ARGONNE NATIONAL LABORATORY (ANL)

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WIND ENERGY DEVELOPMENT
PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT
BISMARCK, NORTH DAKOTA
PUBLIC SCOPING MEETING

6:30 p.m.

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Wednesday, October 1, 2008

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New York New York Meeting Room Radisson Hotel Bismarck 605 East Broadway Avenue Bismarck, North Dakota

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JOHN HAYSE, ANL, Facilitator

ALSO PRESENT:

NICK STAS, Western Area Power Administration LLOYD JONES, U.S. Fish and Wildlife Service KARIN SINCLAIR, National Renewable Energy Laboratory

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PROCEEDINGS

MR. HAYSE: Welcome to the public scoping meeting for the Upper Great Plains Programmatic Environmental Impact Statement. And before we move into the rest of program for tonight, if I could, ask everybody in the audience to please double-check that your cell phone is either turned off or put to silent mode or vibrate mode, so -- just as a courtesy to our speakers and to other people in the audience. Okay? All right. good.

My name is John Hayse; I'm an environmental scientist at Argonne National Laboratory, which is a Department of Energy national lab, and I will be facilitating this public comment session tonight, just so you have a little idea of who I am.

The first thing I'd like to do is give you a very brief overview of the NEPA process, what a programmatic EIS is and some basic background about what is being planned

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for this particular project. This EIS is being prepared as part of the process that occurs under the National Environmental Policy Act for major federal actions that could have a significant impact on the environment.

And Western Area Power Administration and the U.S. Fish & Wildlife Service are the two lead agencies for this particular environmental impact statement, and they've determined that a programmatic EIS is the appropriate tool or document to prepare in this case to evaluate establishing specific programs and policies related to wind energy development within the Upper Great Plains And we'll get into a few more details about exactly what the proposed action is in a few moments.

One οf the first questions we should probably address is, what is а And a programmatic EIS programmatic EIS? intended to evaluate the environmental impacts that may occur as the result of implementing

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an agency action such as the development of a program or the setting of national policies.

So as such, programmatic EIS's typically look at generic impacts of the actions that are proposed. And in this case, that's related to wind energy development and connection to the energy grid. And we will also address potentially applicable mitigation measures.

Now, one of the things is not intended to do is programmatic EIS environmental evaluate the impacts specific development projects. Okay? There would be a separate process that would do This EIS is intended to help streamline the process that other specific development actions would go through.

So what is the proposed action in this particular case? Western and the U.S. Fish and Wildlife Service are interested in establishing a comprehensive environmental program for evaluating proposed wind energy

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impacts that would result from connection to Western's transmission system or that would be placed on U.S. Fish and Wildlife Service wetland or grassland easements within the Upper Great Plains Region.

Now, one of the intents of the proposed action is that we would identify, or that the agencies would identify mitigation strategies, standard construction practices and best management practices that could be used to reduce the potential environmental impacts from those development activities.

One of the things that's typically done or should be done for environmental impact statements is to evaluate alternatives.

And in this case, at least three alternatives will be considered.

First, the proposed action that I just described, which is the development of a comprehensive program for wind energy development by the two agencies. Second, a no-action alternative would be evaluated.

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Now, keep in mind "no action" doesn't necessarily mean that no wind energy would occur within either -- that would connect to Western's transmission grid or that would occur on wetland or grassland easements. It simply means that the existing situation would continue to occur.

And you'll hear more description about that tonight, but right now, in a very general sense, the existing situation is that proposals for connecting to the energy grid or proposals to develop wind energy projects on wetland or grassland easements are evaluated on a case-by-case basis. full NEPA So a evaluation is done for each of those particular projects.

Another alternative that's being considered at this point is that Western's portion of the proposed action, which is connection to the transmission related to grid, would go forward; however, the Service determine that they would not allow may

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further wind development on easements that they're responsible for.

Now, as part of this scoping process that we're doing right now and that this meeting is intended to be part of, other alternatives may also be identified that would be evaluated in the programmatic environmental impact statement. So that brings us to the question about what is scoping?

And basically, scoping is the first phase of public involvement that occurs in an environmental impact statement. It's a part of the process where the agencies intend to gather information from the public and other organizations related to the proposed action, which alternatives should be considered in the statement, are of the impact what some significant issues that need to be analyzed in that programmatic environmental impact statement, perhaps information about data that are available that could be used to help us conduct the analyses related to what the

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environmental impacts might be from the proposed action, and other concerns that interested individuals or organizations may have.

So this is a chance for the public and those organizations to provide feedback to the agencies about the things that they're interested in having evaluated in the impact statement.

Now, this is only one of the public opportunities for involvement in this programmatic EIS that will occur. As you can see on this slide, public scoping began on September 11. And we will continue to solicit public comments, or scoping comments, through November 10 of 2008.

Now, sometime during the fall or the winter of 2009, the draft EIS should be -- will be available for review by the public and by other agencies or organizations that would like to provide comments on that impact statement. And then, finally, the schedule is

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calling for the final environmental impact statement to be available; sometime during the summer of 2010 is our best guess right now.

One of the ways that the public can gather information about this project is through the project website. And you can see the URL address for that website on this screen. And it should be also on the fact sheets and some of the other pieces of paper that you were provided as you registered for the meeting tonight.

Now, that public website has information about the EIS process in general and specifically related to this project; it has information about wind energy resources and technologies. It will be a repository for documents related to the EIS that the public will be able to download and look at. Updates about the project and information about the project schedule will be provided there as well.

And then finally, we provide an

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online comment form that can be used provide either scoping comments at this point. Or later, when the review draft or when the draft EIS is available, it can be used to provide comments on that. And then there's also a possibility on that website that you can sign up if you're interested in getting email notifications related to activities for this project. So as major updates occur to project, documents are prepared, things like that, email notifications will be sent out to the people that sign up for that notification.

Now, the way that tonight's program is structured is that we have three speakers. We have Nick Stas from Western Area Power Administration, we have Lloyd Jones from the U.S. Fish and Wildlife Service's Division of Refuges, and Karin Sinclair, who is with the National Renewable Energy Lab's Wind Technology Center. And each of these speakers will give a brief presentation.

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In the case of Mr. Stas' and Mr. Jones' presentations, those will be related to -- those will provide information about what their agencies do, what their interest is in wind energy technology in particular. Karin Sinclair's presentation will deal specifically with wind technology, wind resources and other general information about wind energy development in particular.

So with that, I'd like to turn it over to our first Agency speaker, Nick Stas.

MR. STAS: Thank you, John.

And welcome to everybody that came out on this beautiful night in Bismarck. Му is Nick Stas; I'm the Regional name Environmental Manager out of Billings, Montana, for the Upper Great Plains Region, and I'm going to give first a brief overview of Western.

I know some of the folks know about us already; I see our Basin customers and other customers that are here. But this'll be

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a little bit of a review for your folks. I want to give the big picture of how this fits in, why embarking this we're on programmatic EIS, and also to give opportunity for some resources for folks that want to know more or want to get involved and comment.

the early This is stages; scoping is first opportunity for the interaction by the public. And I want to first say that I'm very excited about having U.S. Fish & Wildlife as a joint lead agency. And we've dealt with them on a site-by-site basis on some of the wind projects we've already had.

I'm also very pleased that we have Argonne National Laboratory, our colleagues from the Department of Energy, assisting us with the analysis of the effects wind approach. programmatic They extremely experienced. They prepared programmatic wind energy EIS for all the BLM

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lands in the western United States already and have a significant amount of experience in this area, especially on the programmatic EIS approach. And National Energy Labs has extreme expertise in the wind technology arena.

That being said, I'd like to introduce a few of my Western colleagues that are in the audience. Mr. Ed Weber is manager of the transmission. He's back there.

Also, assisting and working on the Mark Wieringa from our corporate EIS, office; from our corporate communications office, Mr. Randy Wilkerson. And I don't see my other colleagues right now, Dirk but Shulund and Rod O'Sullivan both are environmental specialists who work with me in the Billings regional office.

Well, what is Western? As has been stated, we're in the U.S. Department of Energy, an agency. We wholesale electric power, hydroelectric power, to our firm power

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customers and others.

When we were formed in 1977 by the Department of Energy Organization Act a lot of the hydroelectric power marketing was done by either the Bureau of Reclamation or, a small amount, by the Corps of Engineers. That was all folded into the Department of Energy, particularly in this part of the world, all the Pick-Sloan hydropower.

We're one of several. Bonneville
Power is in the Pacific Northwest. They have
a lot of water up there -- and rainfall. They
market about three times the power of all of
Western area power. There's Southwestern
Power, out of Tulsa, Oklahoma; Bonneville's
out of Portland; and Southeastern Power in the
southeastern United States.

So there's three power marketing entities. For our programmatic EIS, we're going to be talking about the Upper Great Plains Region. And we'll see more. This is a great place for wind power development. And

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we have three other regional offices that won't be involved in this particular effort.

As I mentioned, we market the power from the federal hydrodams. In the case of the Upper Great Plains Region, it's the main stem core dams on the Missouri River, as well as Canyon Ferry on the upper Missouri and the Yellowtail Dam on the Bighorn.

Western has 17,000 miles of high-voltage transmission line in 15 states, and roughly about 7,000 miles of that is in the Upper Great Plains Region. And we deliver voltage, wholesale power, to people that retail it. And our firm power customers are primarily rural electrics, co-ops, municipalities and other government agencies.

We have today in Western, 671 customers, as I mentioned: cities and towns, rural electrics, irrigation districts, public power districts, federal and state agencies. And we've made allocations to Native American tribes. This was -- Western was permitted to

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do this under an energy policy act to allocate power benefits to tribes. And the preference entities, of course, are identified by definition by the Reclamation Project Act.

little different we're a that we're funded by congressional appropriations, but most definitely the revenue comes from our power customers. And one of our real goals in life is to keep the rates as low as possible, cost-based rates.

What that means is what it costs us to operate and build a system gets included in our rates and we repay the U.S. Treasury for the capital investment they made to build the dams and to build the transmission infrastructure. And to operate and maintain the dams comes out of the hydropower rates.

We voluntarily comply with FERC rulings. Well, voluntarily -- we're actually complying by DOE policy. The Department of Energy says we will comply with the FERC requirements, and specifically this involves

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open-access transmission. And we'll get into that a little more.

What we do. We market the hydropower, transmit it to our power customers.

Out of our Watertown Operation office, we control parts of the energy grid. This is what John talked about. specifically, where we make decisions about regarding who interconnects with Western's part of this energy grid is where we have a decision federal where the National Environmental Policy Act kicks in.

We provide open-access transmission, and we're evolving to meet the changing power generation and transmission environment. One thing that I should say is that we do not currently have load growth responsibility. Our firm power customers have supplemental power, and I see Basin Electric here that provides that generation.

We have a set amount of hydropower

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that varies somewhat on a good water year or bad water year. And that supplemental power is primarily made up of Basin Electric.

And we'll get into the power grid.

As you can see, a power grid starts off at generation, of course. And generation includes wind and then the hydropower and the thermal power, and then it gets into the wholesale and transmission.

This is the grid part operate and maintain That -we section -- not all of it, but a good section of this grid. And it goes to the distribution These are, you know, the co-ops, customers. municipalities and rural electrics, and these are the people that you see your bill from. And then there's end down users here -residential, commercial and industrial.

Western and wind. We've had a number of interconnection requests. And right now, as John Hayse said, we're doing our NEPA obligations one project at a time. And

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there's from independent wind project developers, but other folks -- utilities -- and the requests are being addressed in the order they are received.

Now, one of the things that we have -- and I'll give a website address for this -- is that we have a queue for the open access. People have to submit an interconnection request. And in there, it tells -- it gives the environmental process.

And at our website at wapa.gov, you can go into the transmission part and it gives all the guidance on how you request an interconnection request, and it also gives the guidance on what will happen environmentally. Now, the current situation is a one-by-one type of analysis.

The goals of the wind energy program. We want to streamline the process for these requests. You know, there was a question previously -- we were in Sioux Falls last night -- are we going to stop the one-by-

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one analysis while we complete this programmatic effort? The answer's no. That will still keep going on in parallel, but any information that's developed, of course, or mitigation -- or information will be shared with folks as we complete this process.

Our goal in developing wind is to help protect the natural resources, including those whose mission is covered by Fish & Wildlife that Lloyd will talk about while, and also get the wind energy developed. And we don't think it's pick one, either/or; we think we can do both and do a good job of open-access transmission both. Western's procedures service tariff has also for addressing these wind energy interconnection requests.

Okay. The key objectives. We touched on them briefly. Address the generic concerns of wind energy, to develop a streamlined approach, and to make it go faster and in reasonable as common sense as possible,

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develop and present mitigation measures.

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And there's а concept called adaptive management here. That means we learn What's not known today? as we go along. types of things can be done that we don't have the problems with interactions with birds or species? Is it siting issues? Is it design and technology issues? You'll hear more about it from Karin. What works, and what doesn't work, and what still gets the job done?

That last thing. Provide guide and for information the interconnection applicants. Our hope is that we will develop enough information through this process to let folks know at least where there may significant areas of concern or other issues, whether they be protected species or a call to resources, to let folks know in advance that this is all the information and you can choose based on this to go down that road.

Okay. Thank you. As I said, we have at wapa.gov information on our

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1 interconnection process. We've also 2 information about Western in particular, a lot of information. So that's а good 3 very website. 4 particular, 5 On NEPA in the President's Council on Environmental Quality 6 7 has a very good website on getting involved in the NEPA process. It's nepa.gov. You can go 8 and Google that, and it gives you a real good 9 guide to getting involved in the 10 citizens' 11 process. going 12 I'm to take couple 13 questions. Keep in mind it's specific to any information about Western right now. Comments 14 15 on scoping, on our approach and the EIS should 16 wait, but any questions or clarifications I'd be glad to answer right now. 17 (Pause.) 18 19 MR. STAS: Well, thank you. Lloyd? 20 MR. JONES: Thank you, Nick. 21 As well, from the Fish & Wildlife 22

Service, we appreciate everybody coming tonight. The Fish & Wildlife Service is a public agency, and we're wanting to review this action we may or may not take. And we can only do it with good input from the public. So we certainly appreciate folks coming to provide that.

And I want to thank Western because they are a very technical-based agency, a federal agency. We're more biological based, but we have a lot of issues to deal with with wind. So it's a unique opportunity for the Fish & Wildlife Service to partner with Western, and we're looking forward to being able to do a more public service kind of review of this whole issue.

I want to introduce a couple folks tonight that are here with Fish & Wildlife Service with the refuge division. First is Mick Erickson. Mick is our project leader down in the southeast.

Raise your hand, Mick.

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(Pause.)

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MR. JONES: Down out of the Kulm Wetland Management District, Mick has worked a lot with wind projects over the last couple of years. In his district, there is a Florida Power & Light project, two of them, I guess. Tetonka project -- that's in his district, as well. So we've worked a lot with those folks.

Ι introduce want to Tammy Fairbanks. Tammy is our state supervisor for & Wildlife the realty program with Fish Service. As you heard John say, part of this deals with whole review process Fish Wildlife Service easements. Tammy's in charge of the division that takes care of acquiring those easements, working with landowners on those.

So with that brief introduction, as Nick did, I'll run through a few slides to, hopefully, give you a better understanding of the Fish & Wildlife Service in relationship to this programmatic EIS. The first thing I need

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to do is tell you about the mission of the Fish & Wildlife Service, and that's just a lot of words.

But the key thing is the bottom of this first paragraph up here where it talks about habitats and wildlife for the benefit of the American people. The specific mission for the National Wildlife Refuge System, which is who I work for, that division -- as well as Tammy and Mick. The mission of the National Wildlife Refuge is to manage the networks of lands. And again, here you see that, at the end: For present and future generations of Americans.

A lot of people feel the Fish & Wildlife Service only cares about wildlife, you know, and we only care about ducks and ducks are more important than people. But our mission is -- specifically, we manage wildlife for people. So I think that's an important clarification to make.

One of the things that -- one of

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the areas of the continent that we look for to carry out that mission is the Prairie Pothole Region. You can see where strategically North Dakota lies within that.

And that's -- why the Fish & Wildlife Service for many, many decades has had a presence in North Dakota is because of the location of the Prairie Pothole Region. It's a very unique region. It's the most productive migratory bird breeding habitat in North America, and it's the relationship of the wetlands and grasslands that makes it so.

It's not just the water; it's the combination of water and grasslands. A lot of the migratory birds that we're responsible for managing actually nest in upper grassland areas, as well as the wetlands. So it's a combination of both, and you're going to hear me refer to them both.

But North Dakota and the Prairie Pothole Region is very unique. Again, it's the most productive area in North America.

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But part of the challenge we face is a lot of the grass in that Prairie Pothole Region has been converted and continues to be converted to crop land. That creates a challenge for us in fulfilling those responsibilities that Congress has provided to us.

The same with wetlands. Over half of the wetlands in North Dakota -- in some parts of the Prairie Pothole Region over 90 percent of the wetlands have been lost. So that in itself creates a challenge for us to look out for the best interests of migratory birds and wildlife when there's been that much pressure on the landscape.

We have a strategy, and that is to protect wetland and grassland habitat in the Prairie Pothole Region, that area that you saw there, sufficient to sustain 93 percent of the breeding population and productivity of water fowl. Somebody may say, Well, why is it 93 percent? Why is it not 100? Why isn't it 90? The reason for this is simply that there are

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some areas of the Prairie Pothole Region that have -- most of the grasslands have been lost.

Most of the wetlands have been drained.

There still might be some habitat there, but there's not enough. We realize it's going to be very difficult to protect that. So when you eliminate those areas, it just comes out statistically to be about 93 percent. But that's the government. You got to be specific, so we didn't round it down to 90.

So what's left to accomplish that?

We need -- we've identified -- we've done a biological analysis of what that's going to take. 1.4 million acres of wetlands and 10.4 million acres of grassland that are remaining out there that we've identified. In order to accomplish that 93 percent, if that -- we're going to be successful, we have to accomplish that additional protection in the United States portion of the Prairie Pothole Region.

So how do we do that? I'm sure a

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lot of you in this room -- if you're from North Dakota, you've heard about the Fish & Wildlife Service's wetland easements. We've acquired easements dating back as far as 1958, and -- but still, some people might not be totally familiar with them.

What do these easements do? They protect wetlands from being drained, burned or filled. However, we don't want to acquire the land; the land stays in private ownership, and they are perpetual easements. And there's a lot of other easements that are similar to the one that Fish & Wildlife Service has that, if the land changes hands, the easement stays on the property and the easement is perpetual.

But this bottom one? All other uses of the wetlands are allowed. In other words, if we're in a dry spell and the wetlands go dry, the landowner can plow them up; he can farm them. A lot of wetlands in North Dakota are hayed. That's perfectly fine under the easement program.

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Again, the wetland easement only the wetland from being drained, protects burned or filled. It's limited а very easement right that's acquired from the always from willing landowner, landowners interested in selling and protecting the wetlands on their property.

The other part of that program I mentioned is the grassland aspect of it. Almost identical, it protects grasslands from being converted to other uses. That's all it is. The landowner can graze those grassland areas at any time, and the landowner can hay those areas after July 15.

Again, it's a very limited grassland easement. We often refer to it as it's a green-side-up easement. It's just to keep the grass in grass. The land, as with wetlands, stays in private ownership, stays with the land in change of ownership. And again, as I mentioned with the wetlands, all other uses are controlled by the landowner.

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So both the wetland and grassland easements are very limited easement rights.

So what does it look like from above? This would be -- if you took an aerial picture, this would be a good example of both a wetland and a grassland easement. This landowner was interested probably in a ranching situation. All this area up here is grass; all these, wetlands.

In this situation, we would acquire from the landowner both wetland and grassland The wetlands just stay wetlands, easements. and the grass just stays grass. That's basically it. Again, the landowner can use the land as he see always has, and continue into the future.

Okay. So how successful has the program actually been? We can look up here at North Dakota: 912,000 acres of wetland easements, 300,000 of grassland, for a total of about 1.2 million acres. If we look at the area that's included in this review, which is

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North Dakota, South Dakota and Montana, in total, we have about 2.7 million acres of easements that exist out in the landscape. And you're going to see in a second here why that's important.

This is the distribution of those wetland and grassland easements. And you can see up here in North Dakota where most of them are. They're pretty well distributed across the entire state with the exception of the Red River Valley.

And that's -- again, that would be an example of why it's not 93 percent and not 100 percent because there's going to be limited areas over here in potential for wetland or grassland easements. The easements extend out into Montana, but not to the extent that they are here in North Dakota.

Okay. The challenges we face. The wind development has expanded rapidly, and it's difficult. As you saw in the previous slide, there are a lot of easements. It's

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difficult for wind development to totally avoid easements. So we know that's a challenge. We're trying to work with the wind companies and deal with that.

If we look to the future, there's a large overlap between where the key wind areas are in where we are interested in acquiring easements. As you saw, our goal is 10.4 million acres additional, 1.4 million acres additional of wetland. But those are in the same areas where wind wants to expand. It's the -- I think you're going to hear from Karin or maybe Nick. It's the Saudi Arabia of wind. So we realize that; that's a challenge.

How do we work with landowners and the wind to address the interests that they have? One of the things we need to understand is the interaction of wind and wildlife, what impacts there are. How do we deal with that -- best management practices, that kind of thing? And then how do we come up with the right mix of easements, wildlife and wind?

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That's the challenge that we face today.

Just wind that the Fish & Wildlife Service deals with. Our state is divided up into different districts. Mick is in charge of one, but he deals with all kinds of requests. People come in. The rural water district want to bury a water line. They want to have a power line. The county or state wants to do something with a road that affects the wetland or grassland easements.

So there are a lot of requested uses that we deal with. We have a set of criteria; we try to deal with these on a consistent basis. We feel that's very important. And we also have a series of internal policies and issues.

NEPA, which you heard Nick talk about in some detail. There's also the National Historic Preservation Act. And then we have a bunch of internal challenges that we face that -- Congress has told us, Look, if

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you're going to consider something, this is how you have to do it.

point out that want to our general approach with wetland and grassland easements is reasonable accommodation. And again, that could be a road project, could be a buried water line; it could be a landowner that build additional wants to facilities, expand his operation buildings, or whatever. We face a lot of requests. Wind is one of those that we want to try to do a very good job of working with the wind industry and landowners to deal with it in an appropriate manner.

Okay. What's the current status?
Where are we at now? What has the Fish &
Wildlife Service done?

We've authorized three projects, with about 25 towers, on Fish & Wildlife Service easements, one of which I mentioned that Nick has dealt with, the Tetonka project down in southeastern North Dakota.

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Administratively, we've done that with two projects with a right-of-way permit, and one was an exchange. And that's a little bit complicated. I won't go into the details of that.

And we're working now in the region, North and South Dakota and Montana, with about 40 different wind projects. So it's a pretty active area of involvement right now, and we know it's going to continue.

So what are we looking for in terms of this EIS? First, you know, we want to better understand the impacts individually and cumulative impacts -- Nick mentioned that -- trying to look at the whole issue as a whole, rather than do it on an individual basis. It's just much more efficient.

We want to review research, and if there's additional needs, we need to identify those. Nick mentioned also the streamlining and environmental compliance. It's real burdensome for us and wind companies and

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landowners to look at one project and then in the next week do a whole NEPA process and look at another one. So we think that this is going to help us look at it more streamlined.

then provide recommendations And and guidance to wind companies. We've found through our experience working with companies that they're really good to work with; they want to make adjustments, and they want to do what they can to minimize impacts. pleased And we've been real with our relationship with wind companies, and we want to be able to provide them good advice and recommendation. So this process, too, help us do a better job of that.

And I needed a slide to tell me when to stop talking. But as well, as Nick said at the end, if there are any questions about anything that I've presented on these slides, anything with the numbers or the strategies or the plans or whatever, I'd certainly try to answer those. And later on,

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1	there'll be all kinds of opportunity for folks
2	to offer comments.
3	But anybody have any questions?
4	(Pause.)
5	MR. JONES: You're going to let me
6	off easy?
7	Yes, sir.
8	MALE VOICE: As I understand, this
9	applies only to Fish & Wildlife easements; it
10	has nothing to do with Fish & Wildlife to
11	wind projects elsewhere within the region.
12	MR. JONES: Yeah.
13	Did every could you hear his
14	question in the back there? His question
15	I'm sorry, John.
16	MR. HAYSE: If you could, could
17	you
18	MR. JONES: Yeah. I'll just repeat
19	it for this one. And the question
20	And you correct me if I get off
21	base here.
22	The question is, is this process

reviewing just the Fish & Wildlife Service's involvement with wetland and grassland easements, or does it also relate to other Fish & Wildlife Service interests in terms, for example, like endangered species and things like that.

MALE VOICE: I was referring geographically, for instance, on Indian reservations that have no such easements.

MR. JONES: Oh.

MALE VOICE: Is this process irrelevant?

MR. JONES: From a -- I'm going to maybe ask Nick to respond to that. From the Fish & Wildlife Service's part of this programmatic EIS, it would not include Indian reservations or other lands because, as you point out, there are not easements there. I don't want to stop short and leave you with impression that the there may not involvement with the tribes.

MR. STAS: We were looking at, oh,

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1	potential interconnections with our grid. To
2	the extent that we have Western transmission
3	lines across some reservation land, there is a
4	potential for interconnection there that would
5	be looked at. So the part of this is all
6	the potential places for interconnection. And
7	we have a chart outside that shows where this
8	area is, and that's the scope and also,
9	specifically, all of the Fish & Wildlife
10	Service easements.
11	MALE VOICE: Thank you.
12	MR. JONES: We get it?
13	(Pause.)
14	MR. JONES: Anybody else specific
15	to
16	MR. BINA: Yeah. One more.
17	Clarence Bina, Lewis and Clark Wildlife Club.
18	On this very same thing, on
19	exclusive easement properties wetlands,
20	grasslands and native prairies so does that

non-disturbed areas at all in --

1	MR. JONES: Not for the Fish &
2	Wildlife Service. This programmatic is only
3	going to look at the relationship of wind
4	development on wetland and grassland
5	easements. However, there is a connection to
6	those things that you're mentioning because,
7	as you saw in here, our goal is to acquire
8	more wetlands and more easements and protect
9	more wetlands and protect more.
10	So those are not under easement
11	now. But the program interest is to continue
12	to work with landowners to conserve those. So
13	to your question, I think there is going to be
14	some of addressing that need in this
15	programmatic.
16	MR. BINA: So that would be U.S.
17	Fish & Wildlife Service and not WAPA?
18	MR. JONES: Correct. Fair?
19	MR. STAS: Yeah. We don't acquire
20	easements for that.
21	MR. JONES: Anybody?
22	Yes?

1	MALE VOICE: On these easements, on
2	a site-specific basis, what would you do
3	like an environmental assessment or a tiered
4	EIS? What kind of environmental review are
5	you going to do on a site-specific basis?
6	MR. JONES: Project by project,
7	once this is done, we will still do an
8	environmental review, and that may be an EA.
9	It may be a ROD, a Record of Decision, process
10	review. But there will have to be a step-down
11	individual NEPA review to that project; it
12	just won't be a full-blown EIS.
13	I think there was somebody else
14	somewhere.
15	Yes, sir.
16	MALE VOICE: If's there's a request
17	for mitigation in a specific project to
18	follow up on his question before the EIS is
19	completed, how do you envision the impact of
20	the EIS on a site-specific request?
21	MR. JONES: Well, for one thing,

you know, we're dealing with projects now, and

we're dealing with mitigation and replacement acres. And that's not going to stop. We're going to -- as Nick pointed out, for their review, they're not going to stop with their review of interconnections and other things. And we're not going to either.

Like I said, we have 40 projects that in some way, shape or form we're dealing with. We're not going to say, Stop, we've got to wait for two years until this EIS. We're just going to keep going.

I guess, in terms of the future, you know, when this programmatic is done, there's -- because of that exchange, with a reversionary clause, there may be replacement on an individual project basis that we will address with the companies. But we're doing that now. We may potentially continue to do that as a result of the outcome of this review.

As John pointed out, we may also conclude that we're not going to do that. But

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that's part of what we will address. But for now, if that answers your question, we're going to keep going and keep doing these reviews that we're working with the companies now. Nothing's going to stop.

(Pause.)

MR. JONES: Karin?

MS. SINCLAIR: Thank you.

Okay. I was asked to give a presentation on wind technology, so this is going to be a very quick overview of wind technology.

I'm from the National Renewable Energy Laboratory. And this is a photograph of the National Wind Technology Center, which is just south of Boulder, Colorado. And we do research on components, and we'll soon have a couple of state-of-the-art large wind turbines sited here. There we go. Okay.

So, very quickly, the presentation is going to include an overview on the technology itself, the capacity that's been

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installed, what a project configuration might look like, information on transmission and operational considerations, the benefits of wind, and then the environmental issues that we need to consider.

And peppered throughout the presentation are photographs of wind farms that are already installed in this Upper Great Plains Region. So this is the Tetonka project that's been mentioned a couple of times that straddles the South Dakota and North Dakota borders.

So technology has evolved If you look at the far left of this time. diagram here, those are state-of-the-art wind turbines back in the '80s, and they're about 100 kW in size. Today -- in 2007, the average size wind turbine that was installed was 2.2 MW, and what we call the workhorse turbine is about 1.4 MW. So you can see that we're quickly evolving to an even larger turbine.

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On a land-based level, there may be some constraints to the cap of the size of those turbines, although there's still some discussion about maybe being able to get over the transportation issues that we're closely approaching. And then on an offshore basis, there's still some discussion of how large those wind turbines can actually be, but you larger can see that they're than the expectations for land-based turbines today.

And on the bottom of this slide, I've overlapped the history of the research meetings that we've held with regards mostly avian impacts from wind and, recently, some of the bat impacts that have occurred. So you can see that there's been a approach addressing consistent to these issues, and I'll talk about those at the end of the presentation.

So very simply, what is wind energy technology? The wind turns the blades, which spin the shaft that's connected to the

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generator and that makes electricity -- very simply. If you can put a bunch of turbines together, we call that a wind farm or a wind project. And that power is integrated into the transmission system.

This is a prototype for low-wind-speed turbines. You saw the map outside of where the wind resource is in the United States. There's a lot of areas outside of the Upper Great Plains where there isn't a lot of wind.

And so this is the technology that we've been developing to capture wind in those environments, but they'll also work in the higher-wind-speed environments. So you can see the size of this turbine is considerably bigger than some of the early turbines.

So where is the capacity installed? Worldwide, as of January '08, there are about 90,000 MW, and the European community contributed to more than half of that, about 55,000 MW. North America in January '07 had

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about almost 17,000 MW installed. And as of last month, we broke the 20,000 MW threshold.

And the of the world rest contributes about the same as North America. And you can see in the next few years, the European community is still expected to contribute a significant amount of growth in capacity installed from wind.

And if we look again at the maps that are actually out on the wall over there, we can see where the wind resource is in the United States. And the Upper Great Plains is a main player in this arena. This Saudi Arabia of America was already mentioned. That's kind of a phrase that's been thrown around.

if look at where But you the capacity's installed, it's not in this region of the country. So there's a disconnect. mismatch There's а between where the opportunities are to capture this wind and where the wind technology is actually

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And if you look at California, with the exception of offshore, you wouldn't expect them to have much installed. But in fact, they do. And that has to do with policies and other things that happened in early development of the technology. But there's a tremendous opportunity for this region to contribute.

Let me go back just a minute. recently, there's been an analysis done that suggests that we can capture 20 percent -- we can generate 20 percent of our electricity needs from wind by 2030. But in order to do need to really that, we ramp the up contributions across the country. And so the next series of slides shows you how the analysis has played out, where the various contributions will come from.

So this is 2012. And you'll see there's a little bit of offshore, which we don't have right now. The little square in

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the state represents the amount of land that would be necessary to meet those capacity contributions. 2018, we see far more contributions from other states.

And then we start to see some real big contributions from South Dakota and this area of the country, the Upper Great Plains. And then finally, in 2030, this is -- if you'll look at offshore, both on the Atlantic side and Pacific side, we have Great Lakes and also Gulf contributions. All of these areas need to contribute in order for us to meet the goal and the expectations of 20 percent from wind by 2030.

So today, what does a typical wind farm look like -- a wind project? They're really primarily these three-bladed upwind turbines. As I mentioned, last year the average size was 2.2 MW. And it's going to increase probably by the end of '08.

The towers that these turbines are placed on range in size from 80 meters to

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about 150 meters. The layout will be variable; it'll be dependent upon a number of factors, including the wind regime, the land leases that are secured by the developer, and the size of the turbines.

But in general, what we can say is that the turbines will be placed two to three-rotor diameters apart within a row of turbines, and then the rows will be placed about ten-rotor diameters apart. And this is so that there's no turbulence interference between one turbine and another.

And then power generation is a question that comes up frequently. What -- this is also dependent on a number of factors like the capacity factor and the size of the turbines and the average consumption of a household, and the wind regime.

But we could say on average, assuming an average wind speed of Class 3 to 4, which you can see out on the maps if you want to know what that means, and an average

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household consumption of just under 900 kW hours a month, a 1-MW wind turbine will supply enough electricity to support 225 to 300 households.

So what does a developer need to think about? Well, first and foremost, they're interested in making money. So they need to look at, What is the project going to generate in terms of energy output? And the energy output is a function of the wind speed cubed.

So one of the reasons that wind turbines are getting taller and taller is because they need to go up into the higher wind regimes. And one of the reasons there is a lot of development interest in this part of the country is because there's great wind speeds.

But the developer also needs to have access to transmission. If they can't export their product, then there's no reason to build a project. They need to secure some

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entity to sell that output to, and typically it's a power purchase agreement with a utility. They need to line up the landowners that are going to lease them the land for them to put this project on, and then they need to access their permits.

They need to get their permits.

And they need to address both wildlife and community concerns, which sometimes is called "Not In My Back Yard" if it's a negative concern, or whatever issues might be necessary in order to secure those permits.

They need to find the turbines at a competitive price. In the last couple of years, the turbines have been sold out 100 percent. So finding turbines to build a project can be a challenge for developers. And then finally, they're going to need to, of course, line up their financing for the project.

This is a picture of a project in Montana, Judith Gap. I don't know if any of

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you have heard of that, but it's a pretty large project.

So transmission I think we've pretty much covered from WAPA's perspective. They are following the FERC regulations.

Intermittence is а concern that comes up sometimes. In many of the utilities able understand how now they're to integrate wind into their operating systems. And for example, a recent project in Colorado was able to be added to the utilities' service operations without having to add additional backup capacity, which is sometimes what you might hear. Other utilities still working through of some those integration/interconnection issues. And then just a couple operational issues that are sort of in the forefront right now.

Gearbox reliability. Turbines are supposed to last 20 to 30 years. There have been some gearbox issues. There's a collaborative right now that's working to

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address those issues. And there were some early blade failures that had to do with manufacturing -- I don't know -- some early issues with how to manufacture blades. And those have been fairly well resolved.

This is a project from Iowa. And most of the projects that I have pictures of are using this 1.5-MW size turbine.

So benefits. I put a sheet out on the table. When you checked in, you may have taken it. But there's a summary of some of the top ten reasons that wind can benefit. And one of them is that it's economically competitive. It can provide a cash crop for farmers and ranchers, which is a huge plus when you have a depressed economy. It provides direct, indirect and induced benefits to local economies. So it's very beneficial.

They don't use water, which is a constraining resource in some parts of the country. They're national security attributes; because the resource is

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indigenous, we don't have to buy it outside of our borders. And it's renewable, it's inexhaustible, there are no emissions, and the fuel is free. So you are not going to be subjected to the volatility of fossil fuels over time.

And there's а variety of applications which might not all be utilizing these large wind farms. But you can look at remote applications for water pumping. There's community applications, which might just be a single or a few turbines. And a lot of these types of application would interconnected at the distribution site.

And finally, the environmental issues. Typically what we talk about are acoustics, aesthetics and wildlife. From the perspective of acoustics issues, the Europeans have really worked to address this, because their projects are close to where the people live.

So there have been international

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standards that have been developed to push the manufacturers to design their turbines so that they are less noisy. And because it's a global market, their turbines are sold into our market. So it really is not an issue.

The aesthetics is more of a "beauty is in the eye of the beholder" kind of perspective. If you don't like it, you know, you don't like it. If you're not averse to it, it may look like sculpture to you.

And we've had some property-value analyses that have been done since some people suggested early on that wind farms might decrease their property values. And in fact, that hasn't been the case. And it's actually contributed to other positive benefits, like bringing in tourism.

And then on the wildlife issue, birds, bats and habitat. The bird impact issue started with some of the early developments in California, and it was really focused on raptors. And a lot of work has

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been done in the ten-plus years since those early projects were built, and we now have a very good understanding of how to assess sites before they're built and come up with -- and we have strategies to avoid, minimize and mitigate for bird-related impacts.

There's а tremendous amount of out there. resources There's а lot peer-reviewed research, research, now helps us understand what needs to be done. And so it's up to the developers to use that information and then micro-site within context of their development where they put the wind turbines to minimize the impacts to birds.

Bats is a newer issue that came up in the 2003-2004 time frame, with impacts in West Virginia and Pennsylvania, in a forested environment. And initially, we thought that it was kind of a localized issue; we've now found that some bats are having problems in at least one or more sites in Canada and also in

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So as a result of some of the early work that was done on the birds issue, the stakeholders very quickly got together to form a collaborative to do some aggressive research to understand why bats are having problems with wind turbines in some localized areas and then, what can we do to reduce those impacts and come up with strategies to keep bats away. So we have deterrent studies that are going on, and other things.

And then the last wildlife issue is a habitat issue. This is more of a proactive research area to try to understand whether wind farms might impact certain species, for example, lesser and greater prairie chicken in tall grass prairie lands, from a demographic or a genetic dispersal perspective. So we're doing а very extensive study to try to understand what those impacts might be before wind is really deployed in those environments.

And then the last thing that I

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would say is that we have a really significant stakeholder involvement now in this wildlife issue. Ιt involves federal states, government, non-government organizations like Audubon the Nature Conservancy, Society, Sierra Club. And they're all working together to try to come to solutions.

So there are a number of resources that are out there that we've put out as a result of all this research that's been going The first one on the left address metrics on. and methods for looking at diurnal daytime species. And the document on the far right is a recent publication to address, to explain the tools that are available and strategies looking at nocturnal species, not only bats but nighttime birds. And then there's also а permitting document that is useful, has a lot of information.

So that's all I have tonight, and I was just wondering if anybody had any questions on what I presented. Okay.

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MR. BINA: Two things -- one positive, and then one recommendation. Thank you for using the word "farm" and "wind farm."

We understand a power plant is a power plant;

a dam is a dam. Wind energy development -- I

mean I don't know what that -- thanks for using the word "farm." Thank you very much.

Regarding your graphic of the maps with the land use, that was not helpful. And it's just like oil companies producing the same kind of map about the impacts of oil drilling on Anwar. I mean, it -- just very specific dimensions of a drilling platform, when everybody knows the impact goes way beyond that.

So I think it would be helpful to us to see actual aerial shots of wind farm territory in Barnes County, Stutsman County, Ransom County -- I don't care where, you know, Burleigh County. That would be much more realistic and helpful for me as a consumer of this information. Thank you.

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1	MS. SINCLAIR: Okay.
2	Yes, sir?
3	MALE VOICE: I have a question.
4	You talked about a 1.5 MW turbine. Is that a
5	specific wind speed, or is it just when the
6	blades are turning?
7	MS. SINCLAIR: No, it varies.
8	It'll be the turbines can be deployed in
9	various wind regimes, so you could have
10	it's just the capacity of the it's the
11	average capacity of the turbines that are
12	being designed well, that were being
13	designed. Now, they're getting a little bit
14	larger.
15	Does that answer your question?
16	MALE VOICE: No. I wondered
17	where
18	MR. HAYSE: Ed's got an answer for
19	him.
20	MR. WEBER: I can answer that.
21	MR. HAYSE: Before you do, could we
22	please repeat the question, or have you come

forward to a microphone because we're trying to capture all the questions that are asked. And if we can't hear it well enough, then we can't get it recorded into the transcripts.

MR. WEBER: My name's Ed Weber. I'm transmission planning manager. I work for Western Area Power. The question was is the 1.5 MW turbine, is that the output of the turbine when the wind -- when it first starts turning.

MS. SINCLAIR: No.

MR. WEBER: The answer's no. The wind -- the 1.5s, they typically don't start turning until the wind speed reaches a certain amount, and that's usually around ten to 12, 13 miles per hour. The new low-speed ones now are going to start at about six or seven miles per hour, and that's the real benefit. But even at those low speeds at, say, 13 miles per hour, as Karin said, the capacity or the energy output ramps up as a cube of the wind speed.

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So if you're just at ten miles per
hour, you're only going to get a third of the
output of the generator, for example. But as
the wind speed doubles or triples, it doesn't
take very long for you to get up to the
maximum of 1.5 MW. And that typically happens
around 16 to 20 miles per hour. It depends on
the manufacturer and depends on their gearbox.
But that's kind of a rule of thumb is if
you've got 20 mile-per-hour wind you're going
to get full output at your wind plant.
MS. SINCLAIR: Go ahead.
MR. TOMAC: Thank you. I noticed,
Karin can you back up one slide, or two?
MS. SINCLAIR: (Complying.)
MR. TOMAC: Yes, right there.
Actually, that one there. And what I've
noticed that none of the three speakers
addressed the whooping crane, which is

like to hear your comments on that because of

obviously a big issue in this part of the

country. And I'm, I guess, concerned.

I'd

the whooping crane corridor and how that impacts that.

I mean, I understand your organization is doing bat studies. Are you doing anything around the whooping crane habitat?

And for, Lloyd, if you would comment, too, on the comment -- on the question that was asked previously. It was almost like it was the EIS is limited to grasslands and wetlands. And it really isn't; it's much broader than that. And so if either of the other of you two would want to comment on that, I'd appreciate that.

MS. SINCLAIR: I can comment on the first one, which has to do with the whooping crane. Are we doing any study in that area? To my knowledge, we are not at this point. We have a pretty extensive list of near-term research priorities, but we're always willing to modify those projects if there's something that we feel is more important. And if there

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are regional-related issues that we can help with, we would be willing to entertain those.

MR. STAS: In some of our one-byone projects we have gotten into formal consultation on the whooping crane with the U.S. Fish & Wildlife Service. We have had meetings with Henry Maddox, director ecological services, supervises the states up here, the Dakotas, Montana. And we will be working on this issue on the programmatic basis, trying to find the best possible way to protect the whooping crane.

We don't want any takes on those; there's not a lot of them, couple hundred of them -- and also move forward with wind development. And I'll let my colleague Lloyd say anything more about that.

MR. JONES: We'll be needing to looking at the whooping crane issue in regards to what we're evaluating in terms of allowing wind on wet or grass easements. That will be one of all the things that we'll have to look

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at and evaluate. And we'll be doing a formal, internal review on that whooping crane, but to your comment, Steve, about the sideboard, so to speak, about this EIS -- this is not a comprehensive wildlife review of wind on the prairies. It is not that.

Wildlife From the Fish & EIS, this perspective, on it is simply limited, restricted, sideboarded to the wetland and grassland easement program of the Fish & Wildlife Service. There are bigger, broader that deal with issues endangered species, whooping cranes, other migratory birds, all kinds of other things, but we are going to be -- now, from WAPA's standpoint, Nick just mentioned, he is -- that part of the process will be reviewing impacts EIS to migratory birds and endangered species But I want to point out that for the well. Fish & Wildlife Service, we're just looking at the wetland easement component.

MR. TOMAC: So my follow-up

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question to that then, Lloyd, is does that mean that we will have to do a separate EIS for the whooping crane because it's not included in this programmatic?

Again, if a MR. JONES: Yes. project is built on the landscape, example, that does not include a Fish Wildlife Service easement, and there federal nexus through working with WAPA or receiving federal funding or whatever, yes, there would have to be a formal review of that endangered species potentially issue necessarily, environmental -not but potentially an environmental impact statement done.

This process won't deal with that because easements are not involved. Now, if easements are involved, then this will help then because we will be reviewing all of the issues associated with those easements.

Does that help?

MR. STAS: Let me say something

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about that also. One of the goals is to try, to the extent we can, let folks know where this is going to be a significant issue. Lloyd mentioned an EIS. In other words, if we can identify where the whooping crane is going to be a significant issue ahead of time, that will help the people that are planning.

And to the extent we can, that's our goal to do that, so we don't have to do -but if somebody goes there and said, Okay,
this -- you're here; that's significant, they
can go forward, but then they have to know
that they're going to hook into a federal
nexus. There's going to be environmental
impact statement because impacts are
significant to the whooping crane.

But what we'd like to do is try to identify and say, Okay, these are areas that we know, to the extent we can, based on current studies' information to let folks know that this is likely to generate a significant issue with endangered species, not just the

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whooping crane but any others that we may have to deal with. But that's the big one for the wind programs.

MS. SINCLAIR: One more question.

MR. IRON EYES: Hello. Thank you guys for coming. My name is Chase Iron Eyes.

I'm from Standing Rock. I had a couple of questions. One is the 20 percent by 2030, what is the source of that figure. Is that a policy statement or wishful thinking or executive order or something like that?

A second question had to do with transmission capacity. What is WAPA's transmission capacity maybe in terms of either gigawatts or megawatts or something like that, and is there plans to increase that capacity?

MS. SINCLAIR: All right. For the 2030, 20 percent by there the was President's State of the Union address suggested that it was a potential, you know, that he really thought that that was something that could happen. And so as a result of that

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there was an analysis done.

I'm not really sure if I have the web page, but I can get that for you for the report which was an extensive 18-months' study that looked at all of the potential issues that might have to be resolved in order for that to occur, for those goals to be met. And so that report was published in July, I believe, of this year, so it's available and I can get you that source.

And then, I'll let you --

MR. STAS: I'm going to defer back to Ed Weber again on what's available, and keep in mind the website I refer to talks about the interconnection process in the queue and so it's first in time on the studies. And each one can subsequently affect what's available as these are going on.

And I'll let Ed take it from there.

MR. WEBER: Well, thanks, Nick, I
think.

That's a difficult question because

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every transmission facility that Western has had a different rating, a capacity factor if you will. Right now in -- our transmission system that interconnects with the rest of the grid, we here in North Dakota are net exporters of energy and so we're currently exporting out of the state to load centers throughout the Upper Midwest.

That capacity is right about 2,000 And interestingly, it's not the sum total all different lines of of the that interconnect; what limits the system is the system itself. It's what we call system stability or transient stability and that is the ability of the generators to synchronized with the rest of the grid at a transfer level during major disturbances.

So like if we've got a high-export condition and we lose one of our big 345kV lines, the one coming right out across the river right north of town here. That's a major disturbance; we would probably trip

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generation, and we don't necessarily want to do that. That's a bad thing to happen. So when the system is stable all of the units stay synchronized and stay connected when you lose that big line -- okay?

So that sets the limit of what you can transfer. Now, at any given location, depending on where you're at, if you have a small line you can maybe add 10 MW; if you have a bigger line you could add 50; if you have a 345 line you could probably add several hundred MW.

But the question is, is the system capable of delivering it across the border or delivering it out of the state to the market where you want to get it to? So we have not ever done a calculation to say exactly what each of our transmission lines is capable of carrying. I can tell you what the design limit is but that really doesn't answer the question of what the system can withstand.

MR. IRON EYES: Is the 2000 MW

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ballpark figure, is that for total transmission or is that transmission -- 2000 MW more, whatever we're at.

MR. WEBER: No. That is the total export capability of the North Dakota system right now. That consists of 17 lines. It's made up of nine 115s, eight 230s and three 345s, if I did my math right. I don't know if I did or not, but -- so the answer is that is the total export capability right now.

And if you look at the generation in North Dakota right now, we've got about 4,500 MW of generation. And different times of the year, we're going to try to sell that because that's baseload cold units; you have to keep them running at a certain level to keep them efficient.

So as we add more high-voltage transmission lines out of the state we'll be able to add more generation in-state. So that's one of the keys. When we're -- when Karin was saying that transmission is the key

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for development of wind, she's absolutely correct. We're going to need to add more transmission to develop more wind.

MR. HAYSE: Okay. What I'd like to do now is actually move out from what I had hoped would be primarily just sort of question period related to the particular presentations that were made and move into into formal public what our scoping comments phase. Now, keep in mind that all of the questions that have been asked, if there associated with that, comment information will get captured and will be considered in our scoping process.

So let's just review real quickly how members of the public, members of various nongovernmental organizations, members of tribes, can provide scoping comments. First off, at the scoping meeting. That's a very simple way to provide comments, and we'll get into some details of how to do that in just a moment.

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Second, via the project website and the URL for that is given on the screen there. And basically, if you go to the website there is a very simple way to get to a place on the website where you can type in a comment, provide some information related to who's making the comment, and that will get captured and considered in our scoping process.

Third, you can provide comments via regular mail. We provided scoping comment forms at the registration desk when you came in. If you would like to write comments on that form -- it's designed so that you can fold it up -- the address is on the outside of that. Once you do that you can put a stamp on it, mail it to us, and then we will consider those comments.

If you decide to send those comments via mail, you know, by handwriting them on a different piece of paper or something -- as long as they're addressed to the address that's available either on the

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website or on that form, we will be happy to receive those comments from you and consider those during our scoping process.

regardless of which Now, way they will all be comments come to us considered equal. Okay? Please note though that right now the plan is that scoping comments will be accepted through November 10 And the reason we have to have more of 2008. or less a cut-off date for scoping comments is because need to take those we comments, kind of things evaluate what need we include in our analyses, either based upon the requirements of NEPA or based upon what those comments are and tell us about what people are most concerned about.

So we've got a lot of analysis to do and we need to get that going. So scoping comments, we're expecting that those will be received by November 10.

For more information about the project you can visit that project website or

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-- and this information is also provided on the website -- you could directly contact one of the federal agency representatives for this programmatic environmental impact statement. That would either be Nick Stas if you're interested in contacting Western Area Power administration or Michael Spratt from the U.S. Fish and Wildlife Service if you're interested in gathering more information about the EIS process or providing your concerns directly to those individuals or agencies.

So as far as providing oral comments tonight, as people registered at the desk, they were asked whether they interested speaking providing in or oral comments tonight or not. Now, if you signed you were interested in providing up that comments, we made a note of that. And I have a list of those and we will call those people up in the order in which they registered to speak.

Now, if you decided that you did

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not want to speak but you've changed your mind at this point and you would like to provide a comment at the meeting, we will be happy to accept those comments. So once the people that registered to speak have been called up, then I will open it up to the audience and basically, in the order that I see hands or whatever come up, we will invite you to the microphone to provide those oral comments.

You should keep in mind that we are making a recording. We're basically recording the comments that we receive tonight so that we can prepare an accurate transcript of those comments; we can capture the comments just as they were made so that we can consider them fully when we decide what we're going to evaluate further in the environmental impact statement.

Now, for making an oral comment tonight, you will be invited to come up to the microphone or we can pass the microphone to you if we need to do that. I would like you

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to state your name and your affiliation, if there is one -- if you're here representing an organization of some type. Keep your comments as brief as you can, please, and that's so we can allow time for everybody to make comments here tonight.

We would appreciate it if you could limit the comments to the scope of programmatic EIS. And just to review for you then, that means that we're looking at wind energy development, or the potential impacts of wind energy development, as it relates to developing a program for Western to look at interconnections that will those occur to their transmission grid or for the Fish and Wildlife Service to evaluate requests to develop wind energy projects that will affect Fish and Wildlife Service wetland or U.S. grassland easements. Okay?

All right. If you have written comments -- written copies of your remarks that you would like to leave with us, please

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provide those to me or to one of the other staff members who has one of the programmatic EIS badges, and we will be happy to take that. And the transcript that is going to be prepared from these scoping comments will be posted on the public website, so please keep that in mind as you make your comments as well.

And I think that's the last slide, so find the list here -- okay.

So the first speaker that, or the first commenter that requested to speak is Steve Tomac. So if you would please remember to state your name and your affiliation. Thank you.

MR. TOMAC: Sure. Thank you.

For the record, my name is Steve Tomac. I work for Basin Electric. I also ranch about 30 miles southwest of here, so I have a farming and ranching interest. Just for the record, too, you know I'm not sure that everybody here understands the

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significance that Basin Electric has within the region. We are a power generator and transmitter of electrical power.

We serve nine states. We are actually owned by 126 rural electric cooperatives in those nine states and we serve 2.6 million people. Most of those are farmers and ranchers within those nine states, just so you have a flavor of really what we do.

Up to this point, because we're a really cooperative, haven't had the we opportunity to develop our own wind farms, largely because the production tax credits focused have been at those for-profit companies that can develop that and use a PTC or production tax credit. We have, believe, found a way to utilize that and so we are now in the process of developing a wind farm in North Dakota in the Minot area and one in South Dakota of an efficient size. Αt least we hope it is.

Up to this point we have bought

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most of our energy from wind farms from FPL because they could utilize the production tax credits and we couldn't. And so with that understanding we do have some concerns about that.

But first of all, I'd like to compliment both WAPA and the U.S. Fish and Wildlife Service for holding these We think that if done programmatic hearings. properly and correctly, we think this could be really beneficial to all; it could speed the process and it could move the process along. Because we at Basin, as the rest of the United States, are in a -- starting to see that we're going to run out of electrical generation in the near future.

And within Basis alone we estimate that the increase for energy in the next ten years is going to increase by 2,000 MW. And that's a pretty significant load to carry and to build and develop. Wind energy is a critical part of that. And so what we do

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here, and whether or not we can develop wind or can't, or what circumstances, how we develop wind is very important to Basin Electric.

I would say, with respect to the scoping hearings -- so I guess my point is here we will need additional energy in the very near future and wind is an important part of that, partially because of the standard that our own members have imposed upon us.

Our members, the 126 rural electric cooperatives in those nine states, have told us, We want you to generate 10 percent of your portfolio -- 10 percent of your portfolio should be renewable energy by '10, 2010. So we have a 10 by 10. And that's a self-imposed standard.

But we also have standards, different and varying standards, within the nine states that we serve. Some are mandatory and some are voluntary but they range from 15 by 2015 to 20 by '20 and some are mandatory

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and some are voluntary, so there's an additional motivation and requirement, if you will, to develop wind energy. So that's why this is important and I really applaud both WAPA and the U.S. Fish and Wildlife for trying to find a programmatic way of approaching this.

Having said that, specifically on locations I think there are a couple points that we hope that will be considered when we talk about locations. And while I understand that we're not talking about the specific tower locations, but in general we all have to recognize that there are three locations for citing of any wind farm.

One of those is it's got to be in a location where the wind resource is good. And specifically to the gentleman's question a little bit earlier about specific citing of wind towers, we understand that there will have to be a specific EA for those cites, but the value of the wind resource is virtually

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dependent upon the location of that wind tower.

Whether or not you move that a quarter mile or a mile this way or that way could affect the economics of that particular wind tower. And so the wind resource -- the location for the wind resource is very important.

Number two, the transmission location. Obviously, and while I'm not sure it was mentioned specifically tonight, we're aware that there's some issues with migratory birds and power lines. And so the fewer transmission lines that we have to rebuild or build the better off and more economical that it becomes.

important So it's very and imperative that we're able to locate farms close to transmission lines It really makes no sense to locate possible. a wind farm outside of area with good an transmission because you have build to

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transmission back to the transmission line anyway. And so it just makes a lot of sense to us to try and put the wind farms near the transmission line because you don't create another hazard of a transmission line.

And number three, of course, is the markets which isn't as big of an issue to Basin Electric because we are member-owned, a cooperative, and so we're only developing wind to serve our own members. We have, in effect, in a joint partnership with WAPA, our own transmission for the most part. So I would start with those comments.

Number two, I think, and this speaks more to the scoping hearing and probably the input that you want, it's very important that the programmatic EIS doesn't become so burdensome that it discourages those that trip the trigger, the federal connection trigger that Basin trips, and triggers a NEPA process from doing the wind projects.

What I'm saying is Basin Electric,

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through a federal connection, and through our application for funding through our U.S., is now required to do a formal EIS because of the cooperating agencies with Fish and Wildlife. So we have to do that and so let's not make the standards for this programmatic EIS so high that those of us that have to go through that process, it becomes so burdensome that we don't do it.

On the other hand, if you're a private developer and you're not seeking federal funding -- federal financing, you don't have to go through this EIS process unless you're doing an interconnect with that and then it's only -- if I understand the process right, it's only to the point of the interconnection that you have to make.

For example, the power line and wind farm in the Wilton area was developed by FPL and it's my understanding that the only EIS or EA that they probably had to consider was the transmission line from the wind farm

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to the connection. And it wasn't even -- if I'm incorrect in that, I hope you'll correct me on that.

MR. STAS: Yes, there was an EA done that considered the whole project and the interconnection. There was an environmental assessment done and a consultation with Fish and Wildlife on that project, on the Wilton project.

MR. TOMAC: Thank you. I guess, having understood that a little better now, I would only offer this one final point, and that is, if I understand the whooping crane issue a little bit better now, and this does not specifically cover that, I would encourage the scope of this study to include as much as we could, the endangered species in the area because the more we can get out on the table on this I think the farther ahead we all are going to be.

If we can get this out in public and talk about it so we can identify those

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areas that cannot be developed or that are critical habitat or that are nesting areas — the sooner we can come to that realization and that agreement and that understanding of what is totally off limits, the better off we are.

And so while I understand -- if I understand Mr. Jones correctly a specific EIS is going to have to be performed if we trip that, I would hope that maybe we could expand this programmatic to include enough of that, as much of that as we possibly could so that we could all be on notice as to what's permittable and what isn't.

MR. STAS: Just a little bit of a clarification. The EIS is required when the impacts are significant. Okay? And we know our program, the impacts are significant. As John Hayse said, the goal is to tier with an EA where you find that whatever siting issues are non-significant. It's a much shorter process but you're dealing with very sitespecific issues at that point, maybe minor

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location move or if there's a historical site or something.

But if there's a take of endangered just species, the way NEPA's set up, automatically that kicks that into the significance. So, you know, Fish and Wildlife tells us that, Okay, this project is going to -- is in danger or gives us an opinion, then that's what kicks it.

And I assume that's what you meant, Lloyd, about having to do the EIS. You know, you get into significance; that's a part of the definition of you know you're going to take some whooping cranes. Well, that's significant, you know.

So -- but I think that in my opinion it's reasonable to say that this can be done and still not have take on the whooping crane as long as we use the best information, do the best work with Fish and Wildlife. They've actually put together some guidelines already on what could be done on

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development where there's no federal connection.

There's a group that's put together some mitigation and some other things for even entities that aren't even dealing with RUS or WAPA. But our obligations to consult under Section 7 give us an additional burden being a federal agency. So I hope that clarifies it.

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The EIS impacts are significant; we know that it's programmatic, that everything's significant. hope deal with We to significance issues, the cumulative effects everything, the maximum and to extent practical can with this. And we then streamline it and go smoother as we get to the site-specific projects.

And that's an ideal, I know, but as we get more information we can do a better job. And hopefully we'll develop, through the help of Argonne and National Renewable Energy, resources like the tier documents from this

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1 programmatic. 2 MR. TOMAC: Thank you. MR. HAYSE: The next person signed 3 up to comment is Delwyn Groninger. 4 Τf mispronounce your 5 Ι Ι name apologize ahead of time. 6 MR. GRONINGER: You did a good job. 7 My name is Delwyn Groninger. 8 an administrator at a school that potentially 9 10 is impacted by a proposed wind farm. Prior to coming tonight I did draft a transcript that 11 I'm going to hand in, so bear with me in that 12 13 I've actually learned some new information on some of the things that the speakers spoke 14 15 about. 16 "To whom it may concern: I am writing in support of the planned wind tower 17 farm to be located approximately 18 18 19 south of Minot, North Dakota. I represent the South Prairie School District Number 70 where 20

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the proposed wind towers

some of

located.

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will be

Our board of directors, staff and students have applauded the creation of electricity by means of wind energy.

"The environment where the proposed wind tower farm is to be located should be impacted very little in terms of wildlife and depletion of natural resources. The towers located, I understand, will be away and aquatic habitats in refuges the With the technological advancements of wind turbines, the speed at which the blades turn are favorable to keeping to a minimum the amount of danger to any flying birds. includes whooping cranes that may choose to fly over this area.

"And looking at the impact this wind farm may have on the education of the children of South Prairie in terms of generating dollars for our district, it looks to be a resources that the district could very well use. It will help us create an efficient school facility by using energy dollars we

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will likely receive that ultimately helps the district keep property taxes from increasing.

"Because our school supports this wind energy development and sees very little chance of danger to migratory birds like the whooping crane, we ask that a programmatic environmental impact statement be one that moves forward very quickly.

Electric "Basin has with met property owners and has many groups behind farm. This is their proposed wind tower because Basin is a good partner in our area. Every fall we send out fifth and sixth graders habitat for eco-education to an area activities and this wind energy project in our parallels what conservationists and area wildlife officials teach our students about becoming good stewards of the land."

And that is my statement.

I also brought with me a couple other statements. The next one I'm going to read is from a farmer that's currently in a

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combine. I think he read the forecast knowing that it may rain on Sunday. His name is Larry Erickson. He lives west of our school district.

"My name is Larry Erickson. I live on the same farm where I was born 78 years The home quarter land description is Section 21-153-83 of Freedom Township in Ward County. I appreciate and have protected wildlife my whole life. In all these years I have never seen a whooping crane in this area, would although Ι love to have that opportunity.

"I do feel it is ludicrous for any group to inhibit wind energy advancement using possible whooping crane sightings as a reason.

We put up hay on 40 acres where the 1000-foot KXMC transmission tower is located. Only on a rare occasion have I come across a duck that has collided with one of the guy wires.

"I know there is technology that exists that can put out warnings to large

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whooping crane flights. My greater concern, more than that most rare incidents of whooping crane collision with a tower, is for the survival of the ducks and geese in our Pothole country because of the drainage that's going on.

"Thank you for this opportunity to express my opinion on this subject."

And if I may, I have one more letter that was given to me. This is from another member of our community. Her name is Marla Gasman.

"To whom it may concern: This letter is in support of the wind towers currently in consideration to be constructed in the Gasman Township south of Minot, North Dakota. As a board member of South Prairie School I fully support this project due to the financial benefits it will create for the school.

"This is a small but growing school district on the south edge of Minot. Due to

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the continued growth into our district our patrons have recently voted to allow the district to do much-needed expansion of our current school building to include four new classrooms and a new gymnasium. The monies brought into the district from the wind towers would go a long way in helping to fund this \$3-1/2 million project.

"I also support the wind tower project as a landowner in the Gasman Township. My family owns a small farm and ranch just south of Highway 23. At this time the project includes at least two towers to be erected on our property. Due to the high cost of farming we are always looking for ways to diversify to be able to maintain the income that comes in from our business. The money that would be added to our annual income from these wind towers would go a long way in helping to support the small family farm.

"Lastly, I support the wind tower project as an environmentally conscious

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1	citizen of the United States. North Dakota
2	has the perfect environment for creating wind
3	energy. Our legislators' support of this type
4	of project is just common sense. Not only do
5	these projects create clean energy but they
6	also bring high-paying jobs to our great
7	state. I would hope that the approval of this
8	project would move quickly through our
9	legislature."
10	If there's any questions I'll
11	answer them, but I would like to submit these.
12	MR. HAYSE: Thank you. Our next
13	commenter is Bruce Carlson.
14	If you'll give me just a moment
15	MR. CARLSON: Well, good evening.
16	My name is Bruce Carlson. I manage Verendrye
17	Electric Cooperative in Velva, North Dakota.
18	We serve 11,400 metering points in an eight-
19	county area around Minot.
20	Verendrye Electric is writing in
21	favor of continued new wind electrical
22	generation in the central portion of North

Dakota. The cooperative's been doing wind monitoring along the Missouri escarpment stretching from Berthold to Butte since the late 1970s and early 1980s. We have a proven, excellent wind resource in our service area.

The joint Department of Energy program included monitors originally located at the old U.S. Air Force radar base site and also the Prophet Mountain location. With all this effort and dream of wind generation it just doesn't seem right that we would not be develop it at this able to time due wildlife concerns. We are not aware of any bird problems with existing wind machines or transmission lines in our service are.

As cooperatives struggle to meet new electrical generation needs due to ever increasing member electrical growth it's obvious to us that wind energy must be part of the solution. With all the worry about carbon dioxide and climate change, we are uncertain about the future of coal-fired electrical

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generation. And I don't know of anybody that's in favor of more nuclear generation, which leaves wind generation as a critical part of our energy future, utilizing a clean, renewable source.

Verendrye is in favor of а comprehensive regionwide environmental program for wind energy projects that would help move forward quickly and more efficiently. opposed to any restrictive regulations that can delay or end wind energy development in There has to be a way for a this region. continued development of wind generation to be allowed working in harmony with the U.S. Fish and Wildlife while still keeping the cost of electricity affordable.

Area farms are very interested in wind energy as a cash crop with thousands of acres of land already leased out in our service area. Our local communities and economical development corporations are very excited about the prospects of new jobs and

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1	new prosperity. Area schools and political
2	subdivisions are very excited about the
3	possibility of new tax revenue and we
4	sincerely request your cooperation in moving
5	this wind projects forward.
6	And I also just will offer a number
7	of letters of support and they can be entered
8	into the transcript, I'd hope, at a later
9	time: from the Minot Area Chamber of
10	Commerce, a letter of support of wind
11	generation, the Velva Community Development
12	Corporation, McHenry County Jobs Development
13	Authority, the City of Velva, the City of
14	Minot, the Minot Area Development Corporation
15	and also from Farm Credit Services of North
16	Dakota.
17	I thank you very much for your
18	time, and let's move the project forward.
19	BY MR. HAYSE: Thank you. Our next
20	commenter is Michael Smith.
21	MR. SMITH: I'm Michael Smith. I

farm south of Minot and I can guarantee the

wind always blows there when I want to spray my crop.

(Laughter.)

MR. SMITH: And I am one of those farmers that should be home on the combine; we started on soybeans. But I feel it's important to give my input.

I have seen the benefits of wind energy development with the construction of the first two wind towers south of Minot by Basin Electric and Verendrye Electric. I was clerk treasurer of Freedom Township where the two wind towers are located. During the tax years of 2004 through 2007 the towers have been in our township. We have received over \$73,500 in tax revenue from this source of energy. These funds have been put to work improving our township roads.

My involvement as a past board member of the rural fire district, I have seen the benefits of the added tax revenue in purchasing much-needed fire equipment. As a

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patron of South Prairie School I am excited to see the impact that the wind towers have on revitalization of the school district through the tax revenue from wind energy.

farmer, landowner As and grandparent of children that will be attending South Prairie School I have seen the economic benefits of these two existing wind towers and look forward to the proposed wind farm south Having farmed all of Minot. mУ life, an alternative source of support wind as energy to lessen our dependence on foreign oil. Continued development of wind generation in this region will make our nation one step closer to achieving our goal of clean energy.

Thank you.

MR. HAYSE: Thank you. Our next commenter is Peter Karlsson.

MR. KARLSSON: Good evening. My name is Pete Karlsson. I work for National Wind. We're a community-based energy developer based in Minneapolis. I work as a

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land agent for National Wind and have been focused on a project called Dakota Wind which is on the plateau in northeastern South Dakota -- Marshall, Roberts and Day County.

Our business model has landowners
-- local landowners investing in our project,
and we also give landowners who sign their
wind rights with us a chance to use that money
to buy units of ownership in the local L.L.C.
that is Dakota Wind Energy in South Dakota.
So we have heavy landowner investment in our
project, both financially and with their land
rights or wind rights.

And many of those -- a large majority of those have chosen to invest in the project that they are hoping to see wind towers operating on their land. To date we have about 57,000 acres in this signed up and under site control in this project. We're hoping to have at least 64,000 which we're close to and as much as 75,000 acres in route to housing a 750 MW project in that area.

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National Wind has other projects in the Dakotas; this is the one I'm most familiar with and most comfortable talking to We seek to be cooperative. We know important work; that you have you have missions to carry out. We have mutual goals, believe, in trying to accomplish both development of wind energy and protecting habitats.

So when I see -- I guess a concern that arose when I began looking at the data, the drawings and such that were prepared for this scoping meeting, the whooping crane flyway caused me to be a little concerned about how vague that flyway was. I'm hoping that that is an issue that can be overcome quickly if we can be determined to be outside that flyway.

We have, in that 57,000 acres -- a second point, a number of wetland and grassland easements that were in place at the time we signed those acres so we knew that we

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1	needed to work in Fish and Wildlife on
2	whatever mitigation strategies were necessary
3	and we're willing and eager to do that. So I
4	guess I'm here to say we look forward to
5	getting our project done, recognizing the
6	duties that the lead agencies have, and to
7	meet our mutual goals.
8	Thank you. And we will submit
9	something online as well.
10	MR. HAYSE: Okay. Thank you.
11	Our final registered commenter is
12	Kaya Tarham.
13	(No audible response.)
14	MR. HAYSE: Okay. No comment.
15	At this time I'd like to open the
16	floor to anyone else who wishes to provide a
17	comment as part of the scoping process. If
18	you would raise your hand and please come to
19	the microphone just at the other speakers
20	have.
21	Yes, sir?
22	MR. MURPHY: My name is Dennis

1	Murphy. I'm kind of a purveyor of crackpot
2	ideas at times, but I have a suggestion that
3	if you do increase the transmission line
4	capacity that, rather than buy additional
5	right of way, you upgrade the towers to carry
6	more wire so that you can do their job.
7	And I have a comment for the farmer
8	from or the school person from South
9	Prairie. The reason the farmer's out in the
10	combine is Sunday night they might have four
11	feet of snow.
12	(Laughter.)
13	MR. HAYSE: Thank you. Anyone
14	else?
15	Going once. Going twice. All
16	right. Thank you.
17	With that before everybody
18	departs, I'd like to thank everyone for
19	attending our public scoping meeting tonight.
20	Your comments are very valuable to us.
21	Please remember that even if you made an oral
22	comment tonight you are still welcome to

submit additional written comments via any of the various mechanisms that I spoke about earlier. And I will give an opportunity to the representatives from Western and U.S. Fish and Wildlife Service to provide a few additional remarks.

MR. STAS: Just a couple quick One thing I wanted to say was that remarks: we have a study that was directed by Congress called the Hydropower Wind Integration Study. That will be coming out within a month and will probably sooner than that. Ιt announced and publicized and that information will then be incorporated in our analysis in this EIS.

The other thing is that if there's other government agencies that want to participate as a cooperating agency -- the Fish and Wildlife and us are going to be joint lead but if there's other folks that want to be cooperating agencies, we still invite them as there's still an opportunity. And we will

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1	be doing formal consultation with the tribal
2	governments on this project as it goes
3	forward.
4	That's all I wanted to say. And
5	thanks everyone for your comments tonight.
6	MR. HAYSE: Thanks everyone for
7	coming. Safe journeys home. And this meeting
8	is adjourned.
9	(Whereupon, at 8:30 p.m., the
LO	meeting was concluded.)
11	
L2	
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