PUBLIC COMMENTS

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In the Matter of the Pleasant Valley Wind, LLC, Applications for a Large Wind Energy Conversion System Site Permit and a Certificate of Need for the Pleasant Valley Wind Project in Dodge and Mower Counties

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MS. BJORKLUND: So, with that, I'd like to open this up for your comments and your questions. So does anybody have any comments or questions?

We have a big crowd here. You guys all came out tonight, I'm sure somebody has something to say.

UNIDENTIFIED: I've got a map that said that they were coming down along Highway 56 from the north.

MS. BJORKLUND: Uh-huh.

UNIDENTIFIED: Is that going to be that way for sure or --

MS. BJORKLUND: Well, the project area that -- they've defined as the project area, they don't know exactly where the turbines are going to be, but they have an estimate and that's why the maps included in there for GE or Siemens of how those will be laid out.

UNIDENTIFIED: Okay.

MS. BJORKLUND: Other questions or comments?

Yes. We have a microphone here. Again, please state your name.

MR. ALLEN: David Allen. The question

here, I know you're putting everything together for the sites and stuff, but has anybody looked at an agreement as far as maintaining and putting down chloride and rerocking these roads and making sure they're taken care of during the project?

MS. BJORKLUND: Yes. We will be considering all these issues during the project, too, on the roads. Also, the county roads, I mean --

Larry, do you want to help answer that one?

MR. HARTMAN: Yeah. Roads are -- I think it's -- there's a lot of impact on the infrastructure in terms how these projects do affect the life of a road.

Can everybody hear me back there? I was told this afternoon that I wasn't able to be heard by everybody.

Typically, what's happening, a lot of the towns in southwestern Minnesota, they've had wind turbines for a number of years. As these turbines have moved a little bit further east and counties encounter these for the first time, there's kind of a steep learning curve for a lot of your road engineers, you know, other people who are involved

with that, whether it's township or county or state.

A lot of the counties got together and they've developed kind of a working document they're trying to get developers to use in terms of best practices for use of local roads. And there are a number of things the local engineers have to consider. You know, one, weight restrictions, time of year, bridge plans, the transportation logistics, depending where the turbines come from.

As I mentioned this afternoon, we have a project over in Freeborn County being built by Wisconsin Power and Light. And in this instance -- and I -- perhaps in this county also, the townships have delegated their road authority, the county highway engineer, to act on their behalf.

And for that project, it's the first one that I'm aware of that the -- these guidelines are going to be used as a guidance document. And the county road engineers, I don't know if they meet quarterly, I've attended two of their meetings in the last year or so and I think I'll be talking to them again this spring. There'll be an update on that.

And I think as more of these are put into place and we're trying to put documents, I guess,

before the local officials so they know what to expect and how to deal with those issue. So it's perhaps -- you know, this is RES's first project in Minnesota. They've done projects in a number of other states and I'm sure all states are a little bit different. To that degree, it's probably a learning curve for them also.

For example, if you consider some of the weights that are involved with these in terms of life expectancy of a road, for example, you know, by the time it's all said and done, your foundations might weigh about a million pounds. Depending on the size of the concrete trucks, from 8 to 12 cubic yards, might have 30 to 35 trucks of concrete per turbine, maybe 20, 30 tons of rebar per turbine.

The towers themselves, depending on which one is used, probably weigh upwards of 200 tons. The blades are probably 10- to 15,000 pounds apiece, and the cell that holds the blades in place might weigh another 40 to 60 and the generator itself probably weighs 160- to 200,000 pounds. There's, you know, a fair amount of truck traffic. The township roads, for example, they might extend the turning radius. Some of these trucks need a 150-foot turning radius to haul blades and tower

sections in, maybe 90 feet coming out.

So there are lots of little road issues that need to be coordinated and worked out. And again, I think this is what Mower County expects for the wind project. So the portion of the project that's in Mower County, I'm assuming the highway -- and I've met with the county engineers before on other projects, I'm assuming they have more of familiarity and they might be in a better position to discuss if -- I don't know if you're representing a township or not, to indicate what your concerns are.

Typically, the roads -- or the access roads go to the turbines. For example, counties might have a number of restrictions on the number of road cuts they allow, or driveway cuts, on a per-mile basis. That might affect where the access roads are.

You as a landowner have some input into that, depending on the orientation of your field, which way it's cropped, as to where the access road is. Also, typically they're designed to class five standard, so it's the same as township roads.

For example, when they build the roads, the temporary road will be considerably wider than

the permanent roads. Depending on the type of cranes used, if it's Manitowoc 16,000 or something like that, your temporary roads might be 30, 35, 40 feet. The width of your permanent roads typically are cut back to 16 to 18 feet in width.

I know the FBL project, which is High Prairie I, did permanent roads, and they used the Siemens 2.3 and shipped over a 600-ton crane from Denmark for that. And they put in roads that are about 40 feet wide, which were probably wider than what they actually needed.

Now, again, I don't think the plans call for the road to be that wide. In terms of what this does to cropland, and you've got your safety areas for the lay-down areas for the turbines, let's say you might need five to ten acres of land per turbine. But when is all is said and done, the land is restored, the land displaced by the turbine, the tower pad around the turbine, and the access road itself would probably average about one and a half acres per turbine.

Does that answer the question, sir?

MR. ALLEN: (Nods head.)

MR. HARTMAN: Any others regarding roads or --

MR. ALLEN: (Shakes head.)

MS. BJORKLUND: So again, any comments you would like to have become part of the record, if you have any. Are there any questions on the permitting process itself?

Yes, go ahead.

MR. MACHIN: My name is Todd Machin, M-A-C-H-I-N. Does your environmental assessment take into consideration the ground compaction issue on field tile?

MS. BJORKLUND: On field --

MR. MACHIN: Tile.

MS. BJORKLUND: Tile.

MR. MACHIN: Tile where it gets compacted.

MS. BJORKLUND: Yeah. If that's something that you think we should consider, yeah, definitely.

MR. MACHIN: But it's not part of your --

MS. BJORKLUND: No. What we're required to look at is pretty general, and then we typically do get into those issues.

Do we not, Larry?

MR. HARTMAN: The permits generally issued by the Commission make a number of

conditions, some of them are pretty standard. For example, they're required to repair all the drain tile they damage during the life of the project. And soil compaction, they're also required to alleviate soil compaction.

Ray Tucker was here this afternoon. Those of you who know Ray, he's in the tile business. I think in the Grand Meadow wind farm -- I think they cut about eight or nine hundred tiles, and to my knowledge they've all been replaced. If there's an ongoing problem, the company's obligated to fix and restore the tile to function in the way that it should.

MS. BJORKLUND: Any other comments or concerns?

Yes. Go ahead. There's a woman in back.

MS. GLASER: I guess my question is, given the amount of towers that have been put up in this area --

MS. BJORKLUND: Could we get your name?

MS. GLASER: I'm sorry. My name is Heather Glaser. And I was just wondering, given the number of towers that have been put up in this area within the last couple years, why this project is felt that it's needed?

MS. BJORKLUND: Well, that's a good question. That's part of what one of the permitting processes looked at is need, is this project needed. And that's something that we'll be developing the record, along with other people in the Office of Energy Security, on whether this project is needed, and that's something that is examined.

As you might be aware, there is a renewable energy standard in Minnesota that requires 25 percent of our electricity generation be coming from renewable energy by 2025. So that's part of the reason why you're seeing a lot of wind farms go up, this is a very good wind resource right in this area.

MS. GLASER: Given the wind resources, though, and the turbines that have been erected already, a lot of times you see them motionless. Is that because we're building these wind farms ahead of the technology to transport the electricity?

MS. BJORKLUND: Well, again, that's a really good question. Sometimes there are transmission constraints, other times they might be down for maintenance. There could be more than one reason why at times they might not be spinning when others are and there is wind.

MS. GLASER: Okay. Thank you.

MS. BJORKLUND: Thank you.

Yes. You, in the back.

MS. LANTOW: Carol Lantow.

MS. BJORKLUND: Yes.

MS. LANTOW: I'd like to know how this is going to affect the counties as far as taxes are concerned. Is there a set amount of money that's going to go to the county --

MS. BJORKLUND: Yes.

MS. LANTOW: -- for these projects going into their land area?

MS. BJORKLUND: Yes. There is, it's a production tax that the project will have to pay.

And, Larry, didn't we talk about a figure in the afternoon meeting for so many 50 megawatts, it generates --

MR. HARTMAN: I think Minnesota is the first state to do a production tax. A lot of other states treat it as a property tax. Your energy facilities, you know, basically the way the deals are structured, they depreciate rather quickly.

So if you go back to Buffalo Ridge years ago with the first wind project that was built, the first project might have paid $600,000 per year in

1 taxes, but by the year ten it might have been paying
2 50 to 60.
3 A number of us got together and worked on
4 what's called a production tax. So they aren't
5 assessed on the property value, they're based on the
6 energy they produce. So we're basically taxing the
7 air.
8 That tax is passed on through the
9 ratepayers. So, for example, a 100-megawatt farm
10 might typically pay, assuming a wind resource
11 capacity factor in the range of 35 to 60 percent,
12 might pay on average 300- to 400,000 dollars per
13 year in production taxes.
14 Every year, February 1st, the wind
15 developers are required to report to the state of
16 Minnesota on a form called an M-25 their production.
17 And the state sends that out and the money is then
18 sent to the counties. The counties keep 80 percent
19 of that money and -- originally the law sent seven
20 percent to the school districts, 13 percent to the
21 townships. Obviously, there's a change in the law
22 that I know affected some people down here a couple
23 years in budgeting and now it's 80 percent to the
24 counties and 20 percent on the townships hosting the
25 turbines.

1 So when counties -- and we're a little
2 bit out of sync yet in terms of when counties
3 establish their budget versus the production
4 numbers. Now, that production number's going to
5 vary a little bit every year depending on the wind
6 resource.
7 Because of El Niño, this year wind
8 production is basically down across the state, as
9 well as the Upper Midwest. But in terms of the
10 revenue stream, it might fluctuate five, ten,
11 probably no more than 15 percent. That revenue
12 stream will come to the hosting community for the
13 life of the project, so the community is going to
14 get a lot more money over the long haul versus what
15 they would over the property tax.
16 Does that answer your question, ma'am?
17 MS. LANTOW: (Nods head.)
18 MS. BJORKLUND: Sir, can we get your name
19 for the record?
20 MR. MACHIN: It's Todd Machin. There're
21 production tax credits from the feds now.
22 MR. HARTMAN: There's a federal
23 production credit. Minnesota offers no tax credit.
24 This is the money they pay to the counties and the
25 townships hosting the facilities. That's paid for

1 by the developers out of their pocket.
2 However, because the PPAs, power purchase
3 agreements, are authorized by the Commission, the
4 tax base goes through the rate base of consumers, so
5 that's just factored in.
6 MS. BJORKLUND: Other comments and
7 issues, questions?
8 Yes, sir.
9 Oh, Larry, right there in the -- oh,
10 we'll get to you next.
11 MS. LANTOW: Who actually monitors how
12 much wind energy is produced when we're assessing
13 these taxes? Do we just take the word of the wind
14 company or do we have checks and balances in place?
15 MS. BJORKLUND: Could we get your name?
16 MS. LANTOW: Carol Lantow.
17 MS. BJORKLUND: Thank you.
18 MR. HARTMAN: Carol, the answer to your
19 question is they report -- they report -- the
20 utilities also meter what they pay for. So, for
21 example, when the company sells energy, there is
22 a -- I guess a metering station outside the hosting
23 utility's substation where they make that
24 interconnection. That's where all the energy's
25 metered. So the purchasing utility only pays for

1 the energy they receive. We can track the numbers
2 that probably -- what the utilities pay out in terms
3 of what -- they're supposed to report production
4 numbers to us, and they also report them to revenue.
5 So there are ways of perhaps providing a check and
6 balance.
7 And again, it's not clear to delineate at
8 this point in time, it's something we're -- some of
9 us are working on right now.
10 MS. BJORKLUND: And there was a gentleman
11 over here who has a question, Larry. Or -- sorry.
12 MR. HARTMAN: You were closer
13 (indicating).
14 MR. SCHLICHTER: Yeah. My name's
15 Norb Schlichter.
16 Wouldn't you be a bit concerned about the
17 county and maybe even the state being the ones
18 watching out for us when it appears that, with the
19 tax problems and the economy the way it is, are we
20 sure of the people that are watching it that they're
21 looking out for our best interest, or is it for the
22 money that's going to be reaped, county and state?
23 MS. BJORKLUND: By law, they cannot take
24 that money and use it for anything else. I mean,
25 this is a designated purpose, that money is going to

go where it's supposed to go.

MR. SCHLICHTER: Who is actually watching for our best interests, would you classify it as the county's looking out for us? I kind of doubt that.

MS. BJORKLUND: If you have any concerns or complaints as this whole process moves forward, you can contact our office. I mean, that's what we're here for, so at any point if you have a concern about anything.

MR. SCHLICHTER: One more time, where does this application go to, is it a board of people in the Cities?

MS. BJORKLUND: Yes. It's the Public Utilities Commission, and it's five Commissioners that are in the Twin Cities. I think one of them is required to be outstate. And they govern the regulatory process and they make the decisions.

We provide recommendations, our staff, our Office of Energy Security, Energy Facilities Permitting division provides recommendations to the Public Utilities Commission. But they decide what should be in a permit and whether a permit should be issued and whether -- on the need and the site.

MR. HARTMAN: I might add, as a point of clarification, we had a wind developer at one point

in time who was kind of cheating. He got caught, and his mail comes from Sandstone now. So there's a disincentive when you cheat the system.

MS. BJORKLUND: Well said.

Any other -- go ahead, sir.

MR. SWANSON: I'll grab the mic. Randy Swanson. And I guess I'm pretty loud here. I have a question, maybe it's going to answer something that was asked previously, and that has to do with the tile. It's been a problem before where they have cut tile and are cutting thousands of tile when they do this. They say they're going to come back and fix it. Who determines when they're going to fix it? Because this Commission that takes care of this is also the power company, they are not going to shut this down. And that's what usually happens, they will not shut turbines down. It cannot be fixed when it really needs to be fixed and it might be a year down the line. It's a long -- it might tip them at the wrong season or anything like that, as far as the tile goes.

The other thing is, who determines when one of these companies are negligent on payments, first right of refusal, they have been for us. We are getting nothing.

MS. BJORKLUND: Well, we're going to do a couple things here. First, the Public Utilities Commission is an appointed body by the governor. They are not associated with a power company or a utility. It's an independent board.

Second, on who is watching this, the office at our department watches the progress and keeps a close eye on the progress and we work with the applicant and complaints come to us and we really follow through on that.

And your last point was -- oh, what was it, again?

MR. SWANSON: Who determines who's negligent, what are you going to do about it?

MS. BJORKLUND: Oh, that's right. I know you were specifically talking about the right of first refusal and whatnot, those are contractual issues between two private persons, you know, the company and the landowners. And we don't engage in policing easement agreements. I mean, that's something, if you have a concern contact an attorney on that.

MR. SWANSON: And they have first right of refusal on even if you want to put a mortgage on your land.

1 MS. BJORKLUND: I'm not familiar with
2 what is in the agreements, we've don't -- that's not
3 a part of what we do. Again, those are two -- those
4 are private contacts between private parties.
5 MR. SWANSON: Those are the things I
6 guess I'm concerned about, because there isn't
7 really anyone policing that. And on your
8 commissioning board you do have to have somebody
9 that knows the public utilities, and so they have
10 great influence.
11 MS. BJORKLUND: They do regulate the
12 public utilities. They do regulate them, that's
13 correct.
14 MR. SWANSON: The other thing is as far
15 as eminent domain, they're not claiming that as far
16 as on the windmills right now.
17 MS. BJORKLUND: They cannot.
18 MR. SWANSON: But as far as if this is
19 something where they say, well, we do need to have a
20 power line through your land, is that going to
21 happen in the future?
22 MS. BJORKLUND: No. They do not have
23 eminent domain authority.
24 MR. SWANSON: Will that change?
25 MS. BJORKLUND: That's up to the

1 legislature. I don't foresee that happening at this
2 point. As a matter of fact, it seems to be going
3 the other way. There was a big eminent domain
4 overhaul in 2006. I guess they're discussing
5 eminent domain legislation as it relates to
6 utilities. This legislative session, I don't know
7 how -- I have no idea what the outcome is going to
8 be. But no, they do not have that authority and I
9 don't foresee that in the future.
10 MR. SWANSON: I guess going back to the
11 question there as far as who's policing this if it
12 has to do with financial matters and things, and
13 we've already found some dishonesty within some of
14 the companies, then -- and you're saying you're not
15 policing that or doing anything that way, that's out
16 of your jurisdiction. How do we know -- we're
17 strictly up to them as far as when payments are
18 supposed to be made on the windmills as far as the
19 county goes, everything like that, who determines
20 that? Who's reading the meters, who's doing that?
21 MS. BJORKLUND: Well, I think those are
22 two different questions. I think the one -- the
23 question dealing with the easements, again, if you
24 have concerns that you're not being treated fairly
25 or they're not following the contract, contact an

1 attorney.
2 With respect to the reporting, that's
3 something they're required to do. And as I said,
4 someone was misreporting and they got caught and
5 they're in jail.
6 So -- but those are very -- that's a very
7 serious issue, if somebody wasn't reporting
8 correctly.
9 MR. HARTMAN: Perhaps if we could get Joe
10 to also answer your question about drain tiles. I
11 know we have a drain tiler here who could maybe talk
12 about his experience.
13 UNIDENTIFIED: Your mic is off.
14 MR. HARTMAN: Joe here from RES can talk
15 about their approach to handling drain tile.
16 Ray, I don't know if you want to address
17 drain tile as a professional tiler here?
18 MR. TUCKER: No. Go ahead.
19 MR. GRENNAN: Hello. My name is
20 Joe Grennan, I'm the permitting director with RES.
21 And I just heard that question about drain tiles and
22 it's come up now twice. And our plan is to have a
23 local contractor there on site as we're doing our
24 construction to fix the drain tiles when they're
25 broken.

1 So we'll have a team there if we do break
2 one and, you know, it might happen because there's a
3 lot out here. We have mapped all the drain tiles to
4 the best of our ability at this point so we're
5 trying to avoid them. But if we do -- if we do end
6 up breaking one, we're going to fix it right there
7 on the spot, it's not going to sit around for days
8 or weeks, we're going to take care of it right away.
9 MS. BJORKLUND: Thank you.
10 There's a few more hands in the back.
11 MR. HARTMAN: Before we move on, there's
12 another component of your question regarding lease
13 agreements. And I know that companies typically --
14 when you assign wind rights to them you do a number
15 of things.
16 One, they want to be sure you're not
17 planting trees to grow in front of the windmills or
18 build silos there. Now, my experience in that has
19 been that sometimes -- and this has been years now
20 since it's occurred -- there's a landowner who
21 wanted to do something on his land completely in
22 conformance with the terms of the lease agreement.
23 The company kind of dragged their feet on giving him
24 the release he needed, or getting him the paperwork
25 he needed to proceed with his permitting. The

1 landowner called me and we got it straightened out
2 in about two days.
3 You know, again, that's the type of thing
4 I don't know what RES's policy is when a landowner
5 wants to make an improvement or modification to his
6 property. I don't know how long -- I don't know
7 what their response is.
8 Joe or Paul, can you answer that?
9 MR. JOHNSON: Well, generally we site the
10 facility in the first place to conform to the
11 setback requirements, and we also have an agreement
12 and understand where the plan -- existing and
13 planned structures are on a particular parcel or
14 farm. So we have that information going into the
15 decision to where we would put roads, where we would
16 put turbines and so forth. So we try to get as much
17 information upfront to avoid that conflict from ever
18 occurring.
19 But there is a restriction, just from a
20 safety standpoint, as far as where structures can be
21 placed once the turbine site is determined, for that
22 purpose. So --
23 MR. HARTMAN: How long does it take you
24 to get an answer?
25 MR. JOHNSON: Well, I guess that depends

on the request as far as how close the structure would be and how good the information is, how long it takes to get the information and evaluate it, I would say a matter of probably a couple weeks would be the worst case.

MS. BJORKLUND: I saw a couple of hands here in the center. Who had a comment?

UNIDENTIFIED: Back here (indicating).

MR. SCHLICHTER: I don't know about the rest of the people that have --

MS. BJORKLUND: Can you state your name?

MR. SCHLICHTER: Norb Schlichter, again.

MS. BJORKLUND: Thank you.

MR. SCHLICHTER: That now, as we're getting our easements and so on, people came around and, of course, you know, you ran through it and looked through it. And of course, I don't know, I'm just speaking on my behalf, but, you know, I had a lot of questions about the other wind projects that I just asked nonchalantly and they said, well, by all means, of course, yes.

Tile was one of them, of course. Can we use our own contractor who we choose to use? No problem, by all means. The placing of the roads so that they're working correctly, no problem.

1 Whatever works best for you within a certain means,
2 we'll work on that.
3 Now, here, tonight, you guys are saying
4 that you're abiding by what the people that actually
5 sold the easement to us, so to speak, had to say at
6 that time, right? You're agreeing that we can use
7 tile -- whoever we want for tile, fix it, you're --
8 no problem, right?
9 MS. BJORKLUND: Larry, do you want to
10 help me out with that one? I think some of it has
11 to do with a particular agreement that has been
12 entered into between the landowner and --
13 MR. HARTMAN: A quick one, which may not
14 be satisfactory. Our permit just specifies that the
15 tile be repaired --
16 MS. BJORKLUND: Yeah.
17 MR. HARTMAN: -- at any point in time
18 during the life of the project. Now, do I care who
19 does the tile replacement? Not really.
20 Although, Ray, do you want the business?
21 The fact is that I -- you know, I don't
22 know what they have in their easement agreement
23 regarding that. I don't know what you've been told
24 regarding that. It's been my experience that to
25 date I'm not aware of it as having been an issue.

1 That's not to say that it's not or it couldn't be
2 going forward. I'm just not -- I don't have any
3 experience where it has been a problem to date.
4 Now, again, that's not to say there's not
5 a problem and I don't know how many drain tilers
6 there are out there.
7 Ray, do you have a lot of competition?
8 MR. TUCKER: Just remember that you need
9 to be insured to be able to do that and also meet
10 the standards of the company.
11 UNIDENTIFIED: I think the question here
12 was addressed toward RES, not you.
13 MR. HARTMAN: Yeah. No, I understand. I
14 just wanted to answer it from my point, I was going
15 to turn it over to Joe or Paul to provide it from
16 their perspective.
17 MR. GRENNAN: Yeah. I mean, if there's a
18 specific drain tiler that you would like to use, you
19 know, we'll work with you on that. I think our
20 immediate concern was to get it fixed as quickly as
21 possible if we break it, so that's why we wanted to
22 have somebody there ready to fix it when it gets
23 broken. But if there's a, you know, specific person
24 that you'd want to use, we will work with you on
25 that. That's not an issue.

MS. BJORKLUND: There were -- there's a couple more hands up. Again, please state your name for the record.

MR. HARTMAN: She had a question earlier, why don't we give her her turn.

MS. STENZEL: Diane Stenzel. This is for the PUC and any applicants. How many follow-up studies have you guys performed regarding the residents who live under these wind turbines and what's the data that you collected on all those studies?

MS. BJORKLUND: We do -- excuse me. We do ask the applicants if they do any studies that are not required by us to submit them to us just so we can review them and learn from them.

Sometimes -- Larry, I think sometimes studies are required and sometimes not. Can you elaborate on that?

MR. HARTMAN: As part of our permit, there are a number of studies and reports that are required in terms of follow-up. Have we sent out surveys to landowners after the fact, no. That's something we're looking at. We've had a lot of concerns about wind farms in, oh, I guess newer areas where they haven't had them to date.

1 Just by way of background, Minnesota, I
2 don't know how many wind farms we have, we have
3 about 1,800 megawatts of wind energy currently
4 installed in the state of Minnesota since 1995. So
5 we have a very good kind of working laboratory out
6 there for survey research, measurement studies, and
7 the PUC's beginning to look into some of those. And
8 I personally have a background in survey research
9 and I think it would be fascinating to go out and do
10 some follow-up studies and it's something we're
11 trying to work on.
12 Was there something you specifically had
13 in mind?
14 MS. STENZEL: No. I was just concerned
15 because I read in the Post-Bulletin there was only
16 three complaints. And there are -- do you guys know
17 that there are gag orders out there and
18 confidentiality clauses?
19 MR. HARTMAN: Well, you know, the thing
20 about gag, and I keep hearing it, for some reason.
21 Now, what they ask you to do is not discuss the
22 financial terms or conditions. I'm not aware of any
23 other restrictions above and beyond that.
24 I might add that every permit we've
25 issued to date, there is a permit complaint report

procedure in that permit. Every landowner gets a copy of that permit. It's about 30 pages long, I think it's written in fairly clear English.

There are four attachments on the back. One would be a site map, one is a complaint reporting procedure that the company has to implement and all landowners receive a copy of that. The permit will have our 800 number in there and also filing complaints electronically.

If complaints are filed with the company, they are required to forward them to us the 15th of every month. And over the years, again, I think I've had probably less than five complaints on wind farms and I said this afternoon, most of those have been about speeding concrete trucks.

MS. STENZEL: I know North Dakota has changed the law where you have to have that be on the first page of all the contracts because otherwise, to dig through an 80-document report, you know, it's hard to find.

Plus, I also called and I didn't get any response. The person I talked to did not ask for my name, did not ask my concerns, it was a total no dialog on my part.

MR. HARTMAN: Who did you call?

MS. STENZEL: The PUC, about a year ago.

MR. HARTMAN: Generally, calls on wind are forwarded to me and I don't remember receiving any. I know we did have one complaint down here last year, so I went out and did some noise monitoring. I've been meaning to do some follow-up work on that just to speak to the lady and I don't know -- I don't recall the name at this point in time. But again, if I get a complaint, I generally follow up on it as soon as I can.

MS. BJORKLUND: Okay. Thank you.

Is there somebody else -- yeah.

MR. MAKI: Troy Maki. What's been the average impact to the real estate values? And did I understand you right, the project would begin potentially December 2012?

MS. BJORKLUND: That's their target commercial operation date.

So in terms of property values, I'm not aware of any studies that have been done that have drawn the conclusion that a wind farm lowered the property values. That's not to say that they don't, I really don't know.

It's an area that is difficult to isolate, cause and effect on property values,

because there's so many other things that go into the property values. I mean, obviously, right now the economic crisis that we're in, the recession has had a very dramatic impact on property values.

It's difficult to say what is the cause, but we will take your concerns into consideration as we move forward with this permitting process. I heard that quite a bit in the afternoon meeting as well, and it's part of the record and we'll try to address it as best we can.

But I'm not aware of any studies out there that have drawn that conclusion.

MR. MAKI: Well, might I suggest you do one?

MR. HARTMAN: Can I respond? There are -- last fall, the property value study came out. It was performed by Lawrence Livermore Laboratories of Los -- Berkeley, Los Alamos, I believe, and it was kind of a nationwide look at wind farms.

The author on the study was Ryan Wiser, and it might have been funded through a Renewable Energy Laboratory grant. It's probably the first comprehensive study. And, again, what I'd encourage you to do -- I think the main conclusion was there wasn't any indication that wind farms have affected

1 property values.
2 I've also seen a study in Wisconsin that
3 claims otherwise. And in looking at that study I
4 thought the methodology was flawed in some of the
5 assumptions they made. I encourage you to go to the
6 web and you can download it if you just type in
7 Lawrence -- Ryan Wiser, wind energy property values,
8 the study will probably pop up. And that's been the
9 most comprehensive study that I think looked at wind
10 turbines in, I want to say, 17 states or something
11 like that.
12 Now, again, a lot of the other states, in
13 California, a lot of those wind farms are built in
14 fairly isolated areas, Tehachapi and San Gorgonio,
15 which is outside of Palm Springs, the Altimont,
16 pretty low residential areas. Texas, basically no
17 people in west Texas. You get a permit from a judge
18 in a day, all he has to do is sign a piece of paper.
19 If you look at the wind farms in
20 Minnesota, Iowa, it's probably fairly typical of
21 what you find in rural -- excuse me -- rural areas,
22 typically maybe four homes per square mile or
23 something like that. A little bit further out east
24 you get more, you know, as you get parcels that are
25 a lot smaller. So the numbers are different

depending on where you're at.

And originally some of those studies were -- I think there might have been an early study in Minnesota, but there hadn't been enough farms that had been sold or real estate transactions to indicate anything one way or the other. But I encourage you to just go online and look up some of those studies and read it and draw your own conclusion.

MS. BJORKLUND: Thank you, Larry, for that addition.

MS. LANTOW: Carol Lantow. I'm speaking as a Realtor. I don't think the property values per se would be affected. However, I do think that the setback is really important and I think any windmill should not be any closer to any house unless the property owner agrees. If they don't agree, I don't think it should be any closer than one mile.

MS. BJORKLUND: Well, regardless of -- they have to abide by the noise standard, and that's in the rules. And right now our setback is a minimum of 500 feet and/or the noise standard. Typically that requires the setback to be further than 500 feet.

MS. LANTOW: I think that should be

1 changed.
2 MS. BJORKLUND: Well, they're looking at
3 those issues at this very moment, I'm sure. So the
4 PUC is looking at the issues and I think the
5 legislature is, too.
6 RES Americas has volunteered to abide by
7 a 1,500 setback where feasible. I don't think
8 they're promising it absolute, but they're
9 certainly -- that's their goal. And it sounds like
10 they're going to be meeting that with all or close
11 to all cases, the 1,500-feet setback, which is more
12 than your average other wind developer, that they're
13 committing to. So --
14 MR. HENDRICKS: Why has the state not
15 accepted the recommendation by the Minnesota
16 Department of Health that is .6 miles from a
17 residence?
18 MS. BJORKLUND: Can we get your name?
19 MR. HENDRICKS: Mark Hendricks
20 (phonetic).
21 MS. BJORKLUND: Thank you. Well, the
22 Commission does have an open docket on those issues.
23 Again, with the detail, I think that the half-mile
24 setback that people commonly refer to is not
25 something that the study universally is applying in

1 every situation.
2 And, Larry, do you want to help me out
3 with specifically where that half-mile --
4 MR. HARTMAN: If you carefully read that
5 study, it will indicate that, you know, at distances
6 up to a half a mile. It's not -- it didn't
7 recommend that as a -- what a setback should be.
8 If you also look at the study, a lot of
9 it goes to, you know, low frequency noise, health
10 effects, and if you carefully read the study you
11 will find that the word scant evidence was used. In
12 other words, there just isn't much foundation for
13 that yet at this point in time based on what we
14 know. Some other studies have come out, same
15 conclusion. And if you go to the web, you'll find a
16 whole range of studies telling you -- you can
17 probably find a study that conforms with your
18 belief, and I'll just let it go with that.
19 MS. BJORKLUND: Okay. Yeah. We have
20 another comment in the middle.
21 UNIDENTIFIED: Related to the -- excuse
22 me. Related to the public health impact on these
23 wind farms, you said that there is scant evidence.
24 Is that based on the fact that these wind farms are
25 relatively new and therefore the time since exposure

1 hasn't been able to actually be adequately measured
2 to do a proper study, or is it that the evidence is
3 not there? When were some of the earliest wind
4 farms developed, I guess is one question. So do we
5 have adequate follow-up to really assess some of the
6 long-term complications?
7 MR. HARTMAN: I'm going to answer. Well,
8 California had a lot of wind farms in the '80s, a
9 lot of them were built more as a -- because they
10 never produced any energy. If you look at the
11 conventional modern-day wind turbines, and let's go
12 back to, say, the mid-'90s. Now, Europe typically
13 has larger turbines than we have, and I think the
14 health department study, there's a study done in
15 England that looked at 194 different wind farms.
16 They found problems with I think it's an isolated
17 two or three wind farms and most of the complaints
18 were related to those wind farms.
19 There was another significant study done,
20 I forget the name of the author, it's a Dutch study,
21 about one particular turbine. And I believe that
22 turbine was on a 100-meter tower and there's
23 probably some miscalculation on the wind shear, so
24 it was leading to over-speeding which created some
25 noise issues.

The other problems, I'd say alleged problems, have surfaced more recently. And again, you can find studies out there taking any number of points of view. You know, some of them, let's say, are peer-reviewed. Others are not peer-reviewed, might fall more under the area of what's considered grey literature.

So you can find some legitimate, I guess, disagreements out there. Again, we're -- on probably some of the recent wind farms we've permitted we are going to do more noise monitoring and study. We did do some noise studies back in '98, '99, a couple of the first wind farms in Minnesota. And those studies were done by a firm called Hersh Acoustical out of California. Those studies are somewhat dated now, given the turbine size then. We've had a number of advances in turbine design, blade design. If you consider noise as being wasted energy, the blade design is much more efficient now so that noise is now converted to energy.

So we're going to be doing some additional studies on future wind projects, on noise, looking at noise levels and different frequencies and under different considerations.

MS. BJORKLUND: Other comments?

Yes.

MR. SCHLICHTER: Yeah. Norb Schlichter, again. Does a 2.3 make more noise than a 1.5?

MS. BJORKLUND: You know, that's a good question. Not necessarily, it depends on the turbine manufacturer.

MR. SCHLICHTER: If that's the case, then why wouldn't you just put in less turbines?

MS. BJORKLUND: You know, I think when it comes to choosing turbines, I think there's a lot of factors that goes into it. One is turbine availability and pricing, so there's a lot of factors to consider.

MR. HARTMAN: There are some Siemens 2.3 turbines down on the High Prairie I project owned by Florida Power and Light, I think those have a 93-meter rotor diameter on them, if I remember correctly. I have a GE 1.5, which are the predominant turbine used in Minnesota.

I don't know the status of the new Siemens turbines. One of the reasons that the GE turbine is more commonly used is that they have a cold weather package. I don't know that the Siemens turbine has a cold weather package and it also

1 affects your energy production. Granted, it's a
2 smaller turbine so you need more to get to the
3 equivalent capacity.
4 MS. BJORKLUND: Yes.
5 MR. ALLEN: David Allen, again. I'm just
6 wondering how much of this contracting is going to
7 come out of state, or what it's going to do for
8 local people?
9 MS. BJORKLUND: I think RES Americas can
10 talk about that. But it does generate jobs and
11 there's, what, several hundred construction jobs at
12 the time and then the O and M positions.
13 MR. JOHNSON: Typically for construction
14 for this project you're going to see between three
15 and four hundred people during the construction
16 phase, and then during long-term operation that
17 starts out with the -- in most cases we do five
18 turbines, the turbine provider has a warranty
19 obligation as well as doing the operation and
20 maintenance services for the first two to five
21 years.
22 So they staff the site with two to three
23 people, and then alongside of them the owner of the
24 project also staffs it so they can pick up all of
25 the information they need. So that once the

warranty and operation period is done from the turbine suppliers' responsibility, the long term O and M of that facility is usually carried forward by those technicians that have now been spending two to five years with the turbine suppliers.

So depending upon the size of the project, you'll see two to four people per 50 megawatts, so six times that for 300 megawatts.

MR. ALLEN: But how much of that is going to be local?

MR. JOHNSON: Most of that's --

MR. ALLEN: There's got to be something that says how many local -- is there something that says they've got to keep local contractors as much as possible?

MR. JOHNSON: Well, the technicians, that really is a function in the industry right now of what schools are providing wind technicians and how close they are to those areas.

MR. ALLEN: Right. But who's building these roads and stuff?

MS. BJORKLUND: I think when you --

MR. ALLEN: I know Ray Tucker and he can fix the tiles, but you've got other local contractors who could bring their dozers in and make

1 the roads and keep them busy instead of bringing
2 them from out of state.
3 MR. HARTMAN: That question was asked
4 this afternoon and I'll try to give a -- I'll try to
5 answer the question again. There are several large
6 firms that do perhaps the bulk of the wind farm
7 construction in the U.S. Two of those firms are
8 Minnesota-based, Blackner out of Avon, which would
9 be northwest of St. Cloud, and Mortinson, which is
10 based in Golden Valley.
11 Now, Mortinson I know has done most of
12 the work for enXco throughout the state. Typically,
13 I know that Mortinson now has 200 people full time
14 on their staff. When they come out and do a project
15 they might be the EPC contractor. So the total
16 staff might be comprised of ten to 15 percent of
17 Mortinson staff, and typically they try to hire the
18 other 80, 85 percent locally depending on
19 qualifications, which goes to, you know, roads,
20 hauling gravel, cement, electric -- well, you know,
21 workers. I know that when they built the Grand
22 Meadow I, I know that some of the electricians were
23 out of the Twin Cities and I talked to a few who
24 were local also. It depends on what's out there for
25 jobs, and for union jobs it depends on what area

they're assigned to.

So typically -- you know, I can't say my experience has been the bulk of the work force tends to be local rather than from other areas if there are qualified people in the area.

MR. GRENNAN: Just to add on to that, RES is also a constructor of wind farms, and our approach is to try to use local contractors when we can. So, yeah, there will be some opportunities for local contractors.

I think what Paul was saying earlier, there are some technical aspects, especially with the turbines, where unless you have the training it's not going to be a fit. But the roads, tiles, just some of those type things, yeah, definitely we will be looking for local contractors.

MR. HARTMAN: Can you operate a 600-ton crane? Not qualified.

UNIDENTIFIED: Not yet.

MR. HARTMAN: Training starts tomorrow.

MS. BJORKLUND: Somebody wants to comment here in the yellow plaid shirt.

MR. REINARTS: Yeah. My name's Peter Reinarts, R-E-I-N-A-R-T-S. I work with a large group of people from Olmsted County that are

concerned with the development that's going on with wind. Our organization is called Olmsted Wind Truth and our website is OlmstedWindTruth.com, for anyone who's interested in looking at that.

I have a cold, excuse me.

I'd like to just comment on three things. One would be the certificate of need, the --

UNIDENTIFIED: Can you speak up?

THE WITNESS: Pardon?

UNIDENTIFIED: Can you speak up?

MR. REINARTS: Okay. I would like to comment on the certificate of need just briefly, the environmental review, and then, thirdly, this docket that you spoke of earlier that the MPC -- PUC currently has open.

First on the certificate of need. As you commented earlier, any company that wishes to build a power plant greater than 50 megawatts needs to demonstrate need. And the reason they have that, if you recall back in the '70s when people were building power plants like crazy, we overbuilt, and of course who pays for that is the customer. So there's a reason they have to show need. They also have to show that it's cost-effective.

Now, I've read the RES certificate of

need and they definitely do not show need. There's a question if GRE does purchase the energy, maybe. But if GRE does not purchase the energy there's no need.

Now, I -- the reasons are too complicated to discuss here, but I will follow up with some writing that will explain --

MS. BJORKLUND: Please do.

MR. REINARTS: -- our position. And also they failed to show the cost-effectiveness, so they failed on both parts of that. And we'll follow through with our cost estimates as well as our reasons why they don't show the need.

On the environmental review, one thing people may not be -- excuse me -- aware of is that all the environmental reviews used to be performed by the Minnesota Pollution Control Agency. They have a lot experts there, a lot of bright, bright people who do this all day and all night long. This is their life's ambition, being environmentalists.

Well, some time ago, some politician in St. Paul thought it was a wise idea to take that responsibility away from the MPCA, Minnesota Pollution Control Agency, and give it to the Public Utilities Commission instead. I think that was a

big mistake, because the Public Utilities Commission, although they are very bright people as well, their forte is not environmental review.

As a result, the study, the ER that was done for the Bent Tree project had a lot, lot of holes in it and did not answer the concerns of several people. So what I would like to do is I will also provide you recommendations for the environmental review to help satisfy some of these questions that were raised in the Bent Tree project.

My goal is, I want to be able to -- excuse me just a second.

I want to be able to go to my neighbors, the people in our group, and when they come to me and say, you know, Pete, I'm concerned about this wind turbine being 1,500 feet from my house, I can look them in the eye and I can tell them I worked with the Department of Commerce, I got -- I looked at the environmental review, and you're going to be okay, don't worry about it. I cannot say that about Bent Tree.

MS. BJORKLUND: If I could just add something on the -- clarify on the -- who's doing the environmental review. It was the Environmental Quality Board that did the environmental review.

1 And in 2005 the legislature, as part of streamlining
2 the process, moved it to the Office of Energy
3 Security. And that's our staff and it's essentially
4 the same staff, they literally just picked up the
5 department and moved them.
6 MR. REINARTS: Well, actually the MPCA
7 personnel do the environmental review and the EAW
8 and the EIS. The Environmental Quality Board just
9 approves it and reviews it. So they're not actually
10 doing the work, the work is being done by the people
11 down in the trenches.
12 Thirdly, the docket that's already open,
13 you guys are well aware of that.
14 MS. BJORKLUND: Yes.
15 MR. REINARTS: People here may not know
16 about it, but because of the Bent Tree project and
17 the problems with that the PUC has asked to open a
18 docket to address some of these issues. They had
19 Minnesota Department of Health perform this study,
20 and there was a meeting on February 1 when the PUC
21 agreed with the public that there are a lot of
22 unanswered questions yet that have to dealt with.
23 So they have kept this docket open, they're going to
24 address this.
25 What I would like to do is ask that you

hold off on doing your environmental review for this project until the results of that study are done, because the last thing we need is another bad project. You know, people don't remember the good ones, they remember the bad ones. And it's in everyone's best interest, whoever supports wind but agrees that they need to have a good project, so I would encourage you to hold off on your environmental review until that activity is done.

Finally, to clear up a couple misstatements, earlier someone had asked about eminent domain. And although the RES does not have eminent domain, there's additional transmission that needs to built for this. That is being built by Southern Minnesota Municipal Power Agency, Xcel Energy, and Dairyland Power. They do have eminent domain, so that stuff can be put through your farms without you having to say anything about it.

MS. BJORKLUND: That's a separate project, though.

MR. REINARTS: No, that's part of this project as well.

MS. BJORKLUND: But it has its own regulatory process.

MR. REINARTS: That's right, it has its

own regulatory process, but they do have eminent domain. And the only reason they're putting that in is for this wind project. That's the only reason that power line needs to go in there. If it wasn't for wind, they wouldn't need it.

There was also some comments about gag orders. And, Larry, you know as well as I do, you were involved with the Bent Tree project, there was plenty of information filed there by Carol Overland that shows that there were gag orders with some of the people there.

Also, there was a comment on Minnesota Department of Health's study, Larry, I think you said it was up to a half a mile. That's a little misleading because they did say under certain circumstances that can travel over a half a mile.

Finally, anybody who is interested in joining our organization, I encourage you to contact us, again, on OlmstedWindTruth.com. And I think that is it. Thank you.

MS. BJORKLUND: Thank you.

MR. HARTMAN: Thank you. With respect to being accurate, I'd like to point out a couple things. First of all, the MPCA does not have permitting authority for a power plant. They do the

1 air emissions work, they do not do the site location
2 work. They're two different things.
3 The PCA does the air monitoring. The
4 EQB, which was created in 1973, was vested with the
5 authority to site all power plants above
6 50 megawatts, it might have been 80 megawatts then
7 and lowered to 50. And they have the authority for
8 all transmission lines over 200 kV, since then
9 that's been lowered to 100 kV.
10 The PCA still has permitting authority
11 for thermal facilities, gas plants, coal plants,
12 things like that. They've never had it for energy
13 facilities, per se, in terms of siting.
14 MR. REINARTS: What's your definition of
15 an energy facility?
16 MR. HARTMAN: Power plant.
17 MR. REINARTS: You just said that they do
18 have thermal facilities.
19 MR. HARTMAN: Air quality permits, air
20 quality only.
21 MR. REINARTS: They also do EAWs,
22 correct, and EISs?
23 MR. HARTMAN: They participate in the
24 environmental review process or EISs on power plants
25 also. But again, that permitting authority now

1 resides with the PUC, it's never been with the
2 Minnesota Pollution Control Agency.
3 I've been at the state since 1975 and I
4 know where I work, so I'm pretty sure of what I'm
5 saying.
6 MR. REINARTS: Well, you're contradicting
7 yourself.
8 MR. HARTMAN: No, I'm not contradicting
9 myself.
10 MR. REINARTS: The EIS and EAWs are done
11 by the MPCA; is that not correct?
12 MR. HARTMAN: No. What I said --
13 MR. REINARTS: Who does the EAWs, then?
14 MR. HARTMAN: EAWs are -- have --
15 typically for energy facilities have been the
16 responsibility of the EQB. Now, again, we don't do
17 EAWs on energy facilities anymore because most of
18 them are above 50 megawatts. If it's above 50
19 megawatts it takes a site permit from the Minnesota
20 Public Utilities Commission.
21 Prior to it be being transferred to the
22 EQB and since the siting legislation was established
23 in 1973, the permitting authority to determine where
24 power plants are built, whether it's a gas plant
25 like Pleasant Valley, Lakefield Junction, some of

1 the others, that authority has been with the EQB,
2 now with the PUC.
3 Again, PCA participates and they do the
4 air quality monitoring as to limits or emissions on
5 pollutants, you know, SOX, NOX, and all the other
6 stuff that goes with thermal facilities.
7 MR. REINARTS: I don't mean -- we'll,
8 let -- I don't mean to get into a debate with you
9 here.
10 MR. HARTMAN: No. I just want you to be
11 sure when you go back and you talk to people, you
12 can tell them an accurate story.
13 UNIDENTIFIED: The PCA sure killed that
14 plant down to Preston.
15 MR. HARTMAN: Pardon?
16 UNIDENTIFIED: The PCA, in spite of
17 having PUC approval, killed that tire burner down in
18 Preston.
19 MR. HARTMAN: They're a different
20 permitting agency, so they have a role in the review
21 process, and that's their entry.
22 MS. BJORKLUND: Other comments,
23 questions?
24 MR. HARTMAN: Excuse me, Paul.
25 MR. JOHNSON: Again, thank you for your

interest and your questions and comments. Just a couple of clarifications as far as RES Americas is concerned.

The two transmission projects that you have mentioned are not a part of the Pleasant Valley project. We do have a route permit that we're intending to file here in the next couple of weeks that is associated with the substations and transmission lines for this project. And neither one of those have anything to do with a new line with GRE or Xcel. They are standalone requests for this project, so that is not a correct statement.

MR. REINARTS: Well, without those lines, actually you cannot build your wind plant.

MR. JOHNSON: You're right. There are very large projects that the CapX program throughout the entire state and the Upper Midwest that are meant --

MR. REINARTS: In order to --

MR. JOHNSON: Excuse me for a second, let me finish. That are meant to address reliability issues of the overall transmission system. And that's where the utilities involved -- I used to work with a utility until about a year ago, and I can tell you that reliability and safety is very key

to the overall transmission system. So that's the primary driver for a lot of this transmission.

And in terms of a specific project like we're here talking about tonight, it's the transmission that's needed just to connect that project to the grid at large, is what we're talking about.

MR. REINARTS: That's correct. But your interconnection agreement with MISO requires these additional lines to be built in order for you to deliver your energy to Great River Energy.

MR. JOHNSON: That is yet to be determined. Some of those upgrades are very minimal and they do not require transmission lines. They require cap banks or other very low-cost kinds of improvements. And there are other projects that require very substantial upgrades, you're correct.

But that has not been defined yet for this project. There is a wide range of solutions that MISO can require for any project to be interconnected, that is true.

Another comment I wanted to make in terms of gag orders is that RES Americas does not have gag orders in its agreements nor does it promote such. I just wanted to be clear on that, that is not how

we do business.

MS. BJORKLUND: Thank you, Paul.

There is a gentleman over here who's had a question for a while.

MR. HORBEI: My name's Tim Horbei, H-O-R-B-E-I, and I have a question with that transmission project. It runs on top of the proposed western route of the Xcel Energy project, so you're saying that you're going to send the power down one direction to the substation and then back up on totally separate lines, separate poles, so everyone along that route will have two sets of high transmission power lines?

MS. BJORKLUND: Okay. I'm going to attempt to answer this.

MR. HARTMAN: I think I can give you a partial answer, I'll have RES answer it also. They've had some discussion with Xcel about putting their line on some of the same structures that Xcel would put their line on. Again, I don't know the details of it.

Paul or Joe?

MR. HORBEI: So first you say it's a totally separate project and then now you're saying you're working with Xcel.

MS. BJORKLUND: No. No.

MR. HARTMAN: No. I'm not saying that. What I'm saying is that there two different transmission lines. The companies, recognizing that, are trying to work with one another to see if they can build both transmission lines on the same structures through a sharing agreement, so there will only be one set of poles rather than two separate poles. For what distance that is, I don't know, but I'll let RES answer that.

MR. JOHNSON: At this point, we are giving consideration to a very short segment of our north route, it's about a mile and a half long along 680th Avenue. And because of the preexisting request that went in early last fall by Xcel for a 161 kV line that had various routes proposed in that permit, their preferred route goes along 680th Avenue straight south because they want to get to the Pleasant Valley substation where Great River Energy has its gas-fired power plant. So for one very short section of one and a half miles, that parallels the route that we're proposing for the north route.

A couple things about that -- actually, several things. One, if you were to do that, we

could put higher poles, fewer poles in that area so we'll actually end up with less poles than if we ran two separate lines or even individual lines down that route.

Another one is that because it's higher poles we can span in such a way as to avoid any visibility or very limited visibility of those poles in front of the homesteads along that route. So it gives us more flexibility for placing the poles in a location that is not right in front of someone's house, but gets it out of view. Plus, being higher structures, probably another ten to 15 feet higher, those conductors will be further out of view and higher as well. So that's something we are giving consideration to.

Plus, the right-of-way required is no different than what we initially proposed for our line, 80 feet wide, and that's plus or minus 40 feet on either side. And that's dictated by the National Electric Safety Code. So by putting a circuit on one side that's ours, the proposed 138 kV line, and Xcel for that one short section of one and a half miles, putting their circuit on the other side, you don't need any more than what we initially proposed for one line, which is 80-feet-wide right-of-way.

And a lot of that is going to be right along the side or whatever the safest distance is we can get to within the right-of-way of that township road, 680th Avenue.

So it minimizes -- as opposed to having to go an alternate route and put two separate lines in that are going to take a lot more area and probably add, I would think, if my recollection is correct, about eight to ten miles of additional line, we can now solve that by sharing this one and a half miles of corridor. So that's something we're thinking about.

MS. BJORKLUND: Thank you.

Other comments or issues you think should be included as part of the record as we move forward in the regulatory project?

Way in the back -- oh, and right over here.

MS. WEBER: My name is Deja Weber, that's D-E-J-A, and I live on 670th Avenue. My worry here is not about some of the issues that have been raised, but I live out here, you don't, he doesn't. I have to live with these turbines.

I stepped out on my deck the other night and all I could hear was a loud hum. I moved from

St. Paul to the middle of the country so that I wouldn't have to deal with the interstate in my back yard, so that I could raise my children here where I think it has a higher quality of life and where I didn't have to worry about the electrical power lines going through my back yard.

Now, I moved here before the wind turbines came and now you're telling me they're going to follow me here, and say I have to suck it up and that I just need to go with the flow because they're catching up with me here.

So my issue is this: They're ugly, they make noise, they blink at night, and there are power lines that we need to be worried about. I am a small landowner. I only have 20 acres, so the farmers who own the thousands of acres around me are the ones making the decisions about if the turbines go here. What about us? It affects my property value as well as my quality of life.

MS. BJORKLUND: Yes. Thank you so much for your comments. This is exactly the -- these are exactly the type of issues we're going to look at. And this is not a predetermined process, this is an open process. You have a lot of opportunity to comment, this is one of them.

We take all your comments into consideration and we don't know what the outcome is going to be.

MS. WEBER: Well, you said there were only three complaints before, but I didn't know where to send my complaints. So where do I send it and how do I find people who care and want to send them with me?

MS. BJORKLUND: Yes. There is 1-800 -- am I on the mic? Okay. Now I am. There is a 1-800 number.

Larry, do you even know that number?

MR. HARTMAN: It's on my business card, which I ran out of. If I can't find a card with it on, I will find a way of getting it to you, if you give me your phone number or e-mail address.

MS. WEBER: (Nods head.)

MS. BJORKLUND: I think there was somebody else in the back who had a comment, too. Actually, there's one in the front -- two in the front, two in the back.

MR. CHRISTIAN: I'm Jim Christian. And I was wondering, are these manufactured in the United States or overseas?

MS. BJORKLUND: The GE turbine is

manufactured in the United States. The Siemens does have a plant in Iowa that's pretty new. I don't know specifically where these turbines are going to be coming from. I don't know if RES Americas have nailed it down, but there are -- both turbines under consideration have plants in the United States.

MR. CHRISTIAN: Good Morning America had an article on it a while back and they say like 80 percent of this stuff has come from China, and that doesn't really help us a lot.

MS. BJORKLUND: Yeah. Some of it is, and -- but a lot of it is manufactured here in the United States as well.

MR. CHRISTIAN: Thank you.

UNIDENTIFIED: Siemens is German.

MS. BJORKLUND: They are German, but they do have plants -- it's not unlike a car manufacturer where, you know, the car might be based in a different country but they have plants here where they're manufacturing the cars in the United States or they have parts coming in from a different area.

Yeah. So they have -- different components perhaps might be coming in from different parts of the world. It's, in my opinion, similar to cars. But there are plants in the United States,

there are -- I don't think it's working, is this on? It's not.

MR. HENDRICKS: My name is Mark Hendricks.

Who keeps the developer accountable for the location of these turbines to the homes? Who's making sure these are located the specified distance that they're supposed to be?

MS. BJORKLUND: That would be our staff.

MR. HENDRICKS: You're coming down here at every placement of every turbine to check the footage, you're pulling the tape on these?

MS. BJORKLUND: Larry, do you want to take that one?

MR. HENDRICKS: And can someone dispute the location of the turbine once it is sited? If it is too close, how would they do that?

MR. HARTMAN: A multi-part question; multi-part answer. Typically, if a permit is issued -- once a permit is issued, before they build, we have a preconstruction meeting and we get all the proposed plans for the project.

Just recently, a while ago, I had plans that showed the noise profiling, it showed the setback from all the homes on aerial photos with

1 noise contour lines, elevation lines, and the
2 three-by-five wind access buffer on it, also.
3 So we asked the companies to demonstrate
4 compliance with the setbacks from the permit at the
5 preconstruction meeting or before. Typically, and I
6 can't speak for RES, it's been my experience that
7 the developers will generally work with the
8 landowners on final turbine location.
9 If there is an issue, again, it's not to
10 say it's going to be moved 500 feet, maybe 30, 40
11 depending. But, again, I think I'll let RES respond
12 to that as to how they handle that themselves.
13 And before I finish, I'd like to say over
14 the years, and if you do this long enough you try to
15 get a little wiser. We've had a number of wind
16 farms that have been sold. A lot of times when I
17 maybe work with a developer I work with a group of
18 people in the permitting phase. Construction, a
19 different group of people. Sometimes A doesn't tell
20 B and then the operational people are also
21 different.
22 What we've done is we now have a
23 preconstruction meeting. We also have a
24 preoperation meeting so that the compliance
25 guidelines are established so there's an

institutional memory. So if the project's sold, the next person knows what the requirements are.

So we are trying to kind of close what might be perceived as loopholes to provide for additional accountability.

MR. HENDRICKS: Is that in the contract or the --

MR. HARTMAN: It's in our permit.

MR. HENDRICKS: Yeah.

MR. HARTMAN: I don't care about the contract, they go by the conditions in our site permit.

Now, the question about the easement, I'll let somebody from RES address that. We don't -- we aren't involved with the review of the easement agreements.

MR. JOHNSON: In terms of the location, complying with setbacks and so forth, we are engaged in doing what they call an ALTA survey, which is to go out and verify by survey the actual property lines, and then to do an exact survey distance for setback purposes as well as from occupied dwellings.

So it's not an estimate, it's an actual survey measurement that we do. And we do that as a company because we need to do that to confirm for

1 our construction planning, which RES -- as Joe
2 mentioned earlier, we will be constructing and
3 overseeing the construction of this project.
4 So based on survey information that is
5 exact and checked, and we invested in a local
6 consultant here out of Rochester is doing that for
7 us and they know the site quite closely. And then
8 our construction crew will use that to determine the
9 planning to make sure we are in compliance with what
10 we say we're going to do in terms of the setback
11 requirements for permit as well as the requirements
12 of our easement agreements with landowners.
13 MR. HARTMAN: I might add that our permit
14 requires that all those documents be filed with the
15 eDocketing system, so they'll all be available
16 online if that time comes. One of the problems with
17 the survey, the files tend to be so large they're
18 difficult to download, but we require that file size
19 be less than ten megabytes on eDockets.
20 So, you know, we'll work on that. And
21 eDocket, I guess, gets better as we go forward, but
22 all that documentation is eFiled on line and
23 available for anybody that wants to look at it.
24 MS. BJORKLUND: Yes. And the information
25 on how to use eDockets is in the notice that went

1 out as well. So there's instructions on how to use
2 that and to get that information.
3 You also, once again, can be put on our
4 mailing list and will be notified of such things.
5 MR. PETERSON: Yeah. Wayne Peterson
6 here. I have a question and a little point I'd like
7 to make here. Some of us currently live right in
8 the vicinity of the wind turbines that -- in a
9 current farm here going already.
10 UNIDENTIFIED: It's hard to hear you.
11 MR. PETERSON: I'm sorry. Yeah. Some of
12 us currently live in an operating wind turbine farm
13 here, and we are experiencing noises, shadow
14 flicker, and some other health issues periodically.
15 What assurances do you have to prevent similar
16 issues in your current project?
17 And a comment I would like to make here
18 also, I hope that those of you who may be
19 considering voluntarily participating in this
20 project will please think long and think hard,
21 taking into all consideration, including your
22 neighbors, before signing any long-term contracts.
23 EnXco's John Zimmerman, he's the manager
24 of Deerfield Wind Project in Vermont, he probably
25 summed it up best during a meeting in Lowell,

Vermont, that wind turbines do not make good neighbors.

MS. BJORKLUND: Well, thank you so much for your comments. Those comments are -- you know, it's something we consider as we move forward in this regulatory process. You know, we want to site these responsibly, and that's what we're tasked with, so.

Others comments?

We have one in the middle and one over on the side there (indicating).

MR. MACHIN: Todd Machin, again. If I read their certificate of need correctly, they're asking for exemption from some items normally required by a regular utility.

MS. BJORKLUND: Yes.

MR. MACHIN: And one of those exemptions, they state quite frequently because of the Minnesota renewable energy standard that it will allow Minnesota utilities to meet that standard. But they don't have a PPA yet.

MS. BJORKLUND: Yes.

MR. MACHIN: And they are negotiating with GRE, maybe, but they can sell this to wherever they want, in whatever part of the country.

MS. BJORKLUND: Yes.

MR. MACHIN: They're going to get the certificate of need potentially before they have a PPA that they just asked for exemptions for.

MS. BJORKLUND: Well, the exemptions that are typically given to wind developers in the certificate of need process are things they cannot answer because they are not a utility. There is information that only utilities possess, wind developers don't possess, they simply cannot answer.

The statute and the rules were developed in the '70s before wind farms ever came into place, and so they were developed for utilities. And they don't quite fit with this process, and that's why typically wind developers seek those exemptions.

And in regards to your point about the renewable energy standard and need, and there is something in statute where if they do have a PPA with a Minnesota utility, then they can be exempt from certificate of need if they get a determination from the Public Utilities Commission that, yes, this does meet renewable energy, they don't have to go through the certificate of need process.

That is not the case here, that is why they're going through the certificate of need. So

that is the purpose, to determine whether this is needed. In regard to, you know, building the project, a permit condition for the site permit is they have to an enforceable mechanism in which to sell the power, so it either has to be a PPA or some other enforceable mechanism or they cannot start construction.

MR. MACHIN: Okay. Another question. There's a number of potential CBED projects in this area. How does the size of this privately-owned project impact the ability of the public people to embark on this endeavor? So municipal utilities, there's a lot of wind utilities around here that would be interested in doing this, but because of the size of this project they're clearly prevented from that.

MS. BJORKLUND: Well, as you know, if you're familiar with the CBED -- community-based energy development -- legislation that is to promote the -- that is to promote local -- locally -- I want to word this carefully because the law has changed a bit since it was first passed. They're wind projects that have direct local benefits that have to meet a certain threshold.

That is certainly not to say you can't

have big wind developers putting in big projects that are non-CBED and CBED, and to that end, too, there is not a size threshold to be CBED, it's all about community benefits in CBED.

But the two -- I think the legislature and vision can coexist. Certainly with the renewable energy standard there's a need for a lot of wind in Minnesota.

I hope that answers your questions, but we will definitely have your comment as part of the record and consider those as we move forward with this process.

Yes.

MR. GOSSMAN: Joe Gossman. I'm just kind of curious as far as with the distance of the setback, where does the 1,500 come in and why is that a magic number? Does that mean that we're not going to get any shadow flicker, we won't hear any noise or any of that?

MS. BJORKLUND: Well, they do have to meet the noise standard.

MR. GOSSMAN: What is the noise standard as far as -- is it measured in feet?

MS. BJORKLUND: It can be measured per feet depending on the turbine manufacturer. I

1 believe in this case 1,500 feet would likely cover
2 the noise standard.
3 MR. GOSSMAN: So at 1,500 feet from my
4 house, I will not be able to hear it?
5 MS. BJORKLUND: Well, you would not -- I
6 can't say you would not be able to hear it, I can
7 say it would not be violating the noise standard set
8 by the state.
9 MR. GOSSMAN: Okay. And then as far
10 as -- does that 1,500 feet, like the setting of the
11 turbines, do they set those in a certain situation
12 or whatever to minimize shadow flicker on a person's
13 place, or do they simulate a program that would show
14 the shadow flicker that you're going to get across
15 your place?
16 MS. BJORKLUND: Well, that's a really
17 good comment and question because, again, as part of
18 this public record they will be looking at this and
19 if a lot people are concerned with flicker, we might
20 go ahead and ask the applicant to provide more
21 information on their flicker analysis so we can
22 determine these things.
23 MR. GOSSMAN: And then as far as the
24 shadow flicker on the roads -- because I know I
25 drive through it every day coming in and out,

depends on the time of the day. The shadow flicker on the road makes me sort of nauseous at the angle it crosses the road in front of my car, personally.

And then also as far as the distance to the road as far as the ice sheen or the ice discharge from the blade, they've got to get ice on them; do they not?

MS. BJORKLUND: They can ice up.

MR. GOSSMAN: And then when they do start at a certain speed, how far can that ice go?

MS. BJORKLUND: Well, that's why we have the 250-foot required setback from all roads, to address that issue. And at this point, that's felt that that's an adequate distance to prevent ice throw on the roads.

MR. GOSSMAN: And then as far as property reclassification, like now everybody's property is like zoned on ag base, will that property be reclassified as commercial?

MS. BJORKLUND: That's something that we can't answer. I mean, that's something that the counties would have to discuss with you -- can discuss with you and you can bring it up with the counties. And the counties are more than -- they're more than welcome and we encourage them to

1 participate in this process as well.
2 MR. GOSSMAN: And then the distance of
3 right-of-way road on your property, I mean, if the
4 turbine's 1,500 feet, what's the distance the
5 right-of-way road has to be from our property line?
6 MS. BJORKLUND: The right-of-way road
7 from your property line?
8 MR. GOSSMAN: To access the wind turbine.
9 MS. BJORKLUND: Can you repeat that?
10 MR. GOSSMAN: The distance -- the
11 right-of-way road that they put in -- the access
12 road -- I guess, sorry, the access road that they
13 have to get to your turbine, what is the distance
14 that has to be from your property?
15 MS. BJORKLUND: That -- I think that
16 that's worked out in the siting process and worked
17 out with the applicant.
18 Larry, do you have anything to add on
19 that?
20 MR. HARTMAN: Again, I'm trying to
21 envision your situation. If you're an adjacent
22 landowner, the question is how close can the road be
23 to your property?
24 MR. GOSSMAN: Yeah.
25 MR. HARTMAN: I'm assuming we don't have

any setbacks on access roads. Typically, you know, again, as I mentioned earlier, sometimes the counties might prohibit or limit the number of driveway cuts on a given mile of road, which might determine where it is.

I know some county engineers have determined they'd like the access road at a different point in case they have plans to widen the roads, haul pigs on it or something else. So, you know, again, I don't know that there's a good answer, there's not a set number in feet that I'm aware of.

Typically, I don't think you're going to find, unless landowners agree that -- participating landowners, maybe you want to split where the road is, but I'm thinking developers might prefer to have it on one side versus the other side versus, you know, encumbering two landowners with encumbrances on their abstract or title.

MR. GOSSMAN: So they could potentially run it right by my -- right on my property line, that's all I'm asking.

MR. HARTMAN: Well, it depends on where the turbine is and where they're going to -- how they're going to access the turbine. It depends if

there are other turbines either upwind or downwind as to where that road comes in. If you've got isolated turbines, you might have, you know, isolated access roads. If you have strings of turbines, you'd probably have one ingress and one egress along that string of turbines. And the turbines will typically be offset or off-pitch from the roads just for efficiency's sake and moving equipment.

Did you have an answer regarding roads? And, again, I think that's the first time I've ever had that question. So I don't have a better answer and again, it's never been raised as an issue.

Paul or Joe, do you have a way you deal with that as a company?

MR. JOHNSON: Well, I think Larry kind of alluded to a couple of things. When we drove the site last August, we found where the actual field access points were and we tried to capitalize on that as well as recognizable roads that were on section lines or fence lines. And so we try to identify areas that would be more suitable or more likely to actually access the locations where the proposed turbine sites were.

In the course of doing that, we

eliminated probably a couple dozen access points that would be new access points and replaced those with existing field access locations. And we reduced the amount of roads by about ten to 12 miles because we looked at better ways to optimize access. And consistent with what people were saying here, is that if you have a broken string that's going east or west, we have six or seven turbines of the lank (phonetic) area and going all the way across, you can actually go all the across a section or two and just have basically an east or westerly road as opposed to just going in and then coming back out. That's more efficient.

We try to limit the amount of onesies and twosies, that's how we refer to it, because it's very expensive to put roads in for just one or two turbines in one area and it creates a lot more disruption, so we tried to eliminate that as much as we could, which, again, as I think with some people you talked to here today from RES, we're looking at ways to further optimize and improve the efficiency of our layout. And once we center on a given turbine, that will help us even further, if that helps you.

MR. HARTMAN: Paul mentioned a point I

want to raise, too, and this is a note of caution for everybody here. I hear the term fence line. And a lot of times people, depending on how long that fence has been there, a lot of people think the fence line might be on the property line. That's not always the case. And oftentimes when you do a survey you find out that maybe the fence line is on your property, your neighbor's property, and they've been farming your land or their land or vice versa.

So that could be an issue. If you aren't sure where your property line is versus the fence line, again, that's the type of thing that could show up in a survey, and then it's kind of late for it to come to light. So, just as a caution, you folks be aware of the distinction between fence line versus property line because they're not synonymous in all cases.

You raised a question about icing, also. Typically, icing hasn't been a major problem in Minnesota. It tends to be more a glaze icing or a light icing. Modern turbines aren't designed to operate or function when they're loaded down with ice so they typically shut down.

For example, I was at a presentation a couple of weeks ago, and for the Grand Meadow wind

farm I think they had 11 days of icing, it was either this year or last year, which is kind of a higher number in places like Ontario or down in Iowa, they get more icing than we typically get here and, again, it would be a lighter, glaze icing.

So when the turbines stop and they start up they tend to pitch and yaw a little bit, so that tends to drop the ice. Years ago, I know some of the turbines didn't function that way. I remember one day I was on Buffalo Ridge and the workers had parked their pickup truck underneath, and when they came out of the turbine the cab was crushed because a large chunk of ice had fallen onto it.

So, again, when there's icy conditions, typically workers don't go into the area, and typically they're far enough way from where people are that icing shouldn't be a problem. Most of your glaze icing, your light icing might go a couple hundred feet and it's going kind of fracture into small, little, tiny, tiny, tiny pieces.

We just haven't had much experience with new turbines as to where icing has been a major problem. But if it is, they don't function or operate because of the load restrictions, or at least on the blades in terms of loads.

Yes.

MR. NORD: My name is Nathan Nord.

MS. BJORKLUND: What was your name?

MR. NORD: Nathan Nord. Just to say, I'm for wind energy. I live out here and I'm worried about the impact, too. I've been in the electrical field for a long time, 18 years. 15 years ago we were being told by our inspectors that we're going to have an electricity shortage in the state, we need new sources of electricity.

With that being said, may I suggest to RES that a lot of these promises, like time frames for the tiles to be fixed, time frame for the paperwork to be back if a landowner wants to make improvements, time frame for roads to be repaired, setbacks, all that kind of stuff, be put into maybe one customer satisfaction type deal, in writing. Because I'm sure you guys are all good guys, but I know these people down here. I grew up in southeast Minnesota. Words, promises, you know, they want to see it in writing. That maybe relieves some of the anxiety people have with this project.

And the one thing I want to say, I've heard all the nightmare stories about the other wind projects. Like I said, I grew up in southeast

Minnesota. Please, please, please, don't try to work around these people because these people will catch everything, and just work with us. Work with the people and don't try nothing slippery and everything will go good and you'll get a good project.

Good luck.

MS. BJORKLUND: Thank you for your comments.

Any other questions or comments? Going once -- oh, one in the first row here (indicating).

MR. HARTMAN: Where?

MS. BJORKLUND: The first row, in the blue shirt.

MR. HORNING: Glen Horning. What, if any, are the setbacks for livestock?

MS. BJORKLUND: I don't believe that was addressed in the site permit -- I mean the site application, excuse me. And that's something that we can consider in developing the draft site permit, that's exactly the type of feedback we're looking for and issues to consider.

I don't know if RES Americas wants to comment on that. Otherwise, that's something we could look at. I don't know what type of evidence

is out there.

MR. HORNING: So there is no setback for livestock, that's not taken into consideration?

MS. BJORKLUND: I do not believe it was part of the application.

Correct, Paul?

MR. JOHNSON: No setback that I know of.

MS. BJORKLUND: No. No. And I don't know if it's ever happened before. Larry probably has the institutional history of that.

MR. HARTMAN: I do. I'm not aware of any setbacks that we've had. Now, when you say livestock, it depends on what part of the state you're in. I know out in Buffalo Ridge livestock for a lot of people was grazing cattle. Obviously, the cattle could graze around the wind turbines with no deleterious effects to my knowledge, nor have I heard complaints from landowners about that.

If you're talking about confined livestock, whether it be poultry, pigs, you know, something else, we haven't had setbacks. In fact, I think that's the first time I've ever heard that question, so congratulations.

Was there a certain livestock you're concerned about?

MR. HORNING: Just curious.

MR. NASHLE: What happens if somebody builds a barn and you guys put up all these wind turbines and then somebody wants to build a barn or expand, what kind of hoops do you have to jump through to be able to build?

MS. BJORKLUND: Could you state your name for the record?

MR. NASHLE: Shane Nashle (phonetic).

MS. BJORKLUND: Okay. Typically if you want to construct something after the wind turbines are put up, it's part of the -- it's dealt with in the -- in the agreement of what steps you need to take and what you need to do.

MR. NASHLE: So, I mean, as a young person or whoever is on their own, who do they have to contact in order to -- I mean, we're obviously -- each person is an individual trying to get ahold of some big company to get an answer to build something.

MS. BJORKLUND: Yes. Well, I think this was addressed earlier, too, and they said if you needed to make an alteration to your property and you have a turbine on your property and have an easement on your property, they would do their best

to respond in a couple weeks, within a couple weeks at the latest.

MR. HARTMAN: Coming back to the question on livestock, we've had this as a standard condition in our permit for years and it's primarily because of grazing cattle. Whereby some companies provide gates, other companies don't. Where you do have cattle and you need a gate, you're provided access to that gate with your own key in case it needs to be locked. It doesn't have to be locked. We also provide for continuity in electric fence if there's a gate there, so that there wouldn't be any disruption to an electrical fence if you're keeping cattle in.

MS. BJORKLUND: I think there was a question --

MR. BAMLET: I'm Bill Bamlet. I heard some talk of setbacks for roads and setbacks for structures and potentially planning a structure on your property that you have an easement. What I didn't think I heard what the setback was for an adjacent property, though.

MS. BJORKLUND: The adjacent property, they have to do a three-by-five rotor diameter setback. So typically it's usually five rotor

diameters from the property line.

MR. GOSSMAN: So that could be less than the potential 500 feet to a building?

MS. BJORKLUND: No. No, no, no. Oh, no. It can't be that.

MR. GOSSMAN: I don't know what the rotor diameter is.

MS. BJORKLUND: Yeah. The rotor diameter is for the GE -- can you help me out on the stats and what the rotor diameter is for the GE and the Siemens, Paul?

MR. JOHNSON: It's about 270 and 310.

MS. BJORKLUND: 270 and 310, and multiply that by five. So there are definitely setbacks to nonparticipating property owners. It's certainly something we address in the rules and it's certainly something we address in the permit, most definitely.

Any other questions?

Do you have a question, sir?

MR. GOSSMAN: Yeah, Joe Gossman. What the gentleman was talking about machine sheds, I kind of had talked earlier about the whole planting trees --

UNIDENTIFIED: I can't hear you.

MR. GOSSMAN: Could we get denied a permit to build a machine shed because of a wind turbine in the area?

MS. BJORKLUND: That would be the county that would be issuing that permit for you, so that's something -- a process we're not involved with.

MR. GOSSMAN: So --

MR. HARTMAN: I think the question is would RES deny him the opportunity to build a machine shed.

MS. BJORKLUND: Oh.

MR. JOHNSON: In the process of securing an option easement agreement, in that agreement it's defined what the setback of the turbine site needs to be. And so you'll know that very early on in the process when you're planning where to put structures, barns, sheds, whatever you want to do, so you'll know that upfront before you sign the agreement.

MR. GOSSMAN: So that wouldn't have any effect on somebody that -- a landowner that doesn't have a turbine going on their property. All right.

MS. BJORKLUND: Okay. Thank you.

Other questions?

UNIDENTIFIED: How close are you going to

be putting the towers if you get, I don't know, the wind rights, I guess, if you get a nice ridge line, how close would you be putting tower to tower?

MS. BJORKLUND: Tower by tower is a three-by-five rotor diameter spacing, and depending on the prevailing winds and nonprevailing winds.

UNIDENTIFIED: And tower manufacturer?

MS. BJORKLUND: Yeah.

UNIDENTIFIED: If you put in a smaller tower, they can --

MS. BJORKLUND: They can be closer together, obviously, because the rotor diameter is smaller.

Other questions, comments about the process, anything?

Well, I want to thank you all for your time. This was very important. Again, there will be another -- you have time to comment until the 15th on this particular phase here of the permitting process. You will have additional time to comment on the site permit, once we actually -- if the draft site permit is issued by the PUC then you'll have ample time to comment on that.

There will be another public meeting on the site permit and a public hearing on the

1 certificate of need. Chances are those will be the
2 same meetings at the same time, just to save time.
3 But there is plenty of opportunity to talk, we're
4 just at the beginning of the process right now.
5 So, thank you very much.
6 (Public comment concluded.)
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