So just for those folks on the webcast you can see those slides on line at the [www.energetics.com](http://www.energetics.com) website.

**Poonum Agrawal**

And just a quick note: so we can get some more questions in, if the panelists could keep their responses to two minutes so we can get more questions.

**Audience Member**

*Steve Henderson, CRA.* This is for Chairman Hochstetter or anyone else who wants to. I got the sense in your remarks that you saw a difference between DOE's use of corridor designation inside of RTO/ISOs versus in areas that are not covered by RTOs. And I was wondering, is that correct and if you could elaborate a little bit on that, like I was getting the sense, for example, that you might actually see a value in designating corridors outside of RTOs but not so much inside.

**Panel Member**

*Sandy Hochstetter, Arkansas Public Service Commission.* I think the differentiation that I made, Steve, probably had more to do with how much deference DOE needs to or should give to the regional planning processes in place. I think that one thing that this new statutory authority that DOE and FERC have, will do for the non-RTO areas probably encourage more regional planning processes to be implemented or at least more comprehensive ones than exist right now. I think that as the planning processes are more sophisticated and more comprehensive and more independent, transparent, et cetera, such as we have in RTO areas and there are even variations among them, more deference ought to be accorded.

Where you have reliability only, regional planning processes, or ones that aren't fully inclusive of multiple stakeholders aren't open transparent, broad based, et cetera, and look at economic as well as reliability upgrades, I think perhaps either those processes need to be developed more fully or alternatively, you know, DOE's interest in those regions, you know, might heighten the desire and the interest level to expand those regional processes. If that makes any sense. I think it's a degree of deference and maybe the need for DOE assistance to, you know, help jump-start some of the enhancements that might need to be made to the regional planning process.

**Panel Member**

*Ricky Bittle, Arkansas Electric Co-op.* I think one thing that I would add to that, it would depend on the size of the non-RTO region as far as what you're looking at there. The smaller the region, the more you're going to need to look at it as far as designating corridors. If a large region, probably less so, except between regions.

**Panel Member**

*Rob Kondziolka, Salt River Project, WCATF.* I would like to concur with the commissioner's comments; as long as you have an institutional process which meets the criteria she described, then high deference should be given.

**Panel Member**

*Larry Chapman, California Public Utilities Commission.* Ditto.

**Jody Erikson, Facilitator**

Open it to all of you, remind you the questions that DOE, David asked if you have something near-term and what are the critical improvements, and Poonum's question as well: how do you allow for alternatives to emerge and how long from the proposed project to a corridor designation. And either of you are welcome to clarify how I just shortened those questions.

But I'd like to open it to all of you keeping your questions to about two minutes and so the responses are about the same. Go ahead and say your name, keep your microphone close so the recorder can actually hear you.

**Audience Member**

*Mike Heyeck, American Electric Power.* David, in response to your question, the issue that we dealt with in our line that took 16 years to be built was the issue of federal lands and your lead agency role and having



FERC involved also delegating some of that siting process would be very important. We learned from that process and in another area of our system we avoided the forest and now we're having to go through that forest or at least consider it as an option. Going through the federal lands and lead agency role we think is very important.

**Audience Member**

*Ray Kershaw, International Transmission Company.* This is a question for Ricky Bittle or anyone who wants to answer it. An overlooked area, but when you look at denied transmission service requests, a number of them you miss the fact that there's probably a whole lot more people that aren't making requests that would have. In our area, MISO and PJM it's a big issue, two big markets. So just looking at denied requests doesn't tell you how many more there would be. And I wondered how you might address this. And I don't really think the system impact process has worked properly here. It may in some cases but not in others.

**Panel Member**

*Ricky Bittle, Arkansas Electric Cooperative.* You're right that's a question but how you get to that information, I don't know. It's the old question of how do you measure what isn't. And I don't know how to get there other than unless there are enough people that recognize that they wanted to use that interconnection that they can make that information known.

**Audience Member**

My name is Alison Silverstein --

**Panel Member**

*Ray Kershaw, International Transmission Company.* I would suggest then I don't know whether it's a survey or how you might want to do this, you might want to pursue missed opportunities market to market in that very realm. Again, if people don't make a system impact study request from financial reasons or otherwise, you just don't know.

**Panel Member**

*Ricky Bittle, Arkansas Electric Cooperative.* And the number of denied requests may be an indication of the paths that you might want to survey.

**David Meyer**

Do you anticipate then that the planning groups would conduct such surveys? Would they go out to the people in the areas they serve and ask for responses to a series of questions pertaining to requests that were never submitted?

**Panel Member**

*Ricky Bittle, Arkansas Electric Cooperative.* That's not done currently, but as this process moves forward, I'm sure that there will be a lot of things that are incorporated that have not been before, and I think that one might be a useful one.

**David Meyer**

Would PJM do something like that?

**Panel Member**

*Bill Whitehead, PJM Interconnection.* I think the information that the types of information, you know, obviously we get requests, you know, the ones that are published on the website, requests for transmission service or request for interconnection or whatever. There are lots of folks come to us to talk to us about, you know, why can't they do certain things. Obviously we don't publish that. But that's one of the things that we kind of keep track of and it's one of the things we think about as we do the planning processes, you know, how many folks have come to us to say we'd like to do something but we can't.

So I think while it's not explicitly included, it's certainly one of the factors that factors into some of the things we think about when we do regional planning. We don't do a formal survey but we do -- people do come to us for those types of things just because we are the regional planning authority and they're looking to us to help them find ways to, you know, to make it a better way to make the network more available for use.

**Audience Member**

*Alison Silverstein, Alison Silverstein Consulting.* I'm confused about two things that I hope you can clear up for me.

The first: Every one of you, maybe except for Ricky, you said you have swell planning processes going on already. Although they can use a little bit of improvement in certain respects, I'm a little confused about whether if DOE comes through and says, you know, there are some areas of problems on the transmission system that are so important that they deserve national recognition and national significance, I'm concerned about how effective your current planning processes that you weren't able to identify those and get them handled. That's my first question, as to why those planning processes deserve a lot of deference. They're the only things out there that are going to get deference.

But my second question is this: You're also telling DOE that they need to consider alternate non-wire solutions and alternatives to transmission before they do a designation, at the same time you're telling us that your local and regional planning processes are doing, looking at non-wires alternatives so you've already looked at those before you're recommending a transmission option. So I'm a little confused why DOE should be going through duplicating your work when you're telling them to trust your outcomes. Thanks.

**Panel Member**

*Ricky Bittle, Arkansas Electric Cooperative.* Let me just be clear. I did not say that we do not have good planning processes. We have good planning processes that take care of reliability issues. There have not been outages in that area and I think that's a good indication that that's true. I think the ability to incorporate costs into those is going to be very important. And the ability to make sure that there is, or that there's something across where there are seams, is something that needs to be improved. So I'm talking about improvement. And I think that I was one that did say that I liked the early designation of the paths because it puts pressure on moving forward with solutions, whether they're transmission or otherwise. But it gives that designation that something needs to be done.

**Panel Member**

*Bill Whitehead, PJM Interconnection.* Couple of responses. First, I think, and it may not have been clear about this but to answer your second question, I don't think we were - at least I wasn't - saying that DOE necessarily needed to consider alternatives. I think what I was suggesting was the alternative solutions get considered in the planning process. And if we reached a point where we're saying we need transmission, the corridor designation is something that can help get the transmission built. I think, you know -- and we've considered the -- we've already considered the other solutions.

I think to echo the comment that Ricky made, I think again we've been doing, you know, reliability planning and we seem to be doing that pretty well. The part that we haven't done real well that we know we need to work on a little bit is the market efficiency or the economics, getting some transmission built that makes the lower-cost generation more generally available to loads that are currently paying higher costs.

So I think the, I think again the concept of the corridor designation at least from what we're hearing from the people who build transmission is that it provides them with some additional, number one it provides them with additional information that says, yes, this transmission is necessary. The second thing it does, as Mike Heyeck said it provides them with some additional cover as far as when they have to go through federal lands or when they have to go through some difficult siting it gives them additional cover to get the line built.

**Panel Member**

*Larry Chapman, California Public Utilities Commission.* Alison, I would answer your question by referring to the concept that David promoted this morning. You know, let's use a carrot and a stick approach here. The electric transmission constrained area designation, kind of a pre-NIETC designation, would be a carrot that would encourage the regional planning processes to get their act together and come up with, you know, some really clear thinking about what's needed here and there might even be some consensus coming out of the process as to the need for a particular transmission, for transmission in a particular corridor that then with consensus from the regional entities could result in a specific corridor designation. I think Rob's inverse pyramid that you saw on the screen this morning is a good visual to embody that concept.

**Panel Member**

*Speaker Not Identified.* I just want to follow up on that ever so briefly. Again, I've tried to be fairly honest here in assessing what does and doesn't work, and I'll be the first to say you know we have opportunities to improve this. And so the role of the DOE and the designation of a corridor I think is important. And I think we all recognize states don't want to see the authority over what's going to happen on land use decisions relating to transmission development. But it's a timeliness of getting these decisions, and we need the ability to make sure that the certainty is there and the process so that people making the appropriate investment decisions and the planning and the analysis and the engineering and ultimately in the construction, so that they have a sense there's light at the end of that transmission line. And in that case I think you'll see specific case-by-case basis where federal back stop siting authority might be justified and welcome. But again it's going to be on a case-by-case basis and we certainly want to make sure that the corridor designations capturing the strategic benefits of what's important. It's not the reliability, it's the national security, its access to renewables, it's the economic growth development, long-term needs of the country - it's not just that reliability element. Good question and thanks for pointing that out.

**Panel Member**

*Mike Robinson, Southern Company.* I would go back to reemphasizing that traditionally regional planning studies have been focused around reliability and as I said in our comments, and in the summary that I gave at the beginning, we are supportive of the national perspective of the study because these transfers that are looking at in the studies and the economic basis are not traditionally done in typical interregional type studies. So when I said that the department should consult with the states and regional entities and transmission providers in developing alternatives, it's to look at and use the expertise of those regions to look at alternatives that may not be traditionally looked at and the reliability type regional studies that we currently do.

**Panel Member**

*Rob Kondziolka, Salt River Project, WCATF.* I think the terms I used when I was talking about facing the west on the planning that some of it was still in its infancy and some still in adolescence. But I thought it was moving in the right direction. We talked about the criteria and metrics that the planning process needs to have to be workable. And to echo a lot of comments here, the reliability needed transmission is moving forward. You know contrary to a lot of the urban myths, a lot of transmission is being built. It is being planned. And it is in the permitting stages. The question is, when we get into the other issues, and Joe Desmond just touched on it, is some of the policies related towards regulatory directives. For just pure economics. And I haven't seen a project at least in the west that was just so overwhelmingly obviously it should have been built five years ago. If it was, I think there would be a lot more there.

I think the challenge here is trying to recognize which are those right ones. And once transmission is built it's out there for 100 years it's not going to go away. Whether you're going through the federal process or state process I haven't received a thank note yet for building transmission. And people don't show up in droves to say this should be done let's go do it. It's opposite. I think it needs to be demonstrated because it has a recognized high impact. It's visual for most people, there are other concerns that are related. But typically people don't want transmission. And we need to demonstrate and balance the public need along with the economics. And I think that only a very good planning process is going to allow that information to be put out on the table so that those entities that make the decisions and those are the federal agencies and the state original siting committees have the information so they can judge it, weigh it, and allow it to move forward.

**Jody Erikson, Facilitator**

I'd like to try to get as many of the questions if we can, panel, DOE folks, brief, I don't know if all the panelists needs to answer unless everyone has a comment. I want to make sure we get as many questions and comments in we can in the next 15 minutes. Robert?

**Audience Member**

*Robert Schlueter, Intellcon.* Our remarks are not intended to be critical of the planning process as it is today. But I would say that my previous remarks pointed out that most of the contingencies that make the system blackout are not known. What you get when it blacks out, you haven't studied it generally. In the areas that it blacks out, you haven't known oftentimes. Well, there's another issue that is related to the understanding of how to trade off distributed generation and demand response with transmission or generation and the reason for that is that all of the voltage stability problems propagate out of the distribution system. So effectively the smallest and the least expensive solutions to the stability problems come out of the distribution system. And typically, I would say there are few exceptions. The question is oftentimes the model down there in multi-area

modeling, working group activities, oftentimes is not complete. So you don't have as good a model as you would want. The second is oftentimes you consider the distribution system separately from the transmission system and ultimately from what I've been told again and again and again, these distribution problems, when they're fixed, they, for supposedly a ten-year period, they come back again and again and again.

The propagation comes from the distribution system, ultimately hits the transmission system and the tools cannot or make it very, very difficult to do these assessments. My point is really not a criticism of the methods. It's a criticism - it's a statement of the fact that the amount of work that's necessary to get a complete assessment is just overwhelming. You have to do, use engineering judgment and without very, very comprehensive computer cluster-based tools it can't be done. And I would appreciate comments to that.

#### **Panel Member**

*Rob Kondziolka, Salt River Project, WCATF.* I would tend to agree with a lot of what you said. One of the slides where it shows transmission planning, you'll notice that most of the local planning is where most of the resources are dedicated. It's not easy; in fact, we never do a western interconnection-wide study which goes down to the distribution level. What we end up doing is we have different planning models, and we have one for doing this high-level screening scenario at the western interconnection-wide level. Then we move it down to where we do a subregional analysis. Then we move it down further into the distribution area. I can tell you that SRP and many other entities throughout the west are very concerned about issues related to the tremendously high load we're seeing in load pockets. And a lot of research work is being done to ensure, and I hate to be an engineer on this, that we maintain the proper reactive margins in our load-serving entities. How do you incorporate load demand response and distributed generation, I don't have an answer. I know in our models we're not incorporating it because there's not enough of it to use. We could do scenario planning to where you could throw and make some certain assumptions and capture it that way. But right now there's nothing out there at least in the west which would lead you to believe there's enough that you could rely on.

Again, this is something that would be a good policy level. Not as much as it is a directive to an engineering study.

#### **Panel Member**

*Mike Robinson, Southern Company.* I think some of your points go to the benefits of having an integrated utility. You've got all those people working together sharing that information. But as far as the distribution I'm not a stability guy, I don't claim to be and nor do I want to be, but those are issues as far as distribution. But a lot of the concerns that we have would be from react requirements that are needed for large transfers across the system. And that's something that definitely needs to be, I think, looked at in the study. I've had some conversations with CRA in the past about that. And those are very important, the react requirements are very important to facilitate some of these transfers across large systems, particularly large systems like we have in the south.

So I understand your concern, and I echo some of your concern. But I think when you're looking at large transfers like this, particularly in this type of a study, I think it is important to look at AC-type analysis and look at react requirements for those transfers.

**Panel Member**

*Bill Whitehead, PJM Interconnection.* I do agree with you that the system can be problematic for the transmission system. We use a top down bottom approach to planning. PJM kind of concentrates on the higher voltage and looks down into the lower voltages, the transmission owners look at and the distribution owners look at their distribution systems and up through the transmission system. And in eastern PJM in particular we have a lot of -- we've had some voltage issues and some long-term voltage issues that we've identified. And at least you know a number of those solutions that we actually implemented were actually distribution solutions to resolve reactive issues that we identified on lower voltage transmission systems. So I think I tend to agree with you and I think we're attempting to make those distribution solutions work.

**Audience Member**

*Les Pereira, Northern California Power Agency.* I think a lot of discussion on studies - some of the discussions on study and reliability - I think we have a very good reliability model in the west. Both for power flow as well as stability. Now, we are trying to also get a single model which is going to be available to all the stakeholders for economic studies LMP-type model. But the problem is really the data not so much the program itself. And here I would request both the DOE and those people who are in charge of who can influence the data to be made available should really do so. The DOE and FERC, for instance, could make data available for economic studies and data I'm talking about data of generators, heat rates, and data like that.

Now, there was mention by the two California agencies, the commission as well as the PUC, about the studies done by the California ISO. Now, the California ISO has kept their data confidential. And there's really nobody else who can do studies and challenge those studies, we're not saying the studies are wrong, but just being -- the data is available, we can make studies and we can come up with alternative projects. So this is a big issue. I think I hope all of you will recognize the issue and speak to this as well as do something positive to get the data developed.

**Panel Member**

*Speaker Not Identified.* I'd like to say something to that because it's something I thought about earlier the assumptions that go into these longer term really make a big difference in identifying load pockets or where there may be constraints. Where you put new generation is one of the major assumptions that go into a longer term model. If you assume that it goes at existing locations, it has an entirely different impact as far as determining what's needed from a transmission perspective than an import.

And so sometimes they're just going to have to be some different assumptions made. You may be able to minimize the amount of transmission that you have to look at in your base case going forward by assuming that it's spread out at existing locations, but for the most part that's not where it's going to wind up long-term.

**Panel Member**

*Speaker Not Identified.* Just want to add a couple points. Certainly the Energy Commission is on record of supporting greater transparency. I would point to a couple alternatives both at Tehachapi study group and Imperial Valley study group open collaborative processes where the information has been made that helps inform that decision and so we would like to see that. The RMATs I thought was an excellent starting point that's led to that improvement on that SSG-WI database looking at the generating units and improving it to do

more improved economic modeling but I still struggle with from a long-term planning perspective given that there are policy statements and directions people would like to achieve. What are you planning for? The preferred scenario, meaning is it high renewables? Is it all imports? Is it continued natural gas? We sort of have this base case and there's tremendous variety in what those assumptions are as to your transmission expansion planning based on where you'd like to be. And needs to be informed and updated because as I said in some instances you don't make the progress that you think you're going to make, yet the need to serve the load is still there. So certainly what I would advocate for greater transparency.

**Audience Member**

*Larry Chapman, California Public Utilities Commission.* I'd like to go back to the idea presented earlier this morning of the base process identification of constraint areas triggering all sorts of further evaluation proposals, analysis, particularly at the regions. Then possibly leading to corridor designation and so my question both for the panelists and for DOE is why shouldn't the identification of constraint areas also trigger a very hard look at are we -- is everything being done that could be done to facilitate the existing planning processes before we consider designating any corridors. Two things come to mind are siting on federal lands and the cost recovery process. But I would ask any of you: Would that make sense do all that you can in that direction first before designating the corridors?

**Panel Member**

*Speaker Not Identified.* Your first question was incorporating designation or constraint corridors and to the regional planning process; is that correct?

**Audience Member**

*Larry Chapman, California Public Utilities Commission.* The identification of constraint areas would identify areas which would receive a hard look at: are there impediments to the existing established processes that we can relieve before we designate a corridor in that area. And two things that come to mind are the siting on federal lands, which has been mentioned previously, and another one which I realize is outside of the domain of DOE is cost recovery. But there are things that could be done to support the existing processes in constraint areas before designating a corridor in that area.

**Panel Member**

*Mike Robinson, Southern Company.* I would say that from a southeast perspective, you know we would definitely be interested in having those discussions and talking with our regional parties about constraint corridors and designation and planning processes that we have and any impediments that we've got that we could eliminate and move forward with any potential projects that all parties agree to are economical.

**Panel Member**

*Sandy Hochstetter, Arkansas Public Service Commission.* I think that's a very excellent question. And I kind of look at the designation process, in fact it's not the way I look at it, Poonum actually at a transmission seminar I was at a couple of weeks ago identified the three different buckets or three different categories of potential NIETCs. The primary one first one being reliability then go to economic upgrades then the third category that they mentioned was connecting new generation with distant load centers. And I would say that the first one in terms of reliability upgrades is probably the easiest. I mean, we've got great regional planning processes in all parts of the country with respect to reliability upgrades. You know, sure perhaps they could

be enhanced and you could look at seam issues and whatnot. But when you could, many to economic and the third category of connecting potential new generation with distant load centers, cost allocation methodologies are very much at play. Even in RTO areas. There are still debates going on in some of the RTOs in terms of what the cost allocation methodology should be for upgrades.

I think that issue has to be solved first. I agree with you very much, particularly on the third one. I don't even know that we have regional planning processes in place to any sophisticated degree to look at really long line you know inter-RTO, inter-regional areas with respect to new generation that may or may not get build in distant load centers.

So that's something we'll have to work with FERC on and with the states and the regional institute.

**Panel Member**

*Joe Desmond, California Energy Commission.* Just a quick follow-up and I appreciate mentioning the cost allocation. Beginning next month, the California Energy Commission is about to launch another research effort into exploring the issues around cost allocation specifically on interstate transmission. So I would invite those who are interested to identify themselves afterwards. I would be happy to include you as part of that process when we go through that and we've retained some folks but we think it is a very timely subject. I wanted to mention that.

But I want to get back to the question you asked is why would you not consider all these other alternatives? On one hand I'm prompted by the example I gave earlier this morning about the study already showing problems on the AC and DC interties. And to me it's what's the value of the designation? What does it carry? What do you get when you have it? And if it is increasing the likelihood that the projects will be undertaken on a timely basis and be constructed, then I think there's a value there.

Where you have these unresolved issues, like cost allocation, then I think you're sort of compelled to have to explore these other alternatives while you're still working down there. But I think you really need to define what's the benefit of being designated and what does it get you. If you think intuitively or based on judgment, you're going to run into siting challenges and problems and there's a facilitation that DOE can play - you may want to say that's the preferred path as opposed to making it the last alternative.

**Panel Member**

*Rob Kondziolka, Salt River Project, WCATF.* There are a lot of embedded questions in the statement. One is just on a cost allocation, one element that's been working well in parts of a country is an open season approach. That may not be the solution for everything. But it certainly has its successes. With respect to the siting, the comment was made earlier, and in my experience is that generally, and this goes for most western states, it's much easier to site on private land than it is on federal land. And I think this is why the 368 process is so important is to be able to try and tie all the different elements of the federal land so that there's a clearer picture. And to hopefully expedite that part of the process and not having to do a full EIS when only a categorical exclusion or an EA is necessary. And if anyone wants to see me afterwards, I have more than enough stories on where that process breaks down. But then I will generally concur with the comment on the process that you commented on, that the designation doesn't need to slow anything down. And I don't know, we can move forward and to me the designation is important as things don't continue to proceed. You don't



need to wait for designation, you start now and that designation comes into play as it becomes apparent that there are problems in the process.

**Jody Erikson, Facilitator**

Okay. I've got -- go ahead, Larry. I've got time for one more question and then we're going to go to lunch. I've got one more.

**Audience Member**

*Grant Brummels, Sustainable Energy Solutions at Northern Arizona University.* I want to follow a comment with respect to data and transparency. Seems to be a very heavy focus on the engineering and economic modeling components of what's happening.

Remember in the end your results are presented through geographic mapping and I would encourage the Department of Energy to make available or facilitate the GIS data needed to coordinate between regions and amongst all parties involved.

I'd appreciate any comments you may have from the panel here with respect to mapping and accuracy; realize there's ways to present maps that are appropriate and ways that are not. And so even if it's a standardization of projection, be it equal area or equal angular. Thank you very much.

**Panel Member**

*Bill Whitehead, PJM.* I'll make one comment. We implemented a GIS system at PJM, and it's been useful to us in not only mapping but helping the planning process and sometimes you get results from the planning process that's difficult to present. Mapping has been as valuable to presenting and visualizing what we need to do as it has been to helping us do the planning.

**Poonum Agrawal**

Just want to add to that, in the east, the way we're doing the study, is we've identified hubs or end markets and CRA's using GIS information to find the exact locations of those hubs and end markets. And in the west, from my understanding, the paths that exist already have specific locations and Rob you can probably add to this, you're not using GIS data to find those locations but you already have some methodology to identify those.

**Panel Member**

*Rob Kondziolka, Salt River Project, WCATF.* It's not integrated GIS all the way through. We are using some of the data but I would concur with the comment that, one, having more common databases which have a GIS base would improve both the planning and the siting.

**Audience Member**

*Julia Souder, U.S. Department of Energy.* I'm Julia Souder, the project manager for 368. We're using GIS data, working with the Forest Service, Department of Defense, and Bureau of Land Management to integrate the entire western region into one GIS database for the designation of 368 energy corridors which will identify the width, centerline, and compatible uses, so look forward to seeing that in the fall of this year.

That work is being built into this study so it's a lot of compatible, parallelisms that will be displayed.

**Jody Erikson, Facilitator**

Ray, very quickly, because you're standing between everybody and lunch.

**Audience Member**

*Ray Kershaw, ITC.* This is a quick follow-up to an earlier discussion on the seams issues related to denied TSRs. Identifying missed opportunities between markets isn't always very easy. Pro-mod simulations are one way to do it long-term, and the one thing that's going on right now in the joint and common market is they are trying to look at transmission obstacles, and getting it's called IPSAC or something like that, I think it is. Is that right? And getting the NIETC involved in this process might be useful. Just a suggestion.

**Jody Erikson, Facilitator**

Okay. We're going to go to lunch. Thank you, panel. Thank you for all the questions. Lunch is now. (Break)

**SESSION 3: How Should Criteria Be Applied in the Identification of Constraint Areas and the Designation of National Corridors?**

**Jody Erikson, Facilitator**

Grab your last cookie, and have a seat. I have a couple of important announcements. One announcement you are definitely going to want to hear. Considering the fact most of you are not from here and have to go back to the airport, the hotel is quite aware of that and they are going to run their shuttle as quickly and as repetitiously as possible. Knowing that this meeting ends at 3 and they are going to get deluged with all of us trying to book it to the airport, if your flight is at 4 and, you know, please hustle over there. If your flight is not until 5, let the people whose flight is at 4, hustle over there first. Give a little deference to people whose flight is closer to now. So just be aware of that when you are going on over there that all of us are going to be trying to get on that shuttle to the airport and they're going to run it as often as they can.

Couple other housekeeping things. DOE is accepting comments for another two weeks following this meeting. So if you have revised comments, new thoughts based on this meeting they are still accepting those comments and would gladly receive them and read them and integrate them into their thinking.

I think that is all the logistics. Okay. Same format. We will have the panel speakers speak, DOE will have some questions and then we'll open it up to all of you to share your comments and your thoughts and your questions to the panelists or of DOE. Behind me is the -- second topic and the questions that the panelists were asked to address. So gentlemen and lady, I think we'll go in the order of the agenda, which I don't have in front of me, but -- oh, there you go. Mary Ellen...

**Poonum Agrawal**

Mary Ellen -- I'm sorry, going a little too fast for you. We're eager to get past all the DOE remarks to what the panelists have to say. I know that is probably more important in some cases. Let's see where we are.

Let's see, where are we? Okay. I wanted to start out by providing overview of the comment that is we've proposed and the comment that is we received in response to those. In February we published a Notice of Inquiry that sought comment on proposed criteria that we use to evaluate the suitability of a corridor for designation and these criteria are based on five considerations listed in the statute.

Lauren, if you would just move to the next slide. These are the five that are listed. Essentially they are: economic vitality, economic growth, energy independence, energy policy and national defense and Homeland Security. The eight that we propose on the Notice of Inquiry were designed around these and the other language in these statutes. In the first cut for all of this, for evaluating constraint areas, would be the congestion work that we're doing in the congestion study. And there the needs that we identify are based on three types of things and those are: reliability, economic, and a need for unserved generation sources.

And so, I think Commissioner Hostettler was mentioning some remarks I made a couple of weeks ago and really the distinction I want to draw there is those needs and problems will be identified with respect to the constraint areas and the information that we come up within the congestion area and the constraint areas. And the criteria we would develop would be applied to those to come up with the constraint areas and the designation of national corridors that warrant national attention.

And just as a reminder, the indicators that we looked at -- or are looking at in the congestion study -- are shadow price, over all hours of the year, and binding hour shadow price, the price over hours during which the flowgate is binding, and congestion rent, shadow times flow times the number of hours the gate was binding. And then we're looking at usage metric which is the binding hours and then the number of hours that the transmission element was loaded in excess of 90% of its limit.

And so with that, I want to get into the draft criteria and so, Lauren, if you would go to the next slide, please. The first criterion that we proposed was with regard to reliability and the issue, or the emphasis behind this criterion is not whether reliability is met or not because we implicitly have included that by imposing the NERC constraints in our modeling. But, the issue is whether reliability is jeopardized due to congestion and that is really what we are getting at here.

Some other metrics were proposed in addition to the ones that we are using, such as loss of load probability, potential impact on gross state product and outages, operational performances of system/facilities, ability of the grid to meet applicable reliability criteria, et cetera. And overall there is support for this criterion; however, some argue it is not necessary given that NERC's reliability standards already exist.

Moving on to the second criteria in terms of economic benefits. Most commenters supported this criterion; however, they caution DOE system costs are accounted for so that the benefits are not overstated or understated. The question remains whether the measure of economic benefit should be the price differential between end markets that are using shadow prices or production cost savings or some other measure.

In terms of criterion three, some of the comments that we received were to look at this from a perspective of reducing gas, natural gas usage or that we should consider load pockets and rural development, as well as part of easing electricity supply constraints and end markets served. Another aspect is making sure that we include renewables in this criterion.

In number four, actions that would enhance energy independence. I think there's some confusion about what this meant. In this case, we're really talking about decreasing the dependence of the U.S. on foreign sources of fuel, such as oil or natural gas. We're not talking about closing our borders to trade with any other nation, particularly Canada and Mexico. So there is an understanding that our grids are interconnected, but the idea is really a reduction of dependence on foreign sources of fuel. Some did say that it might be a vague criterion or hard to apply.

Moving on to number five. Without getting into what national energy policy is, I will suffice to say that commenter felt that this criteria was also a bit vague and hard to apply to corridor designation.

In terms of number six, actions to enhance the reliability of electricity supply to critical loads and facilities and reduce vulnerability of such critical loads or electricity infrastructure to natural disasters or malicious acts, several commenters said that we should probably look at critical energy infrastructure information, but that is a different issue in terms of the designation, whether we should publish information about what we designate and which are important to constraints. That is different from whether the designation should be based on whether there is an importance of certain transmission element or corridor to national security or to Homeland Security and energy security in the event of natural disaster or attack. We still need metrics there to evaluate and we didn't get many comments on those.

In terms of seven, we talked about this a little bit earlier this morning, whether we should apply criteria on uncertainties associated with analytic assumptions. One way to address this that was mentioned in the comments was to look at sensitivities, another was to do probabilistic analysis or probabilistic planning techniques, but there is a caution that in doing so we not impact future flexibility of the system. Some comments noted it is not for DOE to consider, but it should be addressed in the regional modeling and planning efforts. A major concern, though, is that in doing this we could discount the value of future expansion. One other remark is that since the study is done every three years it might mitigate the need for this criterion since assumptions and their impacts can be reevaluated on an ongoing basis.

In terms of draft criterion eight, we talked about that quite a bit this morning. And the comments also reflected the discussion we had and those alternatives should be discussed in the state and regional planning processes. And there were comments in terms of DOE not making designations before alternatives were considered. But also that DOE not wait for alternatives to be reviewed so as to not delay the process unduly. And there's one interesting comment in terms of enabling innovative solutions to come forward, such as financial instruments.

Some of the other considerations that were mentioned, one in particular was to consider environmental and emission benefits, but there were no metrics associated with that.

And so, Lauren, if you would go to the last slide. I'm going to leave you with some questions that we're still grappling with:

Have we identified the right criteria or should some be dropped? And we heard about some of those in the comments.

Should they be qualitative or quantitative in nature?

And how do we apply criteria to projects that are proposed to address the constraints?  
And do we set a threshold level for designation or use relative ranking?

And should each criterion have equal weighting or different weighting, and in either case what should the weighting be?

And should the corridor have to satisfy some or all of the criteria?

These are some of the questions that we're considering as we move forward in the criteria discussion.

So with that, I'll turn it over.

**Jody Erikson, Facilitator**

Thank you. Mary Ellen...

**Mary Ellen Paravalos**, *Director of Regulatory Policy, National Grid*

Hello. My name is Mary Ellen Paravalos and I am Director of Regulatory Policy for National Grid. I want to thank the Department for the invitation to speak today. National Grid is very supportive of the objective of the Department. Recognizing - appreciating - the need for transmission in several areas of the country, as well as fully recognizing many of the barriers to getting transmission investment in place, namely one that we're focusing on today, which is siting processes.

I listened to the discussion this morning with great interest. And the way I'm thinking it might be useful to look at this is that a corridor designation is to give sort of a high-level, executive directive to the industry to focus on a particular problem area. It is not to prescribe, nor favor, any specific approach, any specific developer or any sort of specific technical solution. It's rather a designation that says: this is a problem and it needs to get fixed from a national perspective. Then we'll let the region and states fix the problem in a particular way.

We urge the Department to consider using the type of interpretation, a broad definition of constraint area corridors. The specifics are and should be left to regional planning processes, siting processes, environmental reviews or as a last resort for FERC backstop authority. But I think from National Grid's perspective, we caution that we not unduly hold up corridor designation why -- for solving what are rightly detailed siting issues.

With regard to the actual criteria and thresholds, we need to take care not to use them too rigidly or too narrowly; different transmission problems or problem areas in the country may require different approaches. DOE must, in the end, exercise its own judgment. Let's all remember that new transmission facilities will not be constructed if they are not ultimately found to be cost effective in the public interest. And so I mention this morning it is quite possible that a corridor designation may not ever actually be used.

With regard to aiming at a predefined cap or target for corridor designation, I would suggest that we not try to do that. It seems really hard to do. I don't know what the right number of corridors is. I'm sure you don't either. I do trust that in time you will know what the right answer is. I was thinking of this this morning and it was reminding me of "A Hitchhikers Guide to the Galaxy," do you know this book? You know, they spent a lot of time thinking: what is the answer to the universe? And the answer at the end of the day is 42. And to me trying to put a cap or a limit on corridor designation seems as arbitrary as the number 42. So I would urge not trying to get off track with regard to that.

We don't recommend that corridor designations expire automatically after a fixed period unless it's a rather long time. Let's be honest, we are in this for the long run. Some problems will get taken care of in a couple years. Others are going to take several years to do. And so let's not prematurely pull the rug out from any potential corridor designation every three years unless there's a good reason to do so. I do think the three-year congestion study does provide an automatic vehicle by which to reassess corridors, we should do that, but let's not do that prematurely.

With regard to some of the criteria, I want to focus on a couple. Criteria two, with regard to economic benefit: we urge the Department not to rely on too narrow a definition of congestion. You need to look beyond just LMP differentials. I would caution not to over-rely or exclusively rely on regional transmission processes that exist today. Don't get me wrong, I'm a big proponent of regional planning processes. But let's face it; some of them are limited by either predefined tariff language that limit the planning scope. They may not include robust interregional analyses. They may be rooted in traditional utility planning or very often stymied by unresolved cost allocation disputes. And so whereas I'm an advocate of regional planning, let's recognize some of the limitations of some of the processes that we have out there and not over and exclusively rely on them.

With regard to criteria seven, not unduly contingent on uncertainties: let's remember that planning is all about forecasting. Let's utilize sensitivity analysis.

With regard to criteria eight: let's remember that this is detail that can and should remain in siting, regional planning processes or environmental review processes. Again, I don't think it's inconsistent for the Department to identify a corridor and at the same time be agnostic as to what the right solution is. Let's leave that for the next step, for the siting, for the region, for the environmental reviews and thank you very much.

**Jody Erikson, Facilitator**

David Till.

**David Till**, *Transmission Planning Department Manager, Tennessee Valley Authority*

I'm David Till with the Tennessee Valley Authority. I thought I would devote this time to the mathematical basis for the derivation of 42. (laughter) Instead let me just thank DOE for having this. I thought I had a hard job until I saw that you were going to identify these national corridors by August.

I'm addressing the first question in the list. Next slide. A solution to significant congestion, which cannot be -- or for which conventional planning solution does not exist, should be the primary criteria for national interest corridor. We all plan for reliability. There's no reason to duplicate the planning that we do. There is an off-shoot from this. However, if there's a situation where conventional planning criteria cannot justify solution to significant congestion then it needs to be of national interest. The off-shoot is that if conventional planning criteria and methods do justify a solution, that the solution is not progressing. For instance, because it crosses state lines, the solution crosses state lines, the solution crosses seams and there is a need for help, then it could become of national interest. It could be inter-utility, intra-utility, interstate, intrastate. The main criteria I see here is that it needs to address the root of and not the symptom that shows up in the congestion study.

Next slide, please. As an example of congestion without a solution, I would give you -- it's the wrong line. I would give you TVA's Volunteer-Phipps Bend Line and probably everyone in the eastern grid at some time or another has complained that there's not enough capacity on this line. However, there is adequate capacity to reliably serve TVA's load. TVA has no problem in the capacity in this line. But from a market standpoint, it's a severe constraint to market transfers across our system. Now, that is east-west and north-south.

Next slide, please. In 2001, TVA commissioned a study similar to what DOE has embarked upon on a much grander scale. And we were looking for what we would have to do to get 10,000 more megawatts across our system. You see two DC lines here that resulted and some other work and that right-most line is the Boran Volunteer line that was proposed as a solution to the Volunteer-Phipps Bend Line underneath it. And I would emphasize here that the problem was identified as a great divide between TVA on its northern border and the utilities north of us. But it showed up as a symptom and the Volunteer-Phipps Bend Line which runs primarily southwest to northeast. I wouldn't want to see a national interest corridor to say that we need to duplicate that Volunteer-Phipps Bend Line and leave that great divide.

Next slide, please. Now for an example of a line that would have a conventional solution, but would have problems with just implementation, it could be a major artery crossing one or more scenes or state lines and an example might be an interplay in the future between Duke and TVA that would cost the Cherokee National Forest. It could be Mike Heyeck [AEP's] line, depending how it goes forward. Opposition and permitting requirement cause excessive delay in cost and this could become a national interest.

Next slide, please. I would -- leaving the criteria for a moment, put this before DOE -- however you apply the criteria and obviously I'm espousing a broad application. However you apply the criteria, whatever methodology you use I would offer up the Volunteer-Phipps Bend Line as a point of calibration. If your congestion studies don't identify that line, then you need to calibrate your congestion studies until they do. And other utilities in this room could offer similar calibration points. Thank you.

**Jody Erikson, Facilitator**

Thank you. Michael Heyeck...

**Michael Heyeck, Vice President, Transmission, American Electric Power**

Good afternoon. I'm Mike Heyeck from American Electric Power. If anyone wants to discuss the congestion definition at 3 o'clock, get your pads and pens ready as we go to O'Hare Airport.

At AEP we really thank the Department of Energy for putting this on and getting the notice of inquiry out. And we hope that the Department of Energy aggressively pursues the development of the criteria, the process to designate national corridors. The national corridors, from the discussion I had this morning, it seemed as if I'm not sure what the message was this morning. But *my* message is that we need the national corridors sooner rather than later.

The issue is that we have a lot of discussion of what is reliability versus economics. And I maintain the only difference being time. Certainly there are non-wire solutions out there and let's get them out there, let's get them proposed, certainly demand response, distributed generation, and siting of generation. Let's get them out there. We need the designations earlier rather than later.

And particularly I'm proud to announce that we are completing our Jackson's Ferry-Wyoming 765 kilovolt transmission line this year, the 765-kV line in West Virginia and Virginia. But I'm not proud to say it took 16 years. And it was largely a siting process that went through a U.S. national forest and no disrespect to the Forest Service, but we really need the lead agency authority and we really need to have a robust process for the federal processes. I think the state processes have worked well, certainly backstop may be necessary, but we have no intention of doing an end run around the states.

The criteria need to be forward-looking, rather than looking at data from the past. Certainly data from the past can be extrapolated into the future with some assumptions, some probabilistic assessment and so on. But we need to solve the problems of the future with the goals as you read per the Energy Policy Act. But those solutions are really for regional processes to determine. I really was encouraged to hear about your constraint designation and followed by designation on the national interest corridor. But let's not take a micrometer and try to measure the mud puddles. It is really as someone said this morning, the fuzzy logic to apply some of these criteria. So the qualitative solutions as well as qualitative backing are very important. One only has to read the Energy Daily today to figure out that we have a very serious problem. In Maryland, with high prices and in eastern PJM and some other pockets of the country with tens of percent increases in the pricing. What I am showing up on the slide is a five-step process we have in our comments and you are certainly welcome to read our comments. A lot of folks supported a multi-step process, separating the designation of the problem from the designation of the solution. That is the intent here, in addition to dealing with the federal lands issue.

Okay. Now go to the second slide. To show the proposals that are out there that was initiated actually seeded by the Project Mountaineer announcement by PJM. PJM was forward-looking enough to announce corridors for Project Mountaineer in concept. American Electric Power and Allegheny Power have announced projects and I don't mean to speak for Allegheny Power or PJM - we proposed these projects for PJM's regional transmission plan process. We are also asking that these be designated national corridors consistent

with what PJM has asked for. And this shows that these projects may not be the projects that make it because PJM will determine the projects, but we really support the process that PJM has in their designation request and we really would welcome these projects actually be coming an example of what an early designation application looks like. Thank you.

**Jody Erikson, Facilitator**

Kevin...

**Kevin Wright, Commissioner, Illinois Commerce Commission**

My name is Kevin Wright. I'm commissioner with the Illinois Commerce Commission, but I'm wearing a second hat today representing the Organization of MISO States, which I'm past president. What I'm going to highlight and say doesn't necessarily represent the viewpoints of all states. It is a consensus position and maybe after today on our position our thoughts may evolve as we have learned more.

First I want to thank the Department of Energy for their invitation to be asked to speak to you today. We've had a good working relationship in the past, came to formation at the regional state committee. And we hope we can return that favor with some good dialogue and some suggestions.

We have filed our comments. I will not go into detail because of the time constraints today, but generally highlight and I will be available for questions later.

In terms of the definition of constraint areas and corridors, I guess our takeaway is that the OMS believe that the NIETC corridor should be defined as a generalized path. We believe that's a better approach because it ensures flexibility that is needed to develop transmission routes that maximize the value of the transmission system, while at the same time, minimizing adverse effects. And we think it helps preserve a wider variety of potential solutions than a narrowly-defined corridor.

We also believe that DOE should look and should limit the designated corridor to a minimum geographic area necessary to accomplish the intended purpose of the corridor. We agree that an early designation should be used but should only be used in extraordinary circumstances, that NIETC should not be designated as a particular provider's request or for a narrowly defined project or predetermined project. And that designation should flow from or be directly limited to the congestion study results.

DOE should strive for balance where we have heard from some parts of the industry calling for big footprints. While some industry leaders may want large footprints, we look at that as a potential bypass to states and that going directly to FERC and it would be no surprise that states will certainly want to preserve their transmission siting decisions as state jurisdictional. OMS agreed with alternative solutions regarding reliability and congestion problems and believes that such an approach would have the effect of encouraging innovative approaches to modernizing the transmission system.

In terms of the established thresholds and application of the eight draft criteria, I will highlight a few of those.

OMS generally agrees with DOE's draft criteria, although some work on tightening of some definitions and perhaps some quantifying is recommended; in particular, we're curious what is meant by high reliability.

Some other caveats and concerns, criteria one high reliability: reliability projects in our estimation should only be built to the level necessary to meet the standards set by a regional reliability counsel.

Criteria two, economic benefits for consumers: such designation should demonstrate and have a threshold or minimum amount of economic benefit. Expected benefits should be reasonably widespread among customer



groups throughout a region and metrics should be developed to reflect the estimated economic benefit to all retail electricity customers.

Criteria seven that unduly contingent uncertainties with analytic assumptions: we look at and believe the assumptions incorporated into the modeling and forecasting of transmission system needs should be transparent. Analytical robustness as a metric for evaluating designation criteria instead of accuracy of projects and forecasts should be considered. In short, the key phrase there is unduly contingent.

However, I believe - and I'm speaking now more for myself than for the OMS - believe that establishing a threshold question is still a bit unclear. It's hard to set thresholds when the criteria themselves could use a little more quantifying. Perhaps NARUC Electricity Committee Chairman Jimmy Ervin's formulation of considering the totality of the circumstances may make some sense and it is worth examining. As to the number of NIETCs and a cap, I think our message here would be that NIETC designation should be done sparingly with sensitivity and deference to impacted states. NIETC designation should be made wherever the evidence indicates that they are necessary to meet the specified criteria.

In short, OMS recommends few corridors, limiting to those that are showing serious constraints and where attention is needed. I will make myself available for further questions, that is a broad overview and I thank you for your attention.

**Jody Erikson, Facilitator**

Thank you, Kevin.

**Ed Tatum**, *Assistant Vice President, Rates & Regulations, Old Dominion Electric Cooperative*

I'm not as tall as Kevin. I'm Ed Tatum. I'm with Old Dominion Electric Cooperative. Today I'm speaking on behalf of a number of public power entities. As we put this together, folks from APPA and NRECA, as you can look at their comments, as well as our own, so I'm trying to fuse all those together. So although you're not going to be treated to the eloquence of Sue Kelly, I'm going to do my best. We thank DOE for the opportunity to be here and we think it is a very important initiative.

Can I have the next slide, please. In a true "Goldilocks" tradition, the corridors need to be *just right*. We are moving forward with the concept that the purpose of this initiative is to indeed get transmission built, needed transmission built, and subsequently if we get too broad a designation we could frustrate Congress' intent and we think that a good way to move forward is identification of specific facilities rather than the family of alternatives. Again, too many choices, too much time and folks seem to have a desire, a strong desire to move on.

Next slide, please. In order to do this we urge that the existing infrastructure points be used with generalized paths in between. Craig Glazer, make sure you are sitting down, but this is where I think PJM got it right with regards to the Mountaineer Project and I'll show you a slide in a few minutes there.

But again in order to make these things work, we need off-ramps and we have existing facilities that would be viable off-ramps. The opportunity to upgrade existing facilities or utilize existing right-of-ways should not be discounted. It is very hard to site new facilities as AEP is willing to attest.

We need to actually have corridors that actually get into the congested areas. We live on Delmarva Peninsula, I am sure you have heard about that.

Finally, if we do have existing infrastructure points with generalized paths between, we feel that is the right mix, if you will, of opportunity for the state to get in and actually do its necessary siting. There still should be adequate latitude there.

Next slide, please. The designation of a corridor should be an affirmative – an actual affirmation of the need for transmission - and so another aspect that is very important is the need for an open, inclusive regional planning process and would like to talk about developing some predetermined criteria for that, which would identify the specific facilities and the scope. We would hope that a regional plan and a process would also facilitate investment by non-traditional utilities such as Old Dominion or municipalities in the area.

Next one, please. The openness of the process I think is very important. As we talked today about how to get things done, consider having a regional plan that involves all the stakeholders and you have that buy-in. Subsequently, when we have the designation of the national corridor, you know that the stakeholders are ready to go and that it is something will actually get built, I think that is very powerful.

Other aspects of the plan would be assess delivery and export regions. This is not too dissimilar I believe from the concept of a constrained area. So I'd like to talk more about that. We think economics and reliability are equally important. Back in the old days with the IRP, we built facilities not only for reliability but for economics and would like to be able to recreate that paradigm here in a competitive environment. Chronic load pockets and specific LSE impacts should be evaluated, as well.

Next slide, thank you. It should include resource adequacy - similar to what PJM is doing - make sure we have the ability for deliverability of new and surplus baseload generation. And again we wish to make sure we maintain viability of long-term rights.

Next. Here is the picture that I like. This is the original Project Mountaineer. And again this shows what I think is a good level of mix between path designation and specificity. You see actual, existing infrastructure points, but generalized corridors to try to get to them. You could make these corridors wider and actually we propose making this other one a wee bit wider, coming in further south to interconnect with our generating plant and then move on up to our Delmarva Peninsula. That is an example.

Next slide, please. Criteria - very quickly. For criterion two and three, we agree with the assessment of a longer-term approach, you need to look ahead in determining how it's going to work, as well as looking at your existing congestion conditions. We do ask that you provide sufficient granularity for areas that have been identified as chronic load pockets.

For four and five, we agree that they should be considered, but have less of direct impact and we'd ask that you give more weight to proven and dependable technologies.

Final slide, criteria eight, we do strongly believe as part of any planning process we like to point out it is not in section 216A4, we think it has the ability to derail us and we urge that folks take a look at this process that is actually being able to get new transmission built. Transmission is not a commodity, whether we view it as an enabler. I'll be around for questions and I thank you for your attention.

**Jody Erikson, Facilitator**

Wayne Walker.

**Wayne Walker**, *Director of Project Development, Horizon Wind Energy*

Thank you. Good afternoon. My name is Wayne Walker. I develop projects for Horizon Wind Energy, formerly known as Zilkha Renewable Energy. Horizon was acquired by Goldman Sachs last year and since

the acquisition, Goldman has contributed significant capital resources to our company because it believes the prospects for growth in the wind industry both today and in the future are extremely strong.

Thank you for the opportunity to present our views on transmission corridors. I'm also representing the American Wind Energy Association and its over 750 members of developers, manufacturers, construction firms, and other members in the industry. We have filed comments with the Department along with Renewable Northwest, Center for Energy Efficiency and Renewable Technologies, the Wind Coalition, Wind on the Wires, Interwest Energy Alliance, and of course my company, Horizon Wind.

We believe there is a national interest in building transmission to access wind resources. The President recently said that 20% of our electricity should come from wind, and wind has benefited from several years of bipartisan support in the United States Congress. There is clearly a national interest in reducing our dependence on foreign sources of energy, shifting supply to clean, renewable energy and bringing development to rural economies. The United States is blessed with vast wind resources. The first map displayed shows high quality wind resources around the country. The darker colors indicate the highest average wind speeds. You can see that these are often distant from population centers, thus the importance of transmission in developing wind energy resources.

Next slide, please. The second map shows the corridors that we believe would best link wind-rich areas to the high-voltage transmission grid. These corridors come from a number of regional transmission plans, including Southwest Power Pool's, Kansas/Panhandle Sub-Regional Transmission Plan, also known as the "X-Plan", as you can see, Texas, Oklahoma, and Kansas. Other plans include those of the Imperial Valley Study Group, the report of the HIPSP collaborative study group, report of the BPA Infrastructure Technical Review, Rocky Mountain Area Transmission Study, and the Midwest Transmission Expansion Plan.

Next slide, please. The third map shows these corridors and the wind resources overlaid onto the same map. You can see how these corridors would bring power from wind-rich areas closer to load centers.

I want to make a few comments on the proposed criteria. First, we would like to emphasize the provisions in the law that we do not believe are sufficiently reflected in the Department's proposed criteria. The law includes the criteria on supply diversification. Clearly, wind energy, which only provides 1% of current electricity supply, could significantly decrease diversity. The same cannot be said for other resources that already provide 20 to 50% of today's electricity. The proposed criteria do not clearly -- do not clearly include supply diversification.

Second, I would like to emphasize the criterion enhancing the energy independence of the United States. Tapping domestic wind resources furthers this energy independence goal. This criterion in the law was accurately covered in the proposed criteria and we appreciate that.

Third, I would like to emphasize the provision in the law furthering national energy policy. We can point to any number of policy statements indicating clean domestic resources are consistent with national energy policy. Unfortunately, the Department's proposal provides no discussion or metrics for this criterion, leading us to believe the Department may not intend to follow through on this goal. We encourage the Department to review the goals of the Western Governors' Association, Midwest Governors' Association and the President's advanced energy initiative to develop metric for this criteria.

Fourth, in addition to the benefits of building new transmission lines and the benefit of national energy policy, many of the proposed corridors you see before you will enable existing state policies such as renewable portfolio standards to be met by importing wind energy from adjacent states with robust wind resources.

Finally, I encourage the DOE to remember that while there is great value and importance to carry out designated NIETCs, it is only part of the equation to realize an effective, fully implemented plan to get newer expanded infrastructure in the ground.

The cost allocation, which I know is not in the DOE's domain, must be addressed and the wind industry believes the Department should monitor the benefits of the transmission expansion model recently adopted by the State of Texas, the fastest growing market for wind energy in the United States. This model, which will bring rapid supply diversification, cost savings and environmental benefits to citizens in the immediate future.

I hope the Department finds our comments on the criteria useful as it implements an extremely important piece of the Energy Policy Act. Thank you for your time. I will be happy to answer any questions at the conclusion of the speakers.

**Jody Erikson, Facilitator**

Thank you. Wayne Snowdon.

**Wayne Snowdon**, *Vice Chair, Canadian Electricity Association Transmission Council; Vice President, Transmission, NB Power*

Thank you. My name is Wayne Snowdon. I serve as vice chair of the Canadian Electrical Association Transmission Council, which is a national forum and voice for transmission business in Canada. Our membership accounts for most of the transmission installed capacity and on behalf of the CEA I would like to thank the DOE for the opportunity to speak today.

To address the question of how the designation of constrained areas in national corridors can be addressed on a bi-national basis between Canada and the U.S., I'll give a brief overview of existing transmission interconnections between the two countries, comment on the congestion study from the Canadian perspective, and then finally have a brief comment on the criteria set forth by the DOE.

This first slide shows the major interties in five geographical areas across the border from the Pacific Northwest through Ontario and the Great Lakes region into Quebec and Maritime in the New England area. Currently there are a number of transmission lines in various stages of development between several provinces and the states and there's more in the discussion stages. A key factor driving all these developments and discussions is the issue of cross-border constraints. Now I can tell you personally from being involved in the development from the Maritime there is active discussions between Canada and the U.S. on how these constraints can be identified and dealt with.

The next slide shows that virtually all provinces that are bordering on the U.S. have trades with electricity with their U.S. counterparts. Traditionally, Canadian provinces have been net exporters of electricity, but in recent years because of growing demand and supply constraints in Canada, as you can see there are two provinces, Alberta and Ontario, have been net importers from the U.S.

On the subject of cross-border congestion, as recognized by the 2002 National Transmission grid study, there is value in assessing transmission constraints across the border. Cross-border constraints inhibit electricity trade and have the potential to compromise reliability. For example, congestion in the Pacific Northwest limits the opportunity for cross-border trade, leaving potential suppliers of power unavailable to constrained regions.

In its comments to the DOE on the 2004 notice regarding designation of national bottlenecks, the CEA stated the reliability of the transmission grid and the efficiency of the electricity of North America cannot be properly addressed without full engagement and cooperation of both the U.S. and Canadian entities. We strongly believe this and as seen by the level of integration of the system this cooperation is not an option, it's a

necessity. That cooperation must also have an eye for the future. It is important to note that Canada has significant undeveloped generation potential, testament that there are technically feasible hydro generation capacity alone in over 600 kilowatt hours a year and there are growing discussions of nuclear development in several provinces, while new development opportunities remain uncertain because regulatory and policy hurdles resources are abundant. And finally major wind development is starting to be a key initiative in Canada.

The key to all of these is the development of available transmission capacity. By identifying constraints along the border there will be further opportunity for promoting this development enhancing trade. CEA continues to believe that a North American approach should be incorporated into both the development of electricity transmission congestion studies and the consideration of national corridors. Just as the development of the electricity reliability organization, ERO, was from the beginning an international discussion, so should the deliberations on congestion and new corridors.

By including the North American agent in the criteria for designating national corridors, the DOE could facilitate the deployment of appropriate measures to address these constraints, enhance reliability and diverse energy mix and economic supply.

I was going to comment on the criteria number four. Today's comment or clarification relieves some of that concern in reducing dependence on energy imports. Because the CEA believes that reliability of the grid, as well as the robust electricity market, any criteria that could serve to enhance trade should be revised. In terms of bilateral cooperation or bi-national cooperation, the next step, the CEA recognizes that it is sometimes a challenge to develop a mechanism for international coordination. Even the word coordination can be problematic because some find it suggestive of control by one jurisdiction over the other. The fact remains addressing these challenges of working across a border presents all involved, including and ultimately the consumer that assured the guarantee of reliability and ultimately power supply. The identification of constraints along the border and then dealing in a cooperative matter with those constraints will help industry and regulators on both sides of the border to plan for a robust North American transition grid.

In closing, the Canadian Electrical Association is committed to cooperating with the DOE in both identifying cross-border constraints and at facilitating a by initial bylaws. We appreciate the opportunity to participate here and look forward to our continuing engagement. Thank you.

**Jody Erikson, Facilitator**

Okay. Thank you. Okay. We're going to open up for questions. We'll start with DOE on the panel and then we'll open up to the room.

**David Meyer**

Okay. I thank you very much – appreciate the comments from the panelists. Let me start off by saying that in the NOI in our references to energy independence, if we didn't make it very explicit that we did not intend for those references to pertain to cross border energy flows, that was an oversight on our part. And so, if we didn't make that clear, I'm sorry.

I want to ask again a question of the panelists, but it pertains to the audience and the webcast listeners, also. That is: in our proposed concept of the corridor, we said generalized electricity paths between two or more points. And we fairly consciously didn't include any particular proposal about wind. It's -- we pretty much deliberately left that unspecified. And so I want to see whether that still works for people. That is keeping in effect a path, but not specifying any particular width for that path. In terms of achieving the purposes and the benefits that people see associated with corridors, can you achieve those benefits without having a specific task with identified -- so I just want some exploration of that issue.

**Panel Member**

*Mary Ellen Paravalos, National Grid.* I think it will be difficult to necessarily say you always have to have a width on it and more so to try to put miles around what kind of width you should have it in makes even less sense, particularly when you're talking about the whole of the United States. I see the issue. I almost think that you need to wait until you have the case before you and see what makes the most sense. But at least from my perspective, I would not try to be too rigid with it, particularly before you get into the case-by-case look at it.

**David Meyer**

But even once you get to the case level and you're thinking about it in terms of a particular case, the question is still there, is it necessary to specify a width, or in what way would it be beneficial to specify a width? And from our point of view, we're talking about satisfying particular needs here and in -- to me, in that sense the notion of width is probably not relevant if you're simply talking about something to enable the flow of the substantial amount of electricity from point A to point B, possibly going through certain intermediate points along the way.

**Panel Member**

*Mary Ellen Paravalos, National Grid.* The only addition I'd make is let's -- I think we should remember that the corridor designation may ultimately lead one day to FERC backstop authority if necessary. So you do at least need to make sure that if and when you ever get there, 99% of the cases you probably won't, but if and when you ever get there you need to make sure that FERC can administer its backstop authority. Thinking just quickly it doesn't seem to me like you need a width to do that. But I think we'd all want to make certain of that before you head down the road you are suggesting.

**Panel Member**

*Michael Heyeck, AEP.* I agree with Mary Ellen's comments. But we're trying to -- there's no "but" in that, actually. We're trying to figure this out with respect to how we draw our line on the map and even our line on a map is conceptual in nature. Because PJM will determine the interconnection points, but just take a look at the PJM cut planes, basically the interfaces, those are the problem areas. There's probably a couple hundred miles in length, for example. But at end of the day, we're going to need some guidance as to does one line traverse that, or do two lines traverse that? If you take a look at the multi-step process that not only we suggest, but also some others, I think once you discuss the constraint area or put that out there and regional processes or some process that is open to determine the solution, I think that will give you some clarity enough if the DOE has to come in a third step and actually designate that corridor and that corridor may be something between substation A and substation B. It doesn't have to be hundred miles in width or hundred feet in width. But at that time, that open process yields the solution.

**Panel Member**

*Ed Tatum, Old Dominion.* And I think what Mike and Mary Ellen were talking about is a concern to us. Slide seven of my presentation, the Project Mountaineer, again if you look at the cut planes of PJM that is tremendously, hundreds of miles. However, the concept of these specific interim facilities that already exist, the off-ramps, if you will, I think are very critical in coming up with what the actual designation of what the corridor should be. You've got to be able to get there from here and you need a few off-ramps on the way. So I think that's very helpful if we are designating corridors to provide the necessary back-up and support and cover, if you will, that everyone needs in order to get the facilities licensed, there is adequate amount of width, if you will. However much width you wish between some of these critical existing facilities.

**Panel Member**

*Wayne Walker, Horizon Wind Energy.* David, my comment would be that obviously when you after you look at your regional study you decide the size of the transmission infrastructure that you need to do there. Initially the width would be dictated of course by obvious safety considerations. Once you decide the line, you know we obviously want to minimize environmental impact as we build these lines and do our EA or EISs or whatever we need to do.

Also, it is my understanding that if that corridor you were to build say two large structures, say two 345 kVs or two 500 kVs, there is a NERC standard that there would be some degree of separation from those lines so that in one situation if a tornado came through and wiped out one, you would still have the other one. If they are right beside each other, you couldn't meet that criterion. I don't know what that distance is; I'm sure many people in this room that do.

Finally, as we all know, building transmission as AEP has talked about is a very difficult endeavor. Once we designate a corridor and get the infrastructure built there, I hope we can design some amount of flexibility for future expansion of that same corridor versus having to go back in 20 or 25, 30 years or whatever the time may be and have to designate new corridors and go through these things again.

**Jody Erikson, Facilitator**

No questions for right now. Okay. Let's go ahead and open it up, particularly since David's last question about width still applies to all of you. So I'm going to --

**Audience Member**

*Bill Smith, Organization of MISO States.* And I wanted to challenge Mary Ellen a little bit on the expiration question. It seems to me there's a legislative scheme that says the study supports the corridors, the facts that flow from the study are the logical support for a corridor designation. It seems to me if that is the case that support has to be reviewed, at least, at the time of the next study. And then either it continues to be a critical area and the designation continues or it is possible that for some reason it would fall off the list and at that point the basis for the designation has expired. It's not a critical one in the sense that it used to be. There's probably some procedural step that needs to protect people that may have made investments in the meantime. If they've reached the point of making a filing to FERC or some other procedural step, then that provision continues with respect to that filing. But overall, I think that they do have to -- it is probably valuable to clean out the back of the refrigerator at some point.

And likewise, if a project or a designation results in final authorization of a project, that can consist of whatever permitting pieces you would like to designate, but once those authorities have been issued and construction is authorized and presumably gets underway, again, at that point that designation ought to end because the need will look different going forward and needs to be reevaluated in the next study before further projects would fall under corridor designation in that particular location.

**Panel Member**

*Mary Ellen Paravalos, National Grid.* Could I respond? Just I would agree that the three-year tri-annual schedule serves as a potential vehicle for reassessing corridors. So I don't argue with that. But I think that a goal would be to reassess the corridors. I would not want to stop looking at other potential corridors particularly if they have nothing to do with the corridors already designated to focus on reevaluating corridor designations every three years unless the congestion study can encompass all of that.

So what I caution against is an automatic expiration after three years. I believe in the congestion study, if they didn't can get to it or the, you know, the results maybe were inconclusive...three years seems to be a very short amount of time when we're talking about corridor designation and transmission lead times. So I'm

all for the target of reassessing these every so often. I just personally wouldn't want automatic fall-off of cleaning out the back of the refrigerator, because this is more important than smelly food in the back of one's refrigerator. So I just caution with that.

**Panel Member**

*Mike Heyeck, AEP.* I'd like to add to that. Again, I agree with Mary Ellen. But in context with the Wyoming-Jackson's Ferry line, before we put a spade in the ground it was \$50 million. And if we have this uncertainty about NIETC designation, do we run the risk of hundreds of millions of dollars of abandonment charges that go to customers? So we need to be very clear that we believe that the Energy Policy Act is calling for some certainty with respect to recovery of transmission and incentives issues, which should also give some certainty with respect to the NIETC designation. Certainly there is a renewal proposition. But in the order of things, in transmission, three years is a very short period of time.

**Poonum Agrawal**

I'll just add to that. I think it was alluded to a bit earlier, in that whether we would have the designation be for a set time or not. And when we identify the corridors relative to constraint area we would do -- we would work with the regions and the states to do some sort of analysis to determine to what extent the proposed project alleviates constraint that has been identified, and we would use that same analysis again and our congestion study to determine whether that constraint continues to exist or not. And understanding that there are long lead times for those constraints to be removed relative to a project that is being built, that would be the basis for determining whether a constraint is removed or not.

**Panel Member**

*Ed Tatum, Old Dominion.* I appreciate that clarification. As Mike was talking about the line he referenced, it was something AEP had planned and spent a good amount of money in getting ready to build. It was clear that they were going to build that line in some -- not as clear as maybe they would have liked to have been at the time. They certainly had every intention of building it as a critical line.

I submit to you that if we have the regional planning process that I referred to in my comments of open, inclusive where the stakeholders have all looked at a facility and we have criteria by which we've measured it, we've studied it and looked at existing congestion, as well as projected we would want to have a little bit more longevity, if you will, from some of the corridors. And that is when we're talking about use of existing facility in the off-ramps. If it's integrated in existing system, modify that existing underlying system, as well, in order to accommodate these larger high-voltage lines. It will only be as good as m-minus one or two depending on the size of the area. Thank you.

**Panel Member**

*Mike Heyeck, AEP.* Excuse me, let me -- if I could further the answer. Thank you for the clarification, Poonum. Certainly we don't want to build transmission for nothing. We don't want to make that investment for nothing. So there's got to be some middle ground between the issue of the constraint going away and the certainty of building. That's why we hope the criteria is forward-looking and certainly if this continuity has come into play such as generation retirements or new generation development, I think through a process such as what PJM employs would be very helpful in re-certifying any NIETC designation.

**Poonum Agrawal**

One more comment relative to that. There probably would be some process by which once a corridor is designated, it's given corridor status until it the project is completed so that if there is any changes in the system in terms of new generations or retirement or some other thing that impacts the constraint, it doesn't impact the project that is proposed. We're assuming that with the analysis that takes place, it would account



for those sorts of things. But in the extreme case that something like that happens, that project would continue to have that status until it was built.

**Audience Member**

*Larry Salomone, Washington Group International.* A question for the Department of Energy. My question is in doing your analysis have you specifically considered scenarios of looking at the Homeland Security issue?

**Poonum Agrawal**

The simple answer is not really; not exactly. And I think we were talking offline about this – one way we were considering approaching this was to use the criteria to come up with some assessment or measure of national security and energy security. An alternative to that, or to any metric, is to do a scenario analysis to determine what impacts there might be in that situation. And if you have suggestions for what sort of scenario to run in that case, that would be helpful.

**David Meyer**

I think this is an excellent subject for us to address in terms of subsequent rounds of this work. And that we were building to a great extent on existing studies and some of those studies, I hope some of them have taken this kind of question into account, but I'm sure not all of them have. But on a going-forward basis, this is something that can be taken into account in a more systematic way. So I think that is a fruitful thing to be looking at as we go forward.

**Audience Member**

*Larry Salomone, Washington International Group.* The second question I had in terms of helping you refine your criteria is looking at the market demand. In looking at the growth areas in this country, it could help identify areas for your study, in looking at the geographic maps represented by the speakers and presentations today, I did not see anything in the Carolinas, which is a rapidly-growing area and I was just wondering whether you had that input for the Carolinas or could someone speak similar to these other regions with respect to the plans in the Carolinas?

**David Meyer**

The body of studies that is we're going on is pretty comprehensive, pretty inclusive. Both east and west. So in that sense I think we have pretty good coverage. The areas where we don't have formal planning organizations, there – the studies typically don't cover as broad a geographic sweep as some of the other studies. So, in that sense, maybe we're not looking at some of the regional issues that really ought to – large issues across large amounts of territory that arguably need more attention. Yes. But there again these are things that we can shoot for as we go forward.

**Poonum Agrawal**

You know, one thing I would add is that as I mentioned earlier this morning, we are seeing differences in the level of data available and information available in different regions and as we move forward either in this round or subsequent rounds we will work with the regions to address those data gaps or the differences in the data because there are some areas, maybe not in the sense of generation, but in other information that we might be lacking information in those areas.

**Audience Member**

*Alison Silverstein, Alison Silverstein Consulting.* I have a question for everybody. This afternoon and this morning several of the speakers mentioned cost effectiveness and how you all don't want to build a line that hasn't passed some cost effectiveness test, although you don't know what that is. But when I look at the history of transmission it is clear that lots of PSCs haven't been able to find cost effectiveness in lines that are clearly justifiable by reliability and it is also clear that a lot of transmission lines justified by economic needs

can't always pass the PUC scrutiny per cost effectiveness. And many times that is merely due to issues of beneficiary counting and cost allocation. I shouldn't say merely, it's a big deal. But nonetheless, not everything that is clearly needed for transmission for whatever reason passes some cost effectiveness measure.

1221 says there are a lot of good reasons to build new transmission for non-reliability purposes like national security and energy independence. Pretty much it is a given that these things will not pass the cost-effectiveness test, either. And the statute 1221 doesn't actually require cost effectiveness finding even though many states do.

So my question for you is: how do we deal with this? If these kinds of things are needed for reasons like national security, I doubt that we're going to be able to really cleanly parse out who the beneficiaries are for building a new line to Cheyenne Mountain, for instance. Or for energy independence you can't merely say that there is some set of beneficiaries that you're going to sic this on who are going to – who are going to be better off by doing the Kansas line or the line from the Dakotas to the Midwest. So let's talk for a couple minutes about cost effectiveness and how important this is or isn't and whether – no matter how valid the reasons are to build something that aren't about reliability, is the cost effectiveness always going to be what makes or breaks something regardless of the NIETC designation? Thank you.

**Panel Member**

*Ed Tatum, Old Dominion.* I think your question is where does cost effectiveness fit into the scheme here? And you're absolutely correct in citing previous circumstances where facilities have been disallowed. Our concept – and that's why we are so very strong in pushing the concept of a regional plan that includes all the stakeholders. I think in PJM we have the essential foundation to make that come to fruition. Better incorporation of all stakeholders within PJM, not just the transmission owners, but all the stakeholders affected by transmission, including the regulatory folks. And we have this vehicle via OPSI now. I think would give us an opportunity to get around some of those issues. But with regard – and you can work on both the local planning within the individual transmission owner zones, making that more open and inclusive and encompassing, as well on the regional side. On the regional side, I would hope we come up with some specific criteria to evaluate facilities and have the benefit in cost set forth. But at the end of the day, if we don't have broad enough criteria, in other words, the folks in Ohio might be very well benefiting from a new generating plant there that they'd be exporting energy to the east, those should be helpful things to us as we try to do a cost benefit. But we need to think a bit further out of the box than we have been so far.

**Panel Member**

*David Till, TVA.* I think you make an excellent point, Alison. And we can go only so far in our criteria in looking to address this. I thought, as I was thinking about coming here to the panel, about TVA and the circumstances under which it was formed. We had a large area of the country that it wasn't economically beneficial to anybody to develop. And the government had a vision. And they put a cost mechanism in the vision and the taxpayers paid for TVA and the rate payers paid the taxpayers back based on rates that included a payment to the taxpayer. 75 years ago nobody would have looked at the Appalachian area and said there is an economic reason to go in here, there is a benefit to anybody other than a few people who lived in the area who were very poor to go in here, and yet the vision was there. And that's what I'd like us not to miss on this Energy Policy Act. There is a vision. It is a market vision. Today it's very easy to look at the State of Tennessee and parts of six states surrounding it and say: well, you know, we all have an interest in having some transmission lines through that area today. At the same time, TVA, while it was birthed out of that vision, is bound by cross-mechanisms where we can only justify what benefits our native load. And so I think it is a common frustration, but I believe that the vision of the Energy Policy Act has to be accompanied by some practicalities that put a mechanism in place to fulfill that vision.

**Panel Member**

*Wayne Walker, Horizon Wind.* Alison, I second that opinion. That was an excellent question. Having been witness to some of the debates about what criteria we use to determine new transmission lines, at the regional level, at least in SPP and monitoring the legislature and ERCOT in Texas. I'm not wholly confident that right now those cost analysis models are able to take into account these qualitative objectives of the Energy Policy Act. And while I would hope that could be addressed at the regional level and existing planning process if it cannot be done it can't be done rapidly, then I would look to DOE to take direction of these other objectives in the Acts, such as like I explained earlier during my presentation. So I would absolutely think we have to take these into account. We can't just look at what is the cheapest thing all the time at this moment in time. We have to look into the future and what is going to be the greatest benefit of putting multiple corridors in place so that, you know, the country as a whole benefits from this grand vision.

**Panel Member**

*Mary Ellen Paravalos, National Grid.* I want to jump on the bandwagon because I also think it was a great question. Thanks, Alison. There is a risk that we get hung up on cost effectiveness and what that means to folks. Although it's going to be a factor, it is decided transmission should go from point A to Point B, we want to make sure it is not unduly a Cadillac and that it is a reasonable project, one that if not short-sighted it looks into the future, but that it is something that has sort of a regulatory stamp of approval as appropriate. That being said, I think a lot of the objectives in the Energy Policy Act clearly cannot be easily quantified, either policy objectives, these might be strategic objectives and so forth. What I think we need to ultimately make sure is that in this FERC backstop authority that they have enough latitude that if it comes to that and they can recognize strategic policy directives, as well as cost effectiveness - but not exclusively - to make sure that they do what they need to do and get needed transmission to fulfill the Energy Policy Act's objective.

**Panel Member**

*Mike Heyeck, AEP.* I just want to take a different tact. I agree with the comments made by others. There are 12 other countries pursuing higher voltage transmission than we are. There are many, many other countries pursuing higher technologies and advanced technologies than we are. And the reason it seems - I really don't know what the really is - but a 765,000 volt transmission system has been around for nearly 40 years. And you could build a high-capacity line and we intend to build the highest-capacity, most reliable line in the country using advanced technologies with the project we're proposing. With 200 foot of right-of-way you can get about 1.5 to 3 times the capacity of a 500 kV line. Japan has looked at double-circuit 1,000 kV. There's better way to use our right-of-way, and we need to use advanced technologies. We have to stop doing things the way we have done them just because we have done them that way in the past.

**Panel Member**

*Kevin Wright, Organization of MISO States.* And Alison, your question was right, a bit provocative, at least to us from a Public Utility Commission's point. I have to respond. I'm going to respond in a way I think is optimistic. We are all - whether at a regional state committee like the Organization of MISO States, or SPP, or the Organization of PJM states - cost benefit is something we are looking under from day-to-day, whether it is in the operation of the RTOs or to work at home. And knowing that whatever transmission is decided that cost eventually in our retail customers to whom state commissioners are responsible and accountable to governors and legislature that is appoint them.

But I'm a bit optimistic because I truly believe in the regional and state committee. And I think the success - this whole cost benefit is a very stubborn problem. But I think it's something that can be worked around and I'm optimistic that the regional/state committees can do that because inherently we have to keep looking at a regional approach to problem-solving. I've seen some successes in SPP as an example, where those states were able to get together and sort out and figure out a transmission allocation. Within MISO and OMS, we have been locked for a long period of time in trying to provide a transmission planning and expansion process

that is more regional. And the cost allocation recovery is more equitable. It's going to take some time, but I think I'm a little optimistic that as time goes on state regulators are looking more beyond their own borders, although there are some restrictions and exceptions and my hope is that we won't be entirely constrained by cost benefits, that we will look at other factors. And in the long run, we have to be concerned about reliability and the economic vitality of our region from which we all benefit. I think that's where I see the regional state committee value being and that's where I hope we can move the commission.

**Jody Erikson, Facilitator**

I'm going to have Ken and then Poonum has a question from the web and then a couple right here.

**Audience Member**

*Kenneth Glick, California Energy Commission.* My question is directed to the earnest friends of the Department of Energy and anybody who would like to contribute from the panel. In a corridor designation that represents applying these criteria, examining a wire versus non-wire solution for a perceived problem, and coming to a judgment that a non-wire solution is preferred and that it is in the national interest to build transmission infrastructure. Given all of this, what would be the legal pre-emptive effect of a corridor designation should the FERC backstop authority be invoked? For instance, would it no longer be necessary to examine the issue of need in context of a PCN determination or NEPA determination, would it no longer be necessary to consider the option of a non-wire alternative and a NEPA analysis of a project that was filed within a corridor? Thank you.

**David Meyer**

Good questions. (Laughter) And to some extent they are questions that FERC would presumably have to address, not that we DOE would be disinterested, but at that point it is essentially FERC's responsibility, I should think. And I appreciate your bringing those questions to our attention. I think it is relevant we should be thinking about that. That is part of the process.

**Poonum Agrawal**

I'm just wanted to add to that. I believe that the process that we've outlined would make the question of what alternatives are considered part of the regional planning process, so it would not be DOE evaluating the different options or solutions, we would – I don't want to use the word "rely" solely but we would work closely with the regions in the states to consider what options - or review what options had been considered and take proposals for what the project should be proposed relative to a constraint. And just on a sidebar, we are coordinate FERC on this topic. In fact, if you haven't noticed, there is FERC staff in the room. So we plan to work closely with them on this.

Are we going to web questions now? Okay.

Just one other comment on the previous discussion. You mentioned technology and the need for technology whether it be — just current technology or advanced technology to be included in the development of the grid system and I would be remiss if I didn't mention that our office does R&D on new transmission technology and we feel it is imperative that the market and the industry consider what – consider the appropriate technologies with a long-term perspective because that issue has been something that has been a great challenge in the United States. So that's an important point and we need to take that into account. There are some issue that can be addressed through technology and some through regulation and we need to determine which ones and it is not necessarily the DOE who does that, but the market needs to be taking that into account.

**Jody Erikson, Facilitator**

I just wanted to say, we have about 15 minutes before we do the next step so we've got Poonum's question, I've got one, two, three, four, five people. So six people so keep your questions short and answers from the panel concise and useful so we can get those in.

**Poonum Agrawal**

Okay. Thank you. I just have two questions from the web here.

One, I think is a comment, but I think it's related to what Alison was talking about.

From Curtis Stepanek, Ameren Services Company. And he says:

As a representative of a transmission owner, we find it interesting that there is so much interest in relieving congestion. In practice, when congestion is an issue and a generator or load-serving entity is confronted with denied transmission service, neither entity is interested in pursuing network upgrades to allow the denied transmission service request to go through, no matter what the cost for the upgrade. We believe that the real issue with congestion is that these entities are often not interested in paying for the upgrades that are to their benefit. These entities want someone else to pay for the network upgrades so that they can take advantage of the upgrade. We need to get away from these ideas of others paying for upgrades that are only beneficial to the very few.

So, I wanted to make sure we read that one. And I'll go to another one and then we can see if there are any responses to that. Next question:

With most transmission projects there will be costs, winners and losers. Is there a way to have designated beneficiaries vote on whether the benefits –

and here the term is used "actual," I'm not sure exactly what that means, but is there a way for – I guess I'll reword the question:

Is there a way for people to comment on what the benefits are and what implications they have?

And so I would say before I turn it to David is that through the comment process that we would have when we propose constrained areas and corridors, we would allow comment on the benefits or implications are of those proposed designations.

**Audience Member**

*Les Pereira, Northern California Power Agency.* I would just like to touch upon a couple of the criteria: reliability and economics. I think the two are so closely related, and they impact each other, so we need to be very careful in picking the criteria about thresholds and I think there is more discussion needed here.

The other thing I'd like to discuss is the differences between the east and the west. The eastern interconnection is very well-integrated. Much larger too from the point of view of oscillations and phenomenon like that. In the west, we are much more sparse type of system where long lines connect to large loads so the issues of long lines and voltage distribution are pretty important.

The point I was trying to make is that if you build a large 500-kV, 2,000 megawatt line going across the system, that would have reliability effects even though it shows very good economics so any line 500-kV lines would have consequences and tripping of the line itself during peak loads would be an important event to look

at and we really need to look at both economics and reliability and they go hand in hand and go back and forth in making the simulations.

I would like to stress one other thing, which is the economic programs that we use currently are usually DC-programs, and they are used because of their easy conversion solutions, reasons of that nature. But the optimum power flow really - the classic optimum power flow is really an AC solution which takes into consideration the real system reaction to what's going on by way of flows and outages because voltages have to be taken into consideration in AC power flow but not in the DC and losses as well.

So one of the things I hear is that we don't have these AC tools, optimal powerful tools which can be used for long-term production simulation models. So here is one area that we could do some further research because there are companies which should be optimal power flow solution would like to actually double up their programs and this is one area where the DOE could spend some research money in improving the program because that's the ultimate in voltage constraints, as well as congestion: the dual-purpose program.

#### **Audience Member**

*Speaker Unidentified, PJM.* I'd just like to bring this all the way back to sort of where we started. An old boss once said: it is a successful day if you have two or three things that you come out with that you can think about. And I heard sort of three sort of threshold questions I'd like to hear from the panel on. Going all the way back to the discussion this morning and this afternoon.

Number one is what does the DOE designation process start and when does it stop? When does it get turned over to the states? When does it get turned over to FERC? That is question one I've heard.

Second is: does the department undertake a two-step process where in fact it goes back whatever initial consideration is goes back to the department for consideration of an alternative, a specific project, or is that something better left to the state commission siting processes, et cetera? Like to get some comment on that.

And the final one is there was a concern raised this morning about is there a problem if the corridors are extremely broad? If they are extremely long? And the Wind Energy Association has listed corridors from Albuquerque to San Diego, Denver to Las Vegas, et cetera. Is -- the people on the panel, I personally don't think that is a problem at this stage of the process. But I'd be interested in the panel's thoughts on that third issue.

So when does it start and stop?

Does DOE take a second look on a specific project, or is that left to others?

And if the panel does think there is a problem that at this early stage, the corridors are broadly defined.

Thank you.

#### **Panel Member**

*Mike Heyeck, AEP.* I'd like to answer that question. I think the five-step process we had in our comments outlines what is we thought: the problem, the determination and open process for solution, and then the DOE as lead agency and the federal lands and then the FERC backstop, and that is really a multi-step process. We'd like to think at AEP we started on January 31, 2006, with an early designation request. But we do recognize that and NOI was going out and we do like to have that application be the guinea pig, so to speak, for an early designation request. So when does it end? I hope it's not 16 years later.

**Panel Member**

*Mary Ellen Paravalos, National Grid.* If I could -- I think that the DOE process has started. It started when President Bush signed the legislation and the DOE got this bunch of work dropped in their lap. I think it certainly the congestion studies that they'll be issuing to the public will be iterative with their corridor designations, allowing for public input after the congestion study. And also with respect to potential corridor designation so I really think it's ongoing and iterative.

But I think the official handoff happens along the way when corridor designations happen and so it's potentially before FERC. There's a big, I think window of time between when there is a corridor designation and when it may actually show up before FERC and maybe it never will. And that is when really the regions and the states really roll up their sleeves and try to agree. I want to echo the comments of my colleague here that regional and state committees can play a big role here and maybe reduce the need or eliminate the need for it to ever get before FERC in the first place and I wholly endorse the objective of doing that.

With regard to -- I forgot the second question. But the third question was in regard to corridors being too long. I think part of this whole objective is to speak holistically, to think potentially nationally and whereas we want -- we as a nation want to do this in cooperation with the individual states; we don't want to do it state-by-state. And so the fact that some of this stuff is particularly long, potentially when you're talking about the great west doesn't at least cause our organization, you know, to think that is a problem. To me, that's part of facilitating the objective.

**Jody Erikson, Facilitator**

So I'm going to have Wayne and Ed jump in and then I have got three more questions still out there and five minutes so.

**Panel Member**

*Ed Tatum, Old Dominion.* I'll be very brief. Let's start now. I don't if it really needs to stop and I think that's something we can work through later on. I think this will be an iterative, evolutionary process.

Does DOE undertake a two-step process? It depends where you are. I think DOE is going to have to be nimble and flexible as we go through. I think in our neck of the woods, maybe we can do a one-step process. But I really feel that that one-step process has to be the result of an open, inclusive full stakeholder process so that we specifically identify the real scope.

And we go back to your Project Mountaineer example. There are specific facilities in there; we know that if we are really going to build transmission we're going to have to modify those facilities. In addition we're going to have to probably modify facilities underlying those. And so in order to have a true specification of what the cost is and subsequently the benefit, you need a corridor that is not overly wide. Okay. You need those end points. Length, I think you are fine with that. So I think you've got opportunities to move forward in all these areas, but the inclusive and specificity of the project is essential.

**Panel Member**

*Kevin Wright, Organization of MISO States.* I will just take the third one on the extremely long. I am not sure that will be a real problem in the Midwest. And again I'm an internal optimist.

And kind of as a follow-on to Alison's question, what gives me some optimism there is again part of the regional state committee urging is the Midwest Governors' protocol on transmission siting and planning, which I am not sure the Chief Executive Officers understand what they just signed, but they've agreed to be cooperative in siting transmission and coordinating transmission and planning through the Midwest, which I think is very huge. So, again, I look at that as a success, as an opportunity to coordinate and facilitate

transmission planning and siting, at least through the Midwest, assuming these politicians understood what they just signed about a year ago.

**Panel Member**

*Wayne Walker, Horizon Wind.* Very quickly. You know, I think the wind industry, we would look to support a one-step process. Obviously we want the regional, open processes to occur. Once those are done, the routes options for corridors to define, we would want DOE to go ahead and make that decision on what they're going to be and not have a multi-step process because that typically is going to slow things down and not meet the objective of the bill.

**Audience Member**

*Kathleen Quase, Chicago Solar Partnership.* I just want to emphasize the need to perhaps weight the criteria for non-wire solutions such as solar distributed generation, because part of the President's plan also solar powers America is to reduce the cost of solar and develop the industry on an accelerated rate, especially over the next 10 years to drive the cost down. And the current focus on the economic-only criteria is not properly evaluating really the attributes of solar as far as its peak power correlation, Homeland Security attributes, its displacement of natural gas in attainment of the overall goals of diversification and energy independence. So I'd just like to encourage you to think about that as you go forward. Thank you.

**Audience Member**

*Robert Reynolds, Peabody Energy.* The topic I have has to do with the identification of corridors on a map. Whenever I see corridors on a map, it brings to mind County and Township commissioners, State Department of Natural Resources, Zoning Boards, landowners, land speculators, state legislators and so on. Recognizing that we will have corridors on a map and there's the potential at least in my mind to engage activities at the grass roots level because of those corridors being on the map, would someone speak to how that process or how that eventuality will be managed as these corridors are identified? Thank you.

**Panel Member**

*Mike Heyeck, AEP.* We're speaking to all those landowners now. We haven't put a line on a map, which was conceptual and it invites an opportunity to speak to a lot of folks in outreach, even though the line really has to go through the line of the PJM process. Certainly various conferences, you have to have a lot of outreach to move through the process. All we're asking for really is to make sure the process of siting is more expedited than it has been in the past and that the delegations and the appeal processes and the open processes have good terms and conditions, if you will, good instruction as to when you do it, who you appeal to if you don't like the designation, and what is the process by which you ultimately site. I don't see the siting process in the states as being any different than we're doing today. But we do recognize that we have to get these transmission lines built a lot sooner. It takes a lot, it takes a matter of months to build a wind farm and it takes a matter of years to build a transmission line and we've got to connect those two a little bit — connect those two together.

**Audience Member**

*Tim Fagan, PSEG.* Kind of a follow-up from both this morning and from Ms. Silverstein earlier. I'd just like to get the opinion as much as we appreciate the people on the left side of the room. The right side of the room, you folks are writing the rules. The topic of cost benefit analysis.

One, are you intending to do cost benefit analysis for projects or depend on, you know, the other entities such as RTOs and regional state committees?

And number two, how are you going to balance the cost benefit analysis against the more subjective criteria that Ms. Silverstein referenced earlier with the national interest -- kind of national energy stuff? I mean,



almost -- would you consider some type of let's say -- I mean, attacks almost being applied nationally for a project that has national security concerns instead of imposing the cost on an RTO or a state where it happens to reside? Thank you.

#### **Panel Member**

*Mike Heyeck, AEP.* I know you are probably wishing to have answers from FERC rather than the Department of Energy. We do believe in socializing and as Ms. Silverstein would know that ERCOT, there is two impediments to transmission, who pays and siting. The issue of who pays goes away if interstate transmission is socialized. So the issue then becomes siting which is the subject of today's conference.

#### **David Meyer**

Let me bring up a question from what one of our web listeners has provided. It's sort of a -- somewhat broader version of the question that was just raised. The questioner says: who will pay for transmission built in response to the designation of national interest corridors?

And my quick sort of generic answer, and conceivably in particular cases it could come out differently. But my sort of basic answer is that the process of who pays or resolving who pays is not changed. It's not affected by designation of these corridors. A project would be paid for through the same mechanisms, whatever they might be if the corridor were not designated. Designating a corridor does not change that part of the process.

#### **Jody Erikson, Facilitator**

Okay. That's the end of the session. Thank you to the panel. If you want to just hang on, Poonum is going to talk about next step, so the so what. So now we have done this and explored a couple issues in greater depth, what is the next step?

#### **Summary, Next Steps, and Closing Remarks**

##### **Poonum Agrawal**

From our perspective, today's conference has been very, very productive. You heard in the morning our plans for moving forward with constrained areas based on analysis that we do in other information and a designation of projects that help alleviate those corridors.

We heard positive feedback to that. It seems like a proposal that will fly and seems to have merit and will work with the existing processes.

In session two, we got a range of perspective about adding value to the existing siting and planning processes. And how to coordinate with the states. The biggest issues there were how to consider alternatives, and that reliability is not really the issue - is not as much the issue - as is the economics. We heard that siting on federal land was an issue and we heard that cost recovery is an issue. Some of these issues are under our purview, some of them are not. But we anticipate having or continuing the dialogue regarding these issues collectively with the stakeholders and with both DOE and FERC.

We heard also about issues of data and assumptions and their robustness. We heard also about differences in disparities and information across different regions and those too will be addressed. We also, with regards to the modeling, need to raise more detailed questions about the -- the assumptions that are used in them and whether they actually reflect -- the actual experience of the system and we will address those moving forward, as well.

As we move forward after today's meeting, we will be issuing rules and guidance on what our early designation process will be and what our regular designation process will be. There will most likely be a comment period associated with that and if you haven't already, please sign up on our service list so that you can get updates as they are posted on our website and other information.

We'll have transcripts available of our meeting, as well, possibly within two weeks. And the presentations also will be posted.

There's one more thing that I was going to say and I cannot recall that right now. The rulemaking, regs and — I can't remember. I guess then with that, if there are no immediate questions about the next steps, I'll open that for a moment to see if there are.

**Audience Member**

Do we have a timeframe?

**Poonum Agrawal**

Do we have a timeframe for when we will be issuing rules or guidance on the processes?

**David Meyer**

I wish I could give specific dates. But I don't think that's — we will get these things out just as soon as we can. These are urgent issues for us but I can't give you a specific date.

**Poonum Agrawal:**

What I would add to that and I don't know if I'm going to get in trouble for saying this is — okay, two things I was going to add. We will open — we will accept comments on what you have heard today for up to two weeks, through April 14<sup>th</sup> we will accept comments to the email address that is listed in the inquiry. It is EPACT1221@hq.doe.gov. If anyone has any follow-up questions or comments, feel free to send those to us by April 14<sup>th</sup> and we will be able to consider them. That was the other point I was going to make.

The point I was going to make that could potentially get me in trouble was: in your comments let us know that this is urgent and that DOE needs to take action on this. Because there are sometimes issues that cause us to have to delay these sorts of things, and if we hear from you that there's urgent action necessary, it will hopefully help spur us to move along and deal with our internal issues.

Having said that (laughter) — what I would like to say is, I would like to thank all of you for taking the time to come here and address this important issue. We recognize that it is an important issue and that action is needed.

And we'd like to thank those of you that are on the web, if you are still there. We had over 130 people on the web, as well, and we were able to successfully get their questions answered, as well.

I'd like to thank the panelists for taking the time, especially on short notice, to attend and provide us with their comments. I also would like to thank those who helped us with the logistics and the facilitation. So thank you. And thank you to our DOE staff and project team as they continue to work on this especially.

And we appreciate your interest and concerns and we, as I mentioned earlier, look forward to continuing the dialogue as we move forward on this provision. So with that, David, unless you have anything else I'm going to close it. And thank you and have a safe trip back to wherever you are going.