ĺ	
1	PUBLIC INFORMATION MEETING - 09-553
2	Webex - August 6, 2025 - 6:00 p.m.
3	BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION
4	
5	
6	
7	
8	In the Matter of the Site Permit for Elm Creek Wind II,
9	LLC, 150 MW Project in Martin and Jackson Counties
10	
11	
12	MDIIG DOGMER NO. TD 6700/MG 00 FF2
13	MPUC DOCKET NO. IP-6728/WS-09-553
14	
15	
16	Meeting held remotely via:
17	Webex and Telephone
18	
19	
20	August 6, 2025
21	
22	
23	
24	
25	COURT REPORTER: Christine Simons, RMR, RPR

1		INDEX	
2	SPEAKER		PAGE
3	Sam Lobby		3
4	Luke Schwitzer		5
5	Rich Davis		15
6	Stacy Kotch Egstad		20
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

MR. SAM LOBBY: Thanks for showing up today, folks. I just wanted to, yeah, cover our meeting tonight, public information meetings on the Elm Creek Wind Project, Docket Number 09-553. I am Sam Lobby with the Minnesota Public Utilities

Commission. I'm an energy planner, and my contact information is below.

So just a quick introduction here, again,
I'm Sam Lobby. I will be covering a quick summary
of the review process. Then, next, Luke with
Avangrid will give a description of the proposed
project; then Rich Davis, also with the PUC, will
discuss the environmental review process; and then
we'll cover questions and comments.

So just a real quick background, I won't dig too deep into this since Luke is going to give you more information on the project. The Elm Creek Wind II project was originally granted a permit on February 25th of 2010. Then, on April 1st of 2025, Elm Creek Wind II submitted an application to repower the Elm Creek Wind facility and amend their site permit to increase the facility's efficiency and energy output, as well as to extend the permit term and operational life of the facility.

The proposed changes will consist of

retrofitting existing equipment, and will not include changes to the turbine locations, the MET tower, or the substation. Requesting changes include -- requested changes include replacing rotors, replacing turbine nacelles and the interior elements, increasing the hub height of existing turbines from 78 to 86 meters, increasing tip height of existing turbines from 127.5 to 146 meters, adjust turbine output for existing turbines from 2.4 to 2.2 megawatts, and decrease the total nameplate capacity below the permitted 150 megawatts.

So the main considerations for the Commission are under Minnesota Statute 216F.03, the siting of large wind energy conversion system must be done in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources.

Minnesota Rule 7854.1300 Subp. 2 provides that the Commission may amend a site permit for a large wind energy conversion system at any time if the Commission has good cause to do so. And under Minnesota Statute 216F.04, the Commission may place conditions in a permit, and may deny, modify, suspend, or revoke a permit.

So just a real quick review of the

1	timeline, we have the filing came in on April 1st
2	of this year. Rich with, formerly, EERA provided
3	comments on application completeness and a proposed
4	draft site permit on June 20th. Then, yesterday we
5	had our in-person public information meeting in
6	Jackson. Today is our virtual meeting.
7	And the comment period for this will
8	close on August 20th, so there's still plenty of
9	time to get in written comments. Then, on September
10	5th, Rich will submit comments on the site permit
11	amendment, and the Commission will consider the site
12	permit sometime at the end of the year, quarter 4 of
13	2025.
14	So just real quick, there's my contact
15	information.
16	And next up is Luke with the company, and
17	you can just tell me when to click ahead.
18	MR. LUKE SCHWITZER: Yeah, perfect.
19	Thank you, Sam.
20	And, yeah, good evening. My name is Luke
21	Schwitzer. I am a lead developer with Avangrid
22	Power. We appreciate the chance to highlight some
23	of our plans at the Elm Creek II wind farm.
24	Yeah, next slide. Thank you.
25	So before we get into the project

details, I just want to provide a company overview for folks that might be unfamiliar. So Avangrid Power, we are the third largest renewable energy owner and operator in the States. With that, it truly represents a presence of wind and solar projects nationwide across 22 different states.

And narrowing in closer to the Midwest in particular, you know, it's really a place where we have specifically a large presence in wind farms. So you can see numbers in the lower left. Some of them in the -- Illinois, in particular, might be outdated as we've had newer projects go live. But, yeah, basically the Midwest is home to a lot of wind and has been for a long time with the company.

Yeah, you can hit the next slide.

And just zooming in further, right, to Jackson and Martin Counties where Elm Creek II is located. I just wanted to highlight that Avangrid has since been active in these communities for a long time, going back more than 20 years at this point.

So you can see, just at a glance for folks giving context to these projects in the region, we have Elm Creek II located there in yellow, Elm Creek I is in blue, and Trimont to the

north, with some facts here highlighted in the bullet points. So the COD dates that are listed stands for the commercial operation dates. That's when these projects were all respectively placed in service. So you can see Trimont was our first in the region, going live in 2005, and, in fact, this was also repowered in 20- -- or I'm sorry, five years ago, 2020. Elm Creek I followed in 2008, and, of course, talking about Elm Creek II tonight, initially went live in 2010.

Next slide.

So now getting into some of the specifics of what, you know, we're planning and working towards out at Elm Creek II. You know, when we talk about repowering in general, it's really a -- kind of a catchall term that can mean many different things depending on the particular site. You know, whatever the particular company's plans are.

Regardless of what the specifics look like, it's really just -- it's the process of taking existing equipment that's out there and operating, and retrofitting it with newer, more modernized, more efficient equipment.

And so what that means for Avangrid at Elm Creek II specifically is replacing the turbine

blades themselves and replacing the nacelles. So
the nacelle is that piece highlighted in the photo
there. It sits up on top of the tower, and it
houses your generator for each turbine. It has the
drivetrain elements, so on and so forth.

So, again, the scope of work that we're anticipating is replacing that nacelle and components that come with it, as well as the blades themselves, and I'll touch on some of those details here in a little bit.

But I just wanted to highlight, you know, what this does not include is, you know, we are not moving any turbine locations. With a small caveat, we're not really, you know, removing the towers themselves. The roads, O&M building, substation that's out there, transmission lines, they'll all remain and operate as they exist today.

So just to come back to the tower piece, my caveat is in order to make this new equipment work with the towers that are out there and the existing Mitsubishi turbines that exist out there, there is a tower adaptor section that will have to be installed on top of the existing towers.

Once we remove the old nacelle, we'll install the tower adaptor. It's about, we

anticipate, 17 feet tall, and that's really just to make, you know, the components of the existing tower work with the components of the incoming nacelle and details, such as, you know, the bolt pattern, just logistically how to make those two things work. So maybe a lot of detail in there, but all that to say, you know, we are not, you know, tearing down the tower. We're not proposing that. It's just to make the project work.

So those are kind of the details at a glance. I think, you know, it's important to touch on just what this might look like from a temporary construction impact side of things, right? As you might imagine, the repower construction of this is going to look quite a bit different than maybe it would have, right, for greenfield original developments. But at the same time, you know, it's a large energy production site. It will not be an insignificant, you know, construction effort.

So some of the things to highlight, some of the biggest impacts will be right away, you know, crane paths, right? We will be having to walk large all-terrain cranes across the land to not just take down the existing nacelles and blades, but also, obviously, install the incoming retrofitted

equipment.

With that, we'll also need -- if you can picture any of your access roads delivering this equipment, we'll need to widen any of those 90-degree turning radius areas in order to facilitate the much larger blade swing radius when we're bringing in the new and, also, you know, removing the old equipment as well.

Also highlighted here are collector lines section upgrades. So the collector lines, if folks aren't familiar, you know, that's the power lines that are taking power generated from the turbines and routing it to our collector substation.

And we have ran many engineering studies on a lot of this, and we fully anticipate that a lot of the existing collector section runs will be able to work under a repowered scenario. However, there are likely at least a few sections that may need to be supplemented. So we may need to trench in new collector line sections, but, again, in the comparison of a greenfield construction effort, it will not look anything on par with that sort of effort.

And then lastly, and probably maybe most important, talking about our repower is the area

that we'll need for laydown and staging yards. So, you know, this is the area just logistically to make this work from a construction standpoint. We need a lot of space to bring down the old equipment, store it, you know, manage it, do what we need to do with it, and also bring in the new and store it and ready for installation. And, again, just construction vehicles and temporary field offices, all important components, which would really comprise those laydown staging areas as well.

Yeah, next slide.

So getting into more of the specifics, as much of the specifics as we can at this point, there's really -- this is kind of the part of the planning process where there's truly a lot of moving parts. And I want to caveat that any of the final details, really, that we're working towards and understanding what our equipment selection is going to be, what our schedule's going to be, it's all very much subject to change at this point.

But at the same time, we want to, you know, be transparent and share, you know, the best data that we have available today. So that's what this is, and of course, you know, as things are finalized, you know, we'll be communicating those

changes and those final details.

But with that, this is the snapshot of where we're at today. So what we are proposing, again, is replacing these blades, which today exist on a Mitsubishi model, and they're 95-meter blades. And we propose increasing that up to 120-meter blades.

And then if you can picture -- so the tip height is, if you could picture the turbine blade at its highest point of rotation, is that tip height, and we're proposing changing that tip height from currently existing at 418 feet high to 480 feet high. Adjusting the turbine output, so each turbine generator right now, again, the Mitsubishis are rated as 2.4-megawatt generators, and we are proposing adjusting that to 2.2 megawatts each.

I've touched on the collector lines already, and then, lastly, I wanted to touch on kind of a bonus for many folks living in the region that, you know, might be annoyed with the constant blinking lights at night, we will be installing light mitigation. So it's known as ADLS, or aircraft detection lighting system.

Essentially what that means is we'll have a new radar installed. Again, details TBD, but

likely sited at the O&M yard, and that radar would protect the aircraft when it enters or is adjacent to the project area, and at that point it would trigger the lights on the turbine to flash at night. But if no aircraft is detected at the time, your skies remain dark at night. So just with -- we have relationships with many landowners in the area. We know that's kind of a huge bonus to many of those folks.

And then I'm not sure if there's much to highlight in the lower right here on the table, just because there is so much that's to be determined at this point. I just wanted to highlight as much as we can that -- the pre- and post-condition comparison. So there are 62 turbines out there at Elm Creek II today, and we would hope to retrofit, you know, as many of those 62 as possible is our goal.

Again, we talked about turbine height.

What's operating out there today are the Mitsubishi

2.4s, and the proposed solution is up in the air

right now, what would fit the parameters discussed

here.

I've highlighted the tip height changes, and then, yeah, the nameplate capacity. As you can

see on the table there, really it's in the same table. Really that just reflects, we would hope to get as close to where we're at on that generating capacity that we are today. But, again, that's something that we're still working on.

Maybe before our next slide here, I just wanted to touch on as well, working towards supporting just ongoing maintenance of the site and just operation of the site. Installing lifts for our ops, our operations crew, is an important kind of maintenance item for those folks. So that's something that we would look at doing within those existing towers at Elm Creek II as well.

Okay. Next slide.

All right. So, again, the caveat that is subject to change is very much in place when we're talking about schedules at Elm Creek II, but you know, important to discuss it and highlight, maybe if nothing else, what the soonest potential timeline breakdown might look like. So that is very much what this is. It's truly changing on a week-to-week basis here, but it's what we're working towards.

So right away, environmental surveys, obviously permitting work, that's, you know, why we're here tonight, it's ongoing. The PUC

application -- Sam, as you highlighted -- was submitted in April. Looking ahead then towards engineering design, I know that's something, again, that we're working on actively day to day. We would anticipate potentially construction-ready design as soon as the end of this year, December 2025.

And all working towards, you know, when we think about an earliest possible construction start, something like springtime of 2026, May of 2026. That would be our goal, and that would be working towards an earliest possible COD -- again that's the commercial operation date -- by year-end of 2026.

And then, lastly, right, we don't -after a project like this, you know, we're not going
anywhere. We would be back on site, right,
throughout the following year, 2027, for restoration
and reclamation purposes to leave the site as good,
or in better condition, as we found it.

So I think that's all I had. You can hit next slide, but I believe that's just a map, which was really more pertinent for the in-person component. But yeah, thanks, Sam; thanks, Rich. I appreciate the chance to highlight Elm Creek II.

MR. RICH DAVIS: All right. I will try

to keep it quick here. I'm Rich Davis. I'm with the Public Utilities Commission now, in our Energy Infrastructure Permitting Unit, environmental review. And, kind of, our -- I mean, we used to be with the Department of Commerce in EERA, as folks on here know, and we're essentially carrying our same tasks and jobs over as we move over to the Commission.

So we provide technical assistance and environmental review and analysis for the Commissioners. We don't advocate for or against any particular projects. We're just doing objective analysis of the proposed project and potential impacts to human and environmental resources. And our goal is just to help the Commission make an informed decision on the issuance of, in this case, an amended site permit for the repowering.

Next slide.

This is just availability of project information. The top one there is our webpage specific for this project. There's also a submit comment button at the top of that page, and that second link there is for eDockets. You can get to the eDockets full docket and full record also by going through our project page. That's -- it might

save a little bit of headache or a little bit of hassle.

Next slide.

This is a little bit on what we do with the application that comes in. So Elm Creek II came in with a request to amend their site permit. It was an application for that, and that serves as the primary environmental review document for wind projects.

And in that application, it identifies what is being proposed as far as activities for the project and also what potential resource impacts there could be, as well as identifying potential mitigation measures that can be undertaken.

We use that to develop a draft site permit, an amended draft site permit, which we issued, as Sam mentioned, back in June of this year when we were still at Commerce. And we'll take this -- we take the opportunity here to get -- receive comments, and we take that to further develop that amended draft site permit before it will eventually go on to the Commissioners for their final decision.

Next slide.

Public participation, you can obviously

1 provide comments tonight, submit comments in 2 writing. Or online, as I mentioned before, there's a comment tab that will take you through the process 3 on our website. You can e-mail me. 4 That's my mailing address. 5 6 Stacy, I know that you pretty regularly just eFile your own stuff, so I think we're pretty 7 8 well covered for that one. 9 Next slide. 10 Comment period deadline, Wednesday, August 20th, 2025, 4:30 p.m. 11 12 Next slide. Topics to address with comments that 13 are -- that assist us the most or are the most 14 15 helpful as we're trying to nail down the amended draft site permit to take to the Commissioners, just 16 17 should the Commission issue an amended draft site 18 permit for the repowering project? If the site permit amendments are authorized, what additional 19 20 conditions, if any, should the Commission impose for 21 this matter? 22 Next slide. 23 We don't have to worry about speakers tonight, but just some general rules of thumb. 24 25 speaker at a time. We don't got to worry about

1	maintaining respect because I know Sam can mute you
2	if you get a little bit out of control.
3	MR. SAM LOBBY: It doesn't look like we
4	have anybody, so I think we're good on that front
5	anyway.
6	MR. RICH DAVIS: All righty. And I don't
7	know if there's yeah, this is just general
8	information on the project. That's pretty much
9	everything that we've already covered.
10	MR. SAM LOBBY: Oh, Stacy said she might
11	have something to say.
12	MR. RICH DAVIS: I've experienced that
13	before. That's all right. All right.
14	MR. SAM LOBBY: Well, with that, I think
15	we've pretty much covered everything. I will plan
16	on getting the presentation in the record here
17	probably tomorrow so that folks who maybe weren't
18	able to attend are able to at least access it online
19	if they got the notice and they know how to do that.
20	So does anybody have any closing remarks,
21	or does that pretty much do it for us?
22	MR. LUKE SCHWITZER: I think we're okay
23	here in Minneapolis.
24	MR. SAM LOBBY: I've got a hand raised
25	from Stacy. Stacy, I just unmuted you.

1	MS. STACY KOTCH EGSTAD: Can you hear me?
2	MR. SAM LOBBY: Yeah, we can hear you.
3	MS. STACY KOTCH EGSTAD: Awesome. Okay.
4	I just have a question for the group regarding
5	and forgive me for my ignorance, so it's a two-part
6	question. The first part is, understanding that the
7	turbine placement remains the same, does the height
8	difference affect the statewide radio tower system?
9	And if so, have they reached out directly to MnDOT's
10	Statewide Radio Communications office?
11	MR. LUKE SCHWITZER: I'm sorry, was that
12	Stacy?
13	MR. SAM LOBBY: Yes.
14	MR. LUKE SCHWITZER: So, Stacy, we have
15	ran updated beam path studies analyzing the repower,
16	and that's not something that came up in particular.
17	So, you know, there was no conflict with I'm
18	sorry, I forget what you called it, with that
19	particular conflict.
20	MR. SAM LOBBY: It looks like you got
21	muted there, again, Stacy. Sorry about that.
22	MS. STACY KOTCH EGSTAD: Yeah. I think I
23	did it to myself. Thank you.
24	Yeah, the name was the Office of
25	Statewide Radio Communications. They have recently

1	reached out to me and wanted to be made aware of any
2	wind turbine projects or upgrades. So I was just
3	making sure that aside from the Capitol Airspace
4	Group work that you have in your application, that
5	that was taken into consideration.
6	MR. LUKE SCHWITZER: I see, okay. Yeah.
7	We can take note of that and follow up either way,
8	yeah.
9	MS. STACY KOTCH EGSTAD: Okay. Thank
10	you.
11	MR. LUKE SCHWITZER: Yeah, thank you.
12	MR. SAM LOBBY: All righty. With that, I
13	think it sounds like you're good over there in
14	Minneapolis; I think we're good over here in
15	St. Paul; Rich, you're good down south. All righty,
16	I think we're good.
17	MR. RICH DAVIS: I am good.
18	MR. SAM LOBBY: Awesome. Hey, thanks,
19	everybody, for all the work. I really appreciate
20	the coordination with everybody on everything and
21	all your respective roles and the work you did to
22	make all this happen. So thanks, everybody, and
23	have a great night.
24	(Public comment concluded.)
25	

	analyzing (1)	15:19	3:25;4:2,3,4;12:1;	consider (1)
A	20:15	biggest (1)	13:24	5:11
A	annoyed (1)	9:21	changing (2)	consideration (1)
	12:20	bit (6)	12:11;14:21	21:5
able (3)	anticipate (3)	8:10;9:15;17:1,1,4;	click (1)	considerations (1)
10:16;19:18,18	9:1;10:15;15:5	19:2	5:17	4:12
access (2)				
10:3;19:18	anticipating (1)	blade (2)	close (2)	consist (1)
across (2)	8:7	10:6;12:9	5:8;14:3	3:25
6:6;9:23	application (7)	blades (6)	closer (1)	constant (1)
active (1)	3:20;5:3;15:1;17:5,	8:1,8;9:24;12:4,6,7	6:7	12:20
6:19	7,10;21:4	blinking (1)	closing (1)	construction (7)
actively (1)	appreciate (3)	12:21	19:20	9:13,14,19;10:21;
15:4	5:22;15:24;21:19	blue (1)	COD (2)	11:3,7;15:8
activities (1)	April (3)	6:25	7:2;15:11	construction-ready (1)
17:11	3:19;5:1;15:2	bolt (1)	collector (6)	15:5
adaptor (2)	area (4)	9:4	10:9,10,13,16,20;	contact (2)
8:22,25	10:25;11:2;13:3,7	bonus (2)	12:17	3:6;5:14
additional (1)	areas (2)	12:19;13:8	comment (5)	context (1)
18:19	10:5;11:10	breakdown (1)	5:7;16:22;18:3,10;	6:23
address (2)	aside (1)	14:20	21:24	control (1)
18:5,13	21:3	bring (2)	comments (8)	19:2
	assist (1)	11:4,6	3:14;5:3,9,10;	conversion (2)
adjacent (1)	18:14	bringing (1)	17:20;18:1,1,13	4:14,20
13:2	assistance (1)	10:7	Commerce (2)	coordination (1)
adjust (1)	16:9	building (1)	16:5;17:18	21:20
4:9	attend (1)	8:15	commercial (2)	Counties (1)
Adjusting (2)	19:18	bullet (1)	7:3;15:12	6:17
12:13,16	August (2)	7:2	Commission (11)	course (2)
ADLS (1)	5:8;18:11	button (1)		7:9;11:24
12:22			3:6;4:13,19,21,22;	*
advocate (1)	authorized (1)	16:22	5:11;16:2,8,15;18:17,	cover (2)
16:11	18:19	C	$\frac{20}{3}$	3:2,14
affect (1)	availability (1)	C	Commissioners (3)	covered (3)
20:8	16:19		16:11;17:22;18:16	18:8;19:9,15
again (13)	available (1)	called (1)	communicating (1)	covering (1)
3:8;8:6;10:20;11:7;	11:23	20:18	11:25	3:9
12:4,14,25;13:19;	Avangrid (5)	came (3)	Communications (2)	crane (1)
14:4,15;15:3,11;	3:11;5:21;6:2,18;	5:1;17:5;20:16	20:10,25	9:22
20:21	7:24	can (20)	communities (1)	cranes (1)
against (1)	aware (1)	5:17;6:10,15,22;	6:19	9:23
16:11	21:1	7:5,16;10:2;11:13;	company (3)	Creek (17)
ago (1)	away (2)	12:8;13:14,25;15:20;	5:16;6:1,14	3:4,17,20,21;5:23;
7:8	9:21;14:23	16:23;17:14,25;18:4;	company's (1)	6:17,24,25;7:8,9,14,
ahead (2)	Awesome (2)	19:1;20:1,2;21:7	7:18	25;13:16;14:13,17;
	20:3;21:18	capacity (3)	comparison (2)	15:24;17:5
5:17;15:2		4:11;13:25;14:4	10:21;13:15	crew (1)
air (1)	В	Capitol (1)	compatible (1)	14:10
13:21		21:3	4:15	currently (1)
aircraft (3)	back (4)	carrying (1)	completeness (1)	12:12
12:23;13:2,5	6:20;8:18;15:16;	16:6	5:3	12.12
Airspace (1)	17:17		component (1)	D
21:3		case (1)	15:23	ע
all-terrain (1)	background (1)	16:16		JJ- (1)
9:23	3:15	catchall (1)	components (4)	dark (1)
amend (3)	basically (1)	7:16	8:8;9:2,3;11:9	13:6
3:21;4:19;17:6	6:13	cause (1)	comprise (1)	data (1)
amended (5)	basis (1)	4:21	11:9	11:23
16:17;17:16,21;	14:22	caveat (4)	concluded (1)	date (1)
18:15,17	beam (1)	8:13,19;11:16;	21:24	15:12
amendment (1)	20:15	14:15	condition (1)	dates (2)
5:11	below (2)	chance (2)	15:19	7:2,3
amendments (1)	3:7;4:11	5:22;15:24	conditions (2)	Davis (6)
18:19	best (1)	change (2)	4:23;18:20	3:12;15:25;16:1;
10.17	3. 7			
	11:22	11:20:14:16	conflict (2)	19:6.12:21:17
analysis (2) 16:10,13	11:22 better (1)	11:20;14:16 changes (6)	conflict (2) 20:17,19	19:6,12;21:17 day (2)

virtual i ublic flearing	- 0-0-25	1 The second of	T	August 0, 2023
15:4,4	draft (6)	4:1,6,8,9;7:20;8:21,	20:5	16:15
deadline (1)	5:4;17:15,16,21;	23;9:2,24;10:16;	formerly (1)	helpful (1)
18:10	18:16,17	12:12;14:13	5:2	18:15
December (1)	drivetrain (1)	experienced (1)	forth (1)	Hey (1)
15:6	8:5	19:12	8:5	21:18
decision (2)		extend (1)	found (1)	high (2)
16:16;17:23	${f E}$	3:23	15:19	12:12,13
decrease (1)			front (1)	highest (1)
4:10	earliest (2)	${f F}$	19:4	12:10
deep (1)	15:8,11		full (2)	highlight (8)
3:16	eDockets (2)	facilitate (1)	16:24,24	5:22;6:18;8:11;
delivering (1)	16:23,24	10:6	fully (1)	9:20;13:11,13;14:18;
10:3	EERA (2)	facility (2)	10:15	15:24
	5:2;16:5	3:21,24		highlighted (5)
deny (1)			further (2)	
4:23	efficiency (1)	facility's (1)	6:16;17:20	7:1;8:2;10:9;13:24;
Department (1)	3:22	3:22		15:1
16:5	efficient (2)	fact (1)	G	hit (2)
depending (1)	4:17;7:23	7:6		6:15;15:20
7:17	effort (3)	facts (1)	general (3)	home (1)
description (1)	9:19;10:21,23	7:1	7:15;18:24;19:7	6:13
3:11	eFile (1)	familiar (1)	generated (1)	hope (2)
design (2)	18:7	10:11	10:12	13:16;14:2
15:3,5	EGSTAD (4)	far (1)	generating (1)	houses (1)
detail (1)	20:1,3,22;21:9	17:11	14:3	8:4
9:6		farm (1)	generator (2)	hub (1)
	either (1)			
details (7)	21:7	5:23	8:4;12:14	4:6
6:1;8:9;9:4,10;	elements (2)	farms (1)	generators (1)	huge (1)
11:17;12:1,25	4:6;8:5	6:9	12:15	13:8
detected (1)	Elm (17)	February (1)	giving (1)	human (1)
13:5	3:4,17,20,21;5:23;	3:19	6:23	16:14
detection (1)	6:17,24,25;7:8,9,14,	feet (3)	glance (2)	
12:23	25;13:16;14:13,17;	9:1;12:12,12	6:22;9:11	I
determined (1)	15:24;17:5	few (1)	goal (3)	
13:12	else (1)	10:18	13:18;15:10;16:15	identifies (1)
develop (2)	14:19	field (1)	good (9)	17:10
17:15,21	e-mail (1)	11:8	4:21;5:20;15:18;	identifying (1)
developer (1)	18:4	filing (1)	19:4;21:13,14,15,16,	17:13
5:21	end (2)	5:1	17.4,21.13,14,13,10,	ignorance (1)
development (1)	5:12;15:6	final (3)	granted (1)	20:5
4:16	energy (7)	11:16;12:1;17:23	3:18	II (13)
developments (1)	3:6,23;4:14,20;6:3;	finalized (1)	great (1)	3:18,20;5:23;6:17,
9:17	9:18;16:2	11:25	21:23	24;7:9,14,25;13:16;
difference (1)	engineering (2)	first (2)	greenfield (2)	14:13,17;15:24;17:5
20:8	10:14;15:3	7:5;20:6	9:16;10:21	Illinois (1)
different (3)	enters (1)	fit (1)	group (2)	6:11
6:6;7:16;9:15	13:2	13:22	20:4;21:4	imagine (1)
dig (1)	environmental (7)	five (1)	<u> </u>	9:14
3:16	3:13;4:16;14:23;	7:7	H	impact (1)
directly (1)	16:3,10,14;17:8	flash (1)		9:13
20:9	equipment (9)	13:4	hand (1)	
			` '	impacts (3)
discuss (2)	4:1;7:21,23;8:19;	folks (9)	19:24	9:21;16:14;17:12
3:13;14:18	10:1,4,8;11:4,18	3:2;6:2,23;10:10;	happen (1)	important (5)
discussed (1)	Essentially (2)	12:19;13:9;14:11;	21:22	9:11;10:25;11:8;
13:22	12:24;16:6	16:5;19:17	hassle (1)	14:10,18
Docket (2)	evening (1)	follow (1)	17:2	impose (1)
3:4;16:24	5:20	21:7	headache (1)	18:20
document (1)	eventually (1)	followed (1)	17:1	include (4)
17:8	17:22	7:8	hear (2)	4:2,4,4;8:12
done (1)	everybody (3)	following (1)	20:1,2	incoming (2)
4:15	21:19,20,22	15:17	height (8)	9:3,25
down (5)	exist (3)	forget (1)	4:6,7;12:9,10,11;	increase (1)
9:7,24;11:4;18:15;	8:17,21;12:5	20:18	13:19,24;20:7	3:22
21:15	existing (12)	forgive (1)	help (1)	increasing (3)
21.13	CAISHING (12)	Torgive (1)	neih (1)	mereasing (3)
	I	1	1	1

		1	1	
4:6,7;12:6	9:23	Looking (1)	Midwest (2)	10:2,4,18,19;11:1,3,
information (7)	landowners (1)	15:2	6:7,13	5
3:3,7,17;5:5,15;	13:7	looks (1)	might (8)	new (5)
16:20;19:8	large (5)	20:20	6:2,11;9:12,14;	8:19;10:7,19;11:6;
informed (1)	4:14,20;6:9;9:18,22	lot (6)	12:20;14:20;16:25;	12:25
16:16	larger (1)	6:13;9:6;10:15,15;	19:10	newer (2)
Infrastructure (1)	10:6	11:4,15	Minneapolis (2)	6:12;7:22
16:3	largest (1)	lower (2)	19:23;21:14	next (15)
initially (1)	6:3	6:10;13:11	Minnesota (4)	3:10;5:16,24;6:15;
7:10	lastly (3)	Luke (10)	3:5;4:13,18,22	7:11;11:11;14:6,14;
in-person (2)	10:24;12:18;15:14	3:10,16;5:16,18,20;	mitigation (2)	15:21;16:18;17:3,24;
5:5;15:22	laydown (2)	19:22;20:11,14;21:6,	12:22;17:14	18:9,12,22
insignificant (1)	11:1,10	11	Mitsubishi (3)	night (4)
9:19	lead (1)		8:21;12:5;13:20	12:21;13:4,6;21:23
install (2)	5:21	M	Mitsubishis (1)	north (1)
8:25;9:25	least (2)	171	12:14	7:1
installation (1)	10:18;19:18	mailing (1)	MnDOT's (1)	note (1)
		mailing (1)		
11:7	leave (1)	18:5	20:9	21:7
installed (2)	15:18	main (1)	model (1)	notice (1)
8:23;12:25	left (1)	4:12	12:5	19:19
installing (2)	6:10	maintaining (1)	modernized (1)	Number (1)
12:21;14:9	life (1)	19:1	7:22	3:4
interior (1)	3:24	maintenance (2)	modify (1)	numbers (1)
4:5	lifts (1)	14:8,11	4:23	6:10
into (5)	14:9	making (1)	more (6)	
3:16;5:25;7:12;	light (1)	21:3	3:17;6:20;7:22,22;	O
11:12;21:5	12:22	manage (1)	11:12;15:22	
introduction (1)	lighting (1)	11:5	most (3)	O&M (2)
3:8	12:23	manner (1)	10:24;18:14,14	8:15;13:1
issuance (1)	lights (2)	4:15	move (1)	objective (1)
16:16	12:21;13:4		16:7	16:12
		many (6)		
issue (1)	likely (2)	7:16;10:14;12:19;	moving (2)	obviously (3)
18:17	10:18;13:1	13:7,8,17	8:13;11:15	9:25;14:24;17:25
issued (1)	line (1)	map (1)	much (11)	office (2)
17:17	10:20	15:21	10:6;11:13,20;	20:10,24
item (1)	lines (5)	Martin (1)	13:10,12,13;14:16,20;	offices (1)
14:11	8:16;10:9,10,11;	6:17	19:8,15,21	11:8
	12:17	matter (1)	must (1)	old (3)
J	link (1)	18:21	4:14	8:24;10:8;11:4
	16:23	may (6)	mute (1)	Once (1)
Jackson (2)	listed (1)	4:19,22,23;10:18,	19:1	8:24
5:6;6:17	7:2	19;15:9	muted (1)	one (3)
jobs (1)	little (5)	maybe (6)	20:21	16:20;18:8,24
16:7	8:10;17:1,1,4;19:2	9:6,15;10:24;14:6,	myself (1)	ongoing (2)
June (2)	live (3)	18;19:17	20:23	14:8,25
5:4;17:17	6:12;7:6,10	mean (2)	20.23	online (2)
J.+,1/.1/	living (1)	7:16;16:4	N	18:2;19:18
K	12:19		1.4	
V		means (2)	manalla (4)	operate (1)
1 (1)	LOBBY (12)	7:24;12:24	nacelle (4)	8:17
keep (1)	3:1,5,9;19:3,10,14,	measures (1)	8:2,7,24;9:3	operating (2)
16:1	24;20:2,13,20;21:12,	17:14	nacelles (3)	7:21;13:20
kind (7)	18	meeting (3)	4:5;8:1;9:24	operation (3)
7:15;9:10;11:14;	located (2)	3:3;5:5,6	nail (1)	7:3;14:9;15:12
12:18;13:8;14:10;	6:18,24	meetings (1)	18:15	operational (1)
16:4	locations (2)	3:3	name (2)	3:24
known (1)	4:2;8:13	megawatts (3)	5:20;20:24	operations (1)
12:22	logistically (2)	4:10,11;12:16	nameplate (2)	14:10
KOTCH (4)	9:5;11:2	mentioned (2)	4:10;13:25	operator (1)
20:1,3,22;21:9	long (2)	17:17;18:2	narrowing (1)	6:4
,=,==,==.	6:14,20	MET (1)	6:7	opportunity (1)
\mathbf{L}	look (7)	4:2	nationwide (1)	17:19
L	7:19;9:12,15;10:22;	meters (2)	6:6	ops (1)
land (1)	14:12,20;19:3	4:7,8	need (7)	14:10
land (1)	14.12,20,17.3	7.7,0	need (7)	17.10

· tum I mone incuring				
	pertinent (1)	9:9;13:3;15:15;16:13,	receive (1)	13:16
8:19;10:5	15:22	19,21,25;17:12;	17:20	retrofitted (1)
	photo (1)	18:18;19:8	recently (1)	9:25
4:15	8:2	projects (7)	20:25	retrofitting (2)
	picture (3)	6:6,12,23;7:4;	reclamation (1)	4:1;7:22
9:16	10:3;12:8,9	16:12;17:9;21:2	15:18	review (6)
	piece (2)	propose (1)	record (2)	3:10,13;4:25;16:4,
3:18	8:2,18	12:6	16:24;19:16	10;17:8
	place (3)	proposed (6)	reflects (1)	revoke (1)
7:14,21;8:16,20,21;	4:22;6:8;14:16	3:11,25;5:3;13:21;	14:2	4:24
	placed (1)	16:13;17:11	regarding (1)	Rich (10)
21:1	7:4	proposing (4)	20:4	3:12;5:2,10;15:23,
outdated (1)	placement (1)	9:8;12:3,11,16	Regardless (1)	25;16:1;19:6,12;
6:12	20:7	protect (1)	7:19	21:15,17
	plan (1)	13:2	region (3)	right (15)
3:23;4:9;12:13	19:15	provide (3)	6:24;7:6;12:19	6:16;9:13,16,21,22;
over (4)	planner (1)	6:1;16:9;18:1	regularly (1)	12:14;13:11,22;
16:7,7;21:13,14	3:6	provided (1)	18:6	14:15,23;15:14,16,25;
	planning (2)	5:2	relationships (1)	19:13,13
6:1	7:13;11:15	provides (1)	13:7	righty (3)
	plans (2)	4:18	remain (2)	19:6;21:12,15
18:7	5:23;7:18	public (6)	8:17;13:6	roads (2)
owner (1)	plenty (1)	3:3,5;5:5;16:2;	remains (1)	8:15;10:3
6:4	5:8	17:25;21:24	20:7	roles (1)
	pm (1)	PUC (2)	remarks (1)	21:21
P	18:11	3:12;14:25	19:20	rotation (1)
	point (6)	purposes (1)	remove (1)	12:10
page (2)	6:21;11:13,20;	15:18	8:24	rotors (1)
16:22,25	12:10;13:3,13		removing (2)	4:5
par (1)	points (1)	Q	8:14;10:8	routing (1)
10:22	7:2		renewable (1)	10:13
	possible (3)	quarter (1)	6:3	Rule (1)
13:22	13:17;15:8,11	5:12	replacing (6)	4:18
	post-condition (1)	quick (6)	4:4,5;7:25;8:1,7;	rules (1)
11:14;20:6	13:14	3:8,9,15;4:25;5:14;	12:4	18:24
	potential (4)	16:1	repower (4)	runs (1)
17:25	14:19;16:13;17:12,	quite (1)	3:21;9:14;10:25;	10:16
particular (7)	13	9:15	20:15	
	potentially (1)		repowered (2)	S
16:12;20:16,19	15:5	R	7:7;10:17	
	Power (4)		repowering (3)	SAM (17)
11:16	5:22;6:3;10:11,12	radar (2)	7:15;16:17;18:18	3:1,5,9;5:19;15:1,
	pre- (1)	12:25;13:1	represents (1)	23;17:17;19:1,3,10,
20:15	13:14	radio (3)	6:5	14,24;20:2,13,20;
paths (1)	presence (2)	20:8,10,25	request (1)	21:12,18
9:22	6:5,9	radius (2)	17:6	same (5)
pattern (1)	presentation (1)	10:5,6	requested (1)	9:17;11:21;14:1;
9:4	19:16	raised (1)	4:4	16:6;20:7
Paul (1)	preservation (1)	19:24	Requesting (1)	save (1)
21:15	4:16	ran (2)	4:3	17:1
perfect (1)	pretty (5)	10:14;20:15	resource (1)	scenario (1)
5:18				
period (2)	18:6,7;19:8,15,21	rated (1)	17:12	10:17
	18:6,7;19:8,15,21 primary (1)	rated (1) 12:15	17:12 resources (2)	schedules (1)
5:7;18:10	18:6,7;19:8,15,21			
	18:6,7;19:8,15,21 primary (1) 17:8 probably (2)	12:15	resources (2)	schedules (1)
	18:6,7;19:8,15,21 primary (1) 17:8	12:15 reached (2)	resources (2) 4:17;16:14	schedules (1) 14:17
permit (17) 3:18,22,23;4:19,23,	18:6,7;19:8,15,21 primary (1) 17:8 probably (2)	12:15 reached (2) 20:9;21:1	resources (2) 4:17;16:14 respect (1) 19:1 respective (1)	schedules (1) 14:17 schedule's (1)
permit (17) 3:18,22,23;4:19,23,	18:6,7;19:8,15,21 primary (1) 17:8 probably (2) 10:24;19:17	12:15 reached (2) 20:9;21:1 ready (1)	resources (2) 4:17;16:14 respect (1) 19:1	schedules (1) 14:17 schedule's (1) 11:19
permit (17) 3:18,22,23;4:19,23, 24;5:4,10,12;16:17;	18:6,7;19:8,15,21 primary (1) 17:8 probably (2) 10:24;19:17 process (5)	12:15 reached (2) 20:9;21:1 ready (1) 11:6	resources (2) 4:17;16:14 respect (1) 19:1 respective (1)	schedules (1) 14:17 schedule's (1) 11:19 SCHWITZER (7)
permit (17) 3:18,22,23;4:19,23, 24;5:4,10,12;16:17; 17:6,16,16,21;18:16, 18,19	18:6,7;19:8,15,21 primary (1) 17:8 probably (2) 10:24;19:17 process (5) 3:10,13;7:20;11:15;	12:15 reached (2) 20:9;21:1 ready (1) 11:6 real (3)	resources (2) 4:17;16:14 respect (1) 19:1 respective (1) 21:21	schedules (1) 14:17 schedule's (1) 11:19 SCHWITZER (7) 5:18,21;19:22;
permit (17) 3:18,22,23;4:19,23, 24;5:4,10,12;16:17; 17:6,16,16,21;18:16, 18,19	18:6,7;19:8,15,21 primary (1) 17:8 probably (2) 10:24;19:17 process (5) 3:10,13;7:20;11:15; 18:3	12:15 reached (2) 20:9;21:1 ready (1) 11:6 real (3) 3:15;4:25;5:14	resources (2) 4:17;16:14 respect (1) 19:1 respective (1) 21:21 respectively (1)	schedules (1) 14:17 schedule's (1) 11:19 SCHWITZER (7) 5:18,21;19:22; 20:11,14;21:6,11
permit (17) 3:18,22,23;4:19,23, 24;5:4,10,12;16:17; 17:6,16,16,21;18:16, 18,19 permitted (1) 4:11	18:6,7;19:8,15,21 primary (1) 17:8 probably (2) 10:24;19:17 process (5) 3:10,13;7:20;11:15; 18:3 production (1)	12:15 reached (2) 20:9;21:1 ready (1) 11:6 real (3) 3:15;4:25;5:14 really (12) 6:8;7:15,20;8:14;	resources (2) 4:17;16:14 respect (1) 19:1 respective (1) 21:21 respectively (1) 7:4	schedules (1) 14:17 schedule's (1) 11:19 SCHWITZER (7) 5:18,21;19:22; 20:11,14;21:6,11 scope (1)
permit (17) 3:18,22,23;4:19,23, 24;5:4,10,12;16:17; 17:6,16,16,21;18:16, 18,19 permitted (1) 4:11	18:6,7;19:8,15,21 primary (1) 17:8 probably (2) 10:24;19:17 process (5) 3:10,13;7:20;11:15; 18:3 production (1) 9:18	12:15 reached (2) 20:9;21:1 ready (1) 11:6 real (3) 3:15;4:25;5:14 really (12)	resources (2) 4:17;16:14 respect (1) 19:1 respective (1) 21:21 respectively (1) 7:4 restoration (1)	schedules (1) 14:17 schedule's (1) 11:19 SCHWITZER (7) 5:18,21;19:22; 20:11,14;21:6,11 scope (1) 8:6

tuni i uone iieming				
section (3)	18:23	system (4)	7:14;11:17;14:7,22;	
8:22;10:10,16	specific (1)	4:14,20;12:23;20:8	15:2,7,11	V
sections (2)	16:21	, , , ,	tower (8)	•
10:18,20	specifically (2)	${f T}$	4:3;8:3,18,22,25;	vehicles (1)
selection (1)	6:9;7:25		9:2,8;20:8	11:8
11:18	specifics (4)	tab (1)	towers (4)	virtual (1)
September (1)	7:12,19;11:12,13	18:3	8:14,20,23;14:13	5:6
5:9	springtime (1)	table (3)	transmission (1)	3.0
serves (1)	15:9	13:11;14:1,2	8:16	W
17:7	St (1)	talk (1)	transparent (1)	VV
service (1)	21:15	7:14	11:22	H (1)
7:5	Stacy (11)	talked (1)	trench (1)	walk (1)
share (1)	18:6;19:10,25,25;	13:19	10:19	9:22
11:22	20:1,3,12,14,21,22;	talking (3)	trigger (1)	way (1)
showing (1)	21:9	7:9;10:25;14:17	13:4	21:7
3:1	staging (2)		Trimont (2)	webpage (1)
side (1)		tall (1) 9:1	6:25;7:5	16:20
	11:1,10			website (1)
9:13	standpoint (1)	tasks (1)	truly (3)	18:4
site (19)	11:3	16:7	6:5;11:15;14:21	Wednesday (1)
3:22;4:19;5:4,10,	stands (1)	TBD (1)	try (1)	18:10
11;7:17;9:18;14:8,9;	7:3	12:25	15:25	week-to-week (1)
15:16,18;16:17;17:6,	start (1)	tearing (1)	trying (1)	14:21
15,16,21;18:16,17,18	15:9	9:7	18:15	weren't (1)
sited (1)	States (2)	technical (1)	turbine (13)	19:17
13:1	6:4,6	16:9	4:2,5,9;7:25;8:4,13;	What's (1)
siting (1)	statewide (3)	temporary (2)	12:9,13,13;13:4,19;	13:20
4:14	20:8,10,25	9:12;11:8	20:7;21:2	widen (1)
sits (1)	Statute (2)	term (2)	turbines (6)	10:4
8:3	4:13,22	3:24;7:16	4:7,8,9;8:21;10:12;	Wind (12)
skies (1)	still (3)	Thanks (5)	13:15	3:4,18,20,21;4:14,
13:6	5:8;14:5;17:18	3:1;15:23,23;21:18,	turning (1)	20;5:23;6:5,9,13;
slide (13)	store (2)	22	10:5	17:8;21:2
5:24;6:15;7:11;	11:4,6	third (1)	two (1)	within (1)
11:11;14:6,14;15:21;	studies (2)	6:3	9:5	14:12
16:18;17:3,24;18:9,	10:14;20:15	throughout (1)	two-part (1)	work (11)
12,22	stuff (1)	15:17	20:5	
small (1)	18:7	thumb (1)		8:6,20;9:3,5,9;
8:13	subject (2)	18:24	U	10:17;11:3;14:24;
snapshot (1)	11:20;14:16	timeline (2)		21:4,19,21
12:2	submit (3)	5:1;14:19	under (3)	working (8)
solar (1)	5:10;16:21;18:1	l	` /	7:13;11:17;14:5,7,
6:5	submitted (2)	tip (5) 4:7;12:8,10,11;	4:13,21;10:17	22;15:4,7,11
	3:20;15:2		undertaken (1)	worry (2)
solution (1)		13:24	17:14	18:23,25
13:21	Subp (1)	today (9)	unfamiliar (1)	writing (1)
sometime (1)	4:18	3:2;5:6;8:17;11:23;	6:2	18:2
5:12	substation (3)	12:3,4;13:16,20;14:4	Unit (1)	written (1)
soon (1)	4:3;8:15;10:13	tomorrow (1)	16:3	5:9
15:6	summary (1)	19:17	unmuted (1)	
soonest (1)	3:9	tonight (5)	19:25	Y
14:19	supplemented (1)	3:3;7:9;14:25;18:1,	up (7)	
sorry (4)	10:19	24	3:1;5:16;8:3;12:6;	yard (1)
7:7;20:11,18,21	supporting (1)	top (4)	13:21;20:16;21:7	13:1
sort (1)	14:8	8:3,23;16:20,22	updated (1)	yards (1)
10:22	sure (2)	Topics (1)	20:15	11:1
sounds (1)	13:10;21:3	18:13	upgrades (2)	year (5)
21:13	surveys (1)	total (1)	10:10;21:2	5:2,12;15:6,17;
south (1)	14:23	4:10	use (2)	17:17
21:15	suspend (1)	touch (4)	4:17;17:15	year-end (1)
space (1)	4:24	8:9;9:11;12:18;	used (1)	15:12
11:4	sustainable (1)	14:7	16:4	years (2)
speaker (1)	4:16	touched (1)	Utilities (2)	
				6:20;7:8
	swing (1)	12:17	1 1:0:10:2	riallari (1)
18:25 speakers (1)	swing (1) 10:6	12:17 towards (7)	3:5;16:2	yellow (1) 6:25

vii tuui i uone iieui mg	0 0 20	0, eee	1	1148451 0, 2020
yesterday (1) 5:4	216F04 (1) 4:22			
	22 (1)			
Z	6:6 25th (1)			
zooming (1)	3:19			
6:16		_		
0	4			
U	4 (1)			
09-553 (1)	5:12			
3:4	4:30 (1) 18:11			
1	418 (1)			
	12:12			
120-meter (1)	480 (1)			
12:7 127.5 (1)	12:12			
4:8	5			
146 (1)				
4:8 150 (1)	5th (1) 5:10			
4:11	3.10			
17 (1)	6			
9:1	(2 (2)			
1st (2) 3:19;5:1	62 (2) 13:15,17			
2	7			
	70 (1)			
2 (1) 4:18	78 (1) 4:7			
2.2 (2)	7854.1300 (1)			
4:10;12:16	4:18			
2.4 (1) 4:9	8			
2.4-megawatt (1)	0	_		
12:15	86 (1)			
2.4s (1) 13:21	4:7			
20 (1)	9			
6:20				
20- (1) 7:7	90-degree (1) 10:5			
2005 (1)	95-meter (1)			
7:6	12:5			
2008 (1) 7:8				
2010 (2)				
3:19;7:10				
2020 (1) 7:8				
2025 (4)				
3:19;5:13;15:6;				
18:11				
2026 (3) 15:9,10,13				
2027 (1)				
15:17				
20th (3) 5:4,8;18:11				
216F03 (1)				
4:13				
		1		