SCOPING AND INFORMATIONAL MEETING
SEPTEMBER 1, 2021 - 21-191, 21-190, 21-189
BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION
AND DEPARTMENT OF COMMERCE
In the Matter of the Application of Xcel Energy for a
Site Permit and Two Route Permits for the up to 460
Megawatt Sherco Solar Energy Generating System and
Associated 345 Kilovolt Transmission Lines in Sherburne
County, Minnesota
MPUC DOCKET NO. E-0002/GS-21-191
E-0002/TL-21-190
E-0002/TL-21-189
Met telephonically, pursuant to Notice,
at 6:00 p.m. in the evening on September 1, 2021.
COURT REPORTER: Bridget E. Kelly

1	INDEX	
2	SPEAKER	PAGE
3	Scott Ek	3
4	William Risse	10
5	Bill Storm	23
6	Kevin Pranis	30
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

Good day, and thank you for OPERATOR: standing by. Welcome to the Sherco Solar Project conference call. At this time all participants are in listen-only mode, and after the speakers' presentation, there will be a question and answer To ask a question during the session, session. you'll need to press *1 on your telephone. be advised that today's conference is being recorded. If you require any further assistance, please press *0. I would now like to hand the conference over to your speaker today, speaker Scott Please go ahead, sir. Ek.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

MR. SCOTT EK: Good evening, and welcome to the public information and environmental assessment scoping meeting for the proposed Sherco Solar Project.

Just a moment here.

Again, my name is Scott Ek. I am an energy facilities planner with the Minnesota Public Utilities Commission, and as I said, tonight we're here for the Sherco Solar Project public information meeting.

For those of you on the phone right now,

I wanted to let you know -- it was in the notice,

but there is a presentation also on Webex that you

would have to go to online to see the PowerPoint presentation. And it was in the notice, and you can navigate your computer, if you'd like to watch it, to Minnesota dot Webex, W-E-B-E-X, dot com and enter the event number 1463280765. And you'll be able to listen along and watch the presentation that's available.

And I also want to remind folks that are on the phone that throughout the presentation you may press *1 on your phone if you're interested in asking a question or providing a comment. The operator will place you into a queue, and we'll take your questions and comments at the end of the presentation.

So now to get on with the presentation.

So this evening, I guess, first, the purpose of tonight's meeting is to provide information about the proposed project, answer questions about the project and the permitting process, and receive comments on topics for potential consideration in the environmental assessment that will be prepared.

The meeting will proceed tonight with me providing a brief summary of the permitting process and the state's role in that process, followed by a description of the proposed project by Xcel Energy

representatives. And following Xcel will be a summary of the environmental review requirements by Bill Storm with the Minnesota Department of Commerce. And after the presentations we'll open the meeting up, as I said, for questions and comments folks may have.

So the Sherco Solar Project is a proposed 460-megawatt solar energy-generating system. The project is proposed to be divided into an east block and a west block of solar panels, and those two blocks would connect to the electric transmission system by way of two 345-kilovolt transmission lines, 1.7 miles and 3.2 miles in length respectively. That's just a brief summary. Xcel as I said will provide a much more detailed description of the project, including maps and figures of the proposed project and other details.

So we're here tonight because the project as proposed, that's being applied for, requires a total of three permits from the Public Utilities

Commission. It requires a site permit because the facility is greater than 50 megawatts in size, and it also will require two route permits because those two high-voltage transmission lines are greater than 100 kilovolts and longer than 1500 feet in length.

so part of the reason for tonight's meeting and the written comment period that follows this meeting is to get comments on matters that should be addressed in either of the three permits that are being sought. And also, I just want to point out a project of this size typically requires a certificate of need. But the Commission in a separate but related docket, it was Docket 20-891, exempted the project from this requirement because it was already part of an approved bidding process. So a certificate of need is not required in this case.

So at the end of this -- at the end of the application review process, the Public Utilities Commission needs to make a final decision on whether to issue permits for the project and, if they do issue permits, what conditions should be put into those permits. When the Commission makes its final decision, it considers the whole record of the case. That includes information provided in the applications; comments received during the review process, such as comments from interested citizens, from local and state government units. It considers information presented in the environmental assessment that will be prepared, as well as the

report that's prepared by the administrative law judge. And I'll get to that in a moment.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

And so all of those decisions are generally made within the context of the potential human and environmental impacts that the project may For example the environmental assessment have. looks at -- I just have a few of the items on screen, but it looks at noise, aesthetics, public health and safety, land-use conflicts, cultural and historic resources, air and water quality, plants and wildlife. And there's a host of other topics that the environmental assessment looks at automatically. And again, one of the reasons we're here tonight is if there are any other impacts that folks that live in the area know about. Those would be considered to be included in the scope and also evaluated in an environmental assessment.

So the Commission also, when making its decision, considers methods that have been proposed to minimize, mitigate, or avoid any impacts identified that the project may cause. And the Commission also looks at whether the project is efficient, cost-effective, secure, and conserves resources. So there's a whole host of factors the Commission must look at, at the end of this process,

when deciding to issue a permit for a project such as this.

And again, I should remind folks, if anything comes to mind, press *1 on your phone, and that will put you in a queue. And the operator will take you in order of -- in the order you pressed *1 at the end of the meeting, and we'll answer your questions and comments then.

So this slide shows -- generally shows the estimated review timeline. So tonight -- you can see the third box down, the third blue box down, with the star on it -- we're at the public information and scoping meeting. Last night we had the in-person meeting up in Becker. Tonight's the remote meeting, and there's a comment period that follows this meeting that's open -- a written comment period -- that's open till September 15th.

After these meetings and the comment period ends, there's -- the next step in the process is the issuing of the environmental assessment scoping decision, followed by the release of the environmental assessment. And Bill Storm with the Department of Commerce will go into greater detail on the scope and the environmental assessment and what he's looking for.

Once the environmental assessment is issued, we will be back out in the City of Becker to hold a public hearing. And that public hearing will be -- it's similar to a public meeting such as this; however, the hearing is proceeded over by an administrative law judge from the Office of Administrative Hearings. And the judge will not only -- will take comments and questions about the project as a whole, so the merits of the whole project. So it's an opportunity for folks down the line to provide additional comments on the project, on any items that were -- new items that were identified in the EA, items that may have been missed along the way, or items where there's still disagreement between parties and whatnot. So that would be at the public hearing. And there's a written comment period that also follows the public hearing.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Once that public hearing comment period ends, you can see the administrative law judge will issue a report. And that report is actually a collection of findings, conclusions of law, and a recommendation to the Commission on whether to issue permits and generally includes initial conditions for those permits as recommended by the judge. So

at the end of the process, as I said, we get to a final permit decision, which right now is estimated around May or June of next year. And the Commission, as I said, would take all that information in the record into consideration and would make a determination on whether to issue a permit in this case.

So with that, that's a quick review of the state review process and how the Public Utilities Commission is involved. I will be on the line at the end of the presentation, along with Department of Commerce and the applicant Xcel Energy, to answer any questions you might have. So I'll turn it over now to Xcel Energy to discuss the greater details of the Sherco Solar Project.

MR. WILLIAM RISSE: Yeah, thanks very much, Scott. My name is William Risse. I'm a permitting specialist with National Grid Renewables. We're, at National Grid Renewables, supporting Xcel in the development efforts of this project, and I'll be speaking on behalf of the applicant Xcel Energy tonight.

We're here to answer -- to discuss project details and also answer your questions regarding those details following the presentation.

If this was in person, I would tell you feel free to connect with us after the meeting if you have any other questions you want answered. But at the conclusion of my presentation, I will be providing you some contact information, if you'd like to reach out to myself or one of my colleagues to get your questions answered or discuss the project in more detail.

So with that, if you could go to the next slide, Scott.

Just to quantify that relationship
between National Grid Renewables and Xcel Energy in
a little more detail, National Grid Renewables and
Xcel partnered on this project -- I'm kind of
bringing those two separate project blocks together
-- to push the project forward into development and
then through permitting. And then following that,
Xcel Energy plans to construct and operate the
project in the long-term. And this relationship
really allows Xcel to leverage our experience as
they move forward to reach their goal of 100 percent
carbon-free energy in 2050.

So with that, we can get into the project details and a bit more -- and a bit more information here. The project all in all, as Scott mentioned,

is 460 megawatts, and each block of the project -so the west block and east block here -- totalling
about 3500 acres. Each of those contributes about
230 megawatts to the project. I'm sure you're
wondering what 230 or 460 megawatts looks like on
the ground, and I'll get to that in a bit here on
the next slide. In addition, we have two
transmission lines from those west blocks where that
power will be created by the solar project, and
those are about 3.1 and 1.6 miles respectively.

As I'm sure most of you listening in are aware, the project is located in Clear Lake

Township, Becker Township, and the transmission

lines themselves are located in the City of Becker.

The expected or anticipated -- kind of the

commercial operation date, the COD of the project

when we plan to be operational, could be as early as

December 31st, 2024.

If you'd like to go to the next slide.

So I mentioned earlier what does 460 megawatts look like? So 460 megawatts is about the equivalent of powering 100,000 homes in a year, and that's also kind of the equivalent of taking 300,000 tons of CO2 each year out of the atmosphere or removing 60,000 cars from the road over the course

of the year. In terms of just other benefits from the project, we're looking at about \$115 million in wages from 900 union construction jobs and \$240 million in local benefits such as taxes and landowner payments over that 35-year project life.

So with that, with a little background on what the project looks like -- we go through, as Scott mentioned, some pretty rigorous environmental review and agency coordination as we construct these projects. We do a lot of studies and also consultations with various agencies who have expertise and knowledge to help us through this permitting process. Some of the studies and consultations we've done include wetland delineations, just figuring out where wetlands are on the site, in this case avoiding those wetland resources and also doing a cultural-resource survey to identify any sensitive resources that might need to be avoided.

We've also engaged the DNR in a natural-resource heritage information system review. This is kind of an aggregate of data that shows if there's any known sensitive resources in the area that we may need to do specific mitigation or protection of those species or resources. In

consultation with the Department of Agriculture, we've also developed an agricultural impact-mitigation plan, and we've coordinated with the Department of Agriculture on this. And the end goal of that plan is to really establish a solar project and decompact those soils to ensure the long-term viability of the agricultural land. I'll get a little bit into decommissioning here a bit later and touch on that, what the land will look like post-construction and operation.

And finally, we've been coordinating closely with agencies on a vegetation management plan. Xcel's really excited in this project to develop a very robust plan for pollinator friendly species, and they're coordinating with the Board of Water and Soil Resources, also known as BWSER, to push this plan forward and become what's known as a pollinator-certified site within the state.

So now that we've gone into kind of some of the review we've done ahead of construction and operation of this project and ahead of permitting, we'll get into what the components look like on the ground and kind of how those are installed. So you can see on the left here that the first thing that needs to go in the ground out there are the pilings.

And these piling support the racking system, which is the middle photo here.

So the type of racking system we're looking at for this project is what's known as a tracking rack system. And that tracks the sun throughout the day, facing east in the morning, kind of straight up in the middle of the day, noon hour, and then west in the afternoon and evening. The roads are oriented generally north and south as well. And then on the right you can kind of see an example of that racking more built out to accommodate the solar panels. If we want to go to the next slide, I can touch on those.

So as you can see on the racking, the most important part of the project, in my opinion, are the solar panels. These are what generate the electricity on the site. These will generally be located throughout the east and west blocks that I touched on earlier. And here I've kind of touched on three types of solar panels: The monocrystalline bifacial, which actually collects sunlight on both sides of the panels. So any light that's reflected off the ground, off the vegetation is also collected. But alternatively, thin film and polycrystalline panels.

The way I like to look at this is kind of -- we like to keep our options open on what panel's selected for the project. It's kind of like when you're going shopping for your car tires, you want to wait till there's the best deal and really wait until you're sure of what you need and just, yeah, that best bang for your buck upon purchase of those panels.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Just to touch on some other components of the project. So you can see the installation of panels at left here. So once that electricity is produced by the panel, it's what's known as DC electricity. It's low voltage. That's routed to what's known as an inverter, which is the upper right photo here. And the inverters, they step up -- we call it stepping up the energy -- so it can be transmitted a longer distance at kind of a medium voltage to get to, the lower right photo here, the collector substation. So the power goes from the panels to the inverters and then onto the collector substation, at which point its fed into those two transmission lines I mentioned earlier, and then interconnects at the existing substation within Sherco's facility that's already there. And that's where the power's transmitted to the greater

electric grid.

One question we get about all these components quite a bit is what do these sound like out there? So a good comparison is for the inverters, which are kind of the primary power-producing or sound-producing equipment out there. At about 150 feet, your kind of run-of-the-mill standard inverter, you're looking at noise no more than, like, that of a high-efficiency dishwasher in your home. That's about what you'd hear out there. So we've taken great care to site these even more internally within the project to avoid any sort of noise impact to the surrounding community.

With that, I've kind of touched on the components a little bit about the construction. But here's kind of the general tasks listed out in order. Starting with site preparation, grading of the project out there. As many of you who are listening and are probably familiar with the area, it's very flat. But there will be some minimal grading, as well as installing site access to allow for the installation equipment to get in there.

Following kind of that general site preparation, the next step is pile installation; and

then, on top of that, the racking installation, which I already mentioned; followed by the module installation; and then completing that interconnection process, so connecting the collector substation within the east and west block to the transmission line and the grid; and then at the end of that process, the re-vegetation, establishing per the vegetation-management plan that I already spoke about, getting that native vegetation established beneath the panels.

Just something to mention, the pile installation does involve a little bit of noise out there. But in any one area, it's pretty condensed into a short amount of time. They'll quickly get those piles installed and then kind of move across the project site, and the components after that are generally pretty light-duty, vehicles, a lot of foot traffic, and then install of those panels on the site.

If we can flip to the next slide.

Just to touch a little more on that re-vegetation process. So at left here you can kind of see. Here's what it looks like after that initial panel install. You can see in the middle, in this case, there's a waterway adjacent to the

solar project, but just doing a little bit of implementation of matting to ensure that heating establishes. And then at right there you can kind of see what that vegetation looks like around the panels once it's established and that native vegetation is able to take hold.

So with that, we have just the general site overview just to give everybody an idea again of what things look like out here. You can see the west block and the east block, which will contain the panels, inverters, and those collector substations, as they're called out here, and then those two high-voltage transmission lines that I talked about earlier, connecting all of that project to the electric grid.

If you want to go the next slide.

So here, just a couple visual renderings of what this will look like. These are actually photos we collected on the ground kind of late last summer, last fall, and then we added solar panels into those photos. So at bottom right here, you can see kind of the view of about -- it's about a tenth of a mile looking south on 115th Avenue towards River Road Southeast or Highway 8. I mean, you can kind of see the panels in the background. I think

this is just, from my perspective, a good example of how quickly at a distance these really start to blend into the background. And at top left here, this is actually further up River Road near the western boundary of the west block, just kind of a closer view of the panels with some vegetation, which you can kind of see that vegetation really blocks the view of the panels quite quickly, just the existing vegetation that's in the area.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

So we've touched on kind of what this will look like post-construction and the construction process. I'll just touch a little bit on operations and maintenance. There will really be after construction minimal onsite traffic. talking about four to six regular onsite techs daily, some other deliveries and such for components and stuff but relatively minimal. In addition to that, you're going to look at route inspections of those transmission lines and just general electrical maintenance of the panels. There's quite a few components going on out here, so just keeping those in good working condition. We'll do semiannual drone inspections of those panels, just doing flyovers to note anything of concern or anything that needs repair out there, with those repairs

being completed as needed.

And in addition I've already mentioned kind of that vegetation-management plan, maintaining those native-pollinator species, making sure they establish in those first few years, and then doing that occasional mowing two to three times a year during the initial establishment. And then our hope is actually to mow this as little as possible in the long-term, but likely looking at about one year following that.

So finally, we're kind of through the operations process. We know what it's going to look like a bit on the ground during operations. So let's talk a bit about the end of the project life. So there's a few things that could happen here. The project may be repowered. There might be new technology available, a better solar panel. So we could repower this project, or alternatively, the project could be decommissioned, meaning that all of that equipment would be removed. Maybe there's a new technology, something better out there, that's producing energy and this solar project's no longer needed.

In the case of decommissioning, those components are removed and reused or recycled at the

end of the project's life. And the end goal, per the agricultural impact-mitigation plan I mentioned earlier, is that we can restore the site to its previous agricultural use, or if the landowner wished to do something else with their property, it would be up to their wishes. We could certainly -- in an agreement with the landowner or something, if they wanted an access road maintained out there or something, we would be willing to work with them on that.

Generally, just something we also like to touch on per that ag impact-mitigation plan and vegetation-management plan is that the soil is allowed to rest and lie fallow. Those deep roots really have benefits and can add nutrients, fixate nitrogen into the soil, and improve that soil health over time. So our hope is that we leave the site in a better condition than we found it when all things are said and done and that agricultural use can continue upon decommissioning.

So with that, I appreciate everybody's time. Our contact information is listed here. We do have a few panelists, myself and representatives from Xcel Energy, to answer your questions following the remainder of this presentation, and we look

forward to working with the community as we continue to develop this project. So thank you.

MR. SCOTT EK: Okay. Now we'll turn it over to Bill Storm with the Minnesota Department of Commerce, who will explain the environmental review part of the permitting process. And I just also again wanted to remind folks on the phone, if you have a question or a comment, press *1 and you'll be placed into a queue. And the operator will -- we'll address your questions/comments at the end.

All right. Go ahead, Bill.

MR. BILL STORM: Okay. Good evening. My name is Bill Storm. As Scott said I work for the Department of Commerce. The Department of Commerce's role here is we conduct the environmental review for the Commission on large energy projects that come to the Commission for a final decision. As Scott noted the Commission is the final decision-maker.

Basically, what is an environmental review? Well, the goal of environmental review is to result in informed decision-making. So the final decision-makers, the Commission, are well informed of the facts.

The environmental review basically

consists of two parts, the first part being scoping, which is what we're doing here tonight, what we did at last night's meeting, and what the comment period is set up to do. And scoping basically just seeks input from the public and from local units of government of what they would like to see in the environmental-review document, in this case the environmental-review document is an EA, So basically, scoping is environmental assessment. me asking the public and local units of government to help me build the table of contents. What potential impacts and possible mitigations and minimizations do you want me to discuss in the document?

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

The second part is the document itself. The document is basically an objective assembly of the facts, and it enables all the parties to use the information to form their opinions and their recommendations going forward. The environmental-review process does not advocate for or against the project. It's basically just a fact-finding tool.

Go ahead, Scott.

And then what is scoping? Scoping -- what we do in scoping is we want to focus the

environmental assessment on the most relevant information. It provides an opportunity for the public to provide input into the table of contents. Examples would be: What potential human and environmental impacts should be studied? Are there ways to minimize, mitigate, or avoid these potential impacts? Are there any unique characteristics of the proposed site of the project that should be This is a big part. considered? This is where I look to the local unit of government and the local citizenry to -- what do you know about the area that you want to make sure I capture in the environmental document? And the last part in scoping is if you read the applications and you feel there is data that's either mischaracterized or just missing, this is an opportunity to mention that and bring it forward so I can capture and fill what holes there may be in the application in the EA.

Okay, Scott.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

The environmental assessment is the document that I'll prepare. The Department of Commerce's role is to do that. The document will contain a description of the project and any alternatives that make it in the scope. It assesses the potential human and environmental impacts of the

project and identifies strategies to avoid or mitigate the impacts. And the environmental assessment that I produce will cover both the solar sites and the transmission line.

So basically, what I'm seeking, through last night's meeting and tonight's meeting and the comment period, is to get the public and the local units of government to provide me some information. Give me some information so I can build that table of contents of the scope. And then once the scope is determined, I will start assembling the actual document.

So you can move forward on that slide there, Scott.

So here's how to comment. Here's how to get your comments. You can comment tonight. You can complete -- if you go to the MPCA or you go to the -- I forgot which agency I'm going for. If you go to the Department of Commerce's website and look up the Sherco Solar site, you'll find a registry that has documents listed, and one of the documents is a comment form. And we had the comment forms at the physical meeting last night. That's one way you can comment, by completing that form. You can -- you don't have to use our form. You can use your

own stationery.

You can go the website that's listed there, the Commerce website, and you can electronically comment. When you go to that website, you'll see a link for if you want to comment. If you click that link, it will show you what dockets are open. Sherco Solar is the docket we're talking about tonight. Click on that, and then you can submit a comment to me electronically.

Again, you can mail, fax, e-mail your comment to me. My information is there on the slide. I need to have your comments by the close of business day on Wednesday, September 15th. So get your comments to me by that date so they can be considered.

Okay, Scott.

This slide is pretty much a remnant from last night's meeting, our real, in-person, physical meeting. But at the end of this presentation, Scott will -- through the queue that the operator sets, will take -- will allow you to have an opportunity to comment. Since we're all not sitting in a room personally, some of this doesn't really apply, but -- because you only have one speaker at a time the way this is set up. But be respectful. That still

stands. Please state and spell your name for the record so we know who's making a comment.

Direct your comments and questions to the scope of the EA for my purposes. If you have general comments that you'd like to ask the applicant, you can also do that at this time too. But for my needs, I'd like your comments on issues, concerns you may have. Focus them on the scope of the EA, what you would like to see in that EA document. Again, the last line, just keep your comments curt, I guess. You know, we can always circle back and give everybody a chance to talk.

Okay, Scott, go forward.

Again, this is just another reminder of how to focus your comments tonight. What potential human and environmental impacts should be studied in the environmental assessment? Are there ways that could minimize, mitigate, or avoid the impact? Are there unique characteristics that you know about the site or the area that you want to make sure I capture in the document? And again, is there anything missing or mischaracterized in the application? Again, remember, the comment period closes September 15th, end of business day.

Next step.

1 The next slide is just our information so 2 you can contact us. And with that, Scott you can open it up for questions and comments. 3 MR. SCOTT EK: Thanks, Bill. 4 Yeah, and I'll leave this last slide up 5 for folks that are viewing on the Webex. 6 You can take down any of that information. So that will 7 stay up through the remainder of the meeting. 8 9 But, Norah, can you please -- oh, I 10 should say we're at the point we're going to do questions and comments. So again, press *1 on your 11 phone if you do have a question or a comment. 12 And the operator will put you in a queue, and we'll go 13 answer your questions in an orderly manner. 14 15 So, Norah, if you want to start. OPERATOR: Again, as a reminder, to ask a 16 17 question, you'll need to press *1 on your telephone, 18 and to withdraw your question, press the pound key. Please stand by while we compile the Q and A roster. 19 20 Okay, once again, if you'd like to ask a 21 question, please press *1 on your telephone keypad. 22 There are no questions at this time. 23 may proceed, presenters. Okay. Maybe we should 24 MR. SCOTT EK: 25 wait a minute or two. Maybe there's a delay in how

folks get into the queue here. But again, please press *1 if there's any questions or comments you have on the scope or questions about the application-review process or any other matter.

OPERATOR: Presenters, we have a person on queue who would like to ask a question. And the question comes from the line of Kevin Pranis. Your line is open.

MR. KEVIN PRANIS: Thanks. Just to clarify, is this an opportunity to provide comments or just questions?

MR. SCOTT EK: Hello, Mr. Pranis. No, comments or questions.

MR. KEVIN PRANIS: Great. So I just wanted to, you know, comment. I work with LIUNA Laborers' Union. I represent 12,000 workers including many who live near Becker in this area and, you know, have worked for generations in power plants. And we think one of the -- one thing that's really unique about this project that seems important to be part of the environmental analysis is the economic impact it has in this area.

You know, as I know that -- you know, and all the staff know that most of the real projects, and the sort of jobs associated with those, are

1	happening in other parts of the state, mostly in
2	southern and southwestern Minnesota, pretty far from
3	the Twin Cities metro area. So this project has
4	unique potential to provide jobs and opportunities
5	near both where power plants are going to be
6	retiring and where those are needed and where we
7	have to figure out how folks make this transition
8	now.
9	So, you know, relatively near the cities,
10	and so hope that that's something that can be
11	incorporated in the report. It's a significant
12	potential benefit of the project.
13	MR. SCOTT EK: Thank you, Mr. Pranis. Is
14	that all you have?
15	MR. KEVIN PRANIS: Yeah.
16	MR. SCOTT EK: All right. Thank you very
17	much.
18	Norah, are there any other folks on the
19	waiting in the queue?
20	OPERATOR: There are no further questions
21	at the moment, sir. You may proceed.
22	MR. SCOTT EK: Well, okay, I think we
23	gave it enough time. Hopefully, you received enough
24	information here tonight, and maybe some of you were
25	at last night's meeting. Again, I want to reiterate

there is a written-comment period that's open until 1 2 September 15th. Comments should be received by September 15th, by close of business that day. 3 Information is provided on the screen. 4 As Bill said you can submit comments online to 5 mn.gov/commerce/energyfacilities/#comment and also 6 e-mail them to bill.storm@state.mn.us. 7 8 651-539-0109 or U.S. mail to Bill Storm, Minnesota Department of Commerce, 85 Seventh Place East, 9 Suite 280, St. Paul, Minnesota 55101. 10 And so I encourage you to submit your comments, and please 11 12 feel free to call any one of us, Bill, myself, or 13 William, to ask questions if you have questions about the project or the process. 14 15 So thank you for joining tonight, and 16 that will end the meeting. Thank you. 17 OPERATOR: Thank you for participating. 18 You may now disconnect. (Meeting concluded at 6:42 p.m.) 19 20 21 22 23 24 25

345 Kilovolt Transmiss	ion Lines in Sherburne C	County, MN		September 1, 2021
	21,23;29:11,16,20;	around (2)	bidding (1)	20:7;22:3,15,19;
ф	30:1;31:25	10:3:19:4	6:10	25:17;26:9,13,16,17,
\$		assembling (1)	bifacial (1)	
	against (1)	26:11		24,24,25;27:2,3,9,10,
\$115 (1)	24:21		15:21	14;28:6,11;29:2,2,6,9;
13:2	agencies (2)	assembly (1)	big (1)	31:10;32:5
\$240 (1)	13:11;14:12	24:16	25:9	capture (3)
13:3	agency (2)	assesses (1)	Bill (10)	25:12,17;28:21
	13:9;26:18	25:24	5:3;8:22;23:4,11,	car (1)
*	aggregate (1)	assessment (15)	12,13;29:4;32:5,8,12	16:4
	13:22	3:15;4:21;6:25;7:6,	billstorm@statemnus (1)	carbon-free (1)
*0 (1)	agreement (1)	12,17;8:20,22,24;9:1;	32:7	11:22
3:10	22:7	24:9;25:1,20;26:3;	bit (12)	care (1)
*1 (9)	agricultural (5)	28:17	11:24,24;12:6;14:8,	17:11
3:7;4:10;8:4,6;	14:2,7;22:2,4,19	assistance (1)	8;17:3,16;18:12;19:1;	cars (1)
23:8;29:11,17,21;	Agriculture (2)	3:9	20:12;21:13,14	12:25
30:2	14:1,4	associated (1)	blend (1)	case (7)
	ahead (5)	30:25	20:3	6:12,19;10:7;13:16;
\mathbf{A}	3:12;14:20,21;	atmosphere (1)	block (9)	18:25;21:24;24:7
	23:11;24:23	12:24	5:9,10;12:1,2,2;	cause (1)
able (2)	air (1)	automatically (1)	18:5;19:10,10;20:5	7:21
4:5;19:6	7:10	7:13	blocks (5)	certainly (1)
access (2)	allow (2)	available (2)	5:11;11:15;12:8;	22:6
17:22;22:8	17:22;27:21	4:7;21:17	15:18;20:8	certificate (2)
accommodate (1)	allowed (1)	Avenue (1)	blue (1)	6:7,11
15:12	22:14	19:23	8:11	chance (1)
acres (1)	allows (1)	avoid (5)	Board (1)	28:12
12:3	11:20	7:20;17:13;25:6;	14:15	characteristics (2)
	along (3)	26:1;28:18	both (3)	25:7;28:19
across (1)	4:6;9:14;10:11	avoided (1)	15:21;26:3;31:5	circle (1)
18:15	alternatively (2)	13:19	bottom (1)	28:12
actual (1)	15:24;21:18	avoiding (1)	19:21	Cities (2)
26:11	alternatives (1)	13:16	boundary (1)	31:3,9
actually (5)	25:24	aware (1)	20:5	citizenry (1)
9:21;15:21;19:18;	always (1)	12:12	box (2)	25:11
20:4;21:8	28:11	·	8:11,11	citizens (1)
add (1)	amount (1)	В	brief (2)	6:22
22:15	18:14	_	4:23;5:14	City (2)
added (1)	analysis (1)	back (2)	bring (1)	9:2;12:14
19:20	30:21	9:2;28:12	25:16	clarify (1)
addition (3)	answered (2)	background (3)	bringing (1)	30:10
12:7;20:17;21:2	11:3,7	13:6;19:25;20:3	11:15	Clear (1)
additional (1)	anticipated (1)	bang (1)	buck (1)	12:12
9:11	12:15	16:7	16:7	click (2)
address (1)	applicant (3)	Basically (7)	build (2)	27:6,8
23:10	10:12,21;28:6	23:20,25;24:4,9,16,	24:11;26:9	close (2)
addressed (1)	application (3)	23.20,23,24.4,9,10, 21;26:5	built (1)	27:12;32:3
6:4	6:14;25:18;28:23	Becker (5)	15:11	closely (1)
adjacent (1)	application-review (1)	8:14;9:2;12:13,14;	business (3)	14:12
18:25	30:4	8:14;9:2;12:13,14; 30:17	27:13;28:24;32:3	closer (1)
administrative (4)			BWSER (1)	20:6
7:1;9:6,7,20	applications (2) 6:21;25:14	become (1)	` ,	closes (1)
advised (1)	,	14:17 behalf (1)	14:16	28:24
3:8	applied (1) 5:19	10:21	C	
advocate (1)			C	CO2 (1) 12:24
24:20	apply (1)	beneath (1)	cell (2)	
aesthetics (1)	27:23	18:10	call (3)	COD (1)
7:8	appreciate (1)	benefit (1)	3:3;16:16;32:12	12:16
afternoon (1)	22:21	31:12	called (1)	colleagues (1)
15:8	approved (1)	benefits (3)	19:12	11:6
ag (1)	6:10	13:1,4;22:15	can (42)	collected (2)
22:12	area (10)	best (2)	4:2;8:11;9:20;	15:24;19:19
Again (15)	7:15;13:23;17:20;	16:5,7	11:23;14:24;15:10,	collection (1)
3:18;7:13;8:3;19:8;	18:13;20:9;25:11;	better (3)	13,14;16:10,16;18:20,	9:22
23:7;27:10;28:10,14,	28:20;30:17,22;31:3	21:17,21;22:18	22,24;19:3,9,21,24;	collector (4)
. , ,	1			I.

345 Kilovoit Transmissi	on Lines in Sherburne C	Jounty, MIN		September 1, 2021
16.10.20.10.4.	andust (1)		14.14.22.2	C. 1.25.15
16:19,20;18:4;	conduct (1)	_	14:14;23:2	6:4;25:15
19:11	23:15	\mathbf{D}	developed (1)	Ek (10)
collects (1)	conference (3)		14:2	3:12,13,18;23:3;
15:21	3:3,8,11	daily (1)	development (2)	29:4,24;30:12;31:13,
com (1)	conflicts (1)	20:16	10:20;11:16	16,22
4:4	7:9	data (2)	Direct (1)	electric (3)
comment (24)	connect (2)	13:22;25:14	28:3	5:11;17:1;19:15
4:11;6:2;8:15,17,	5:11;11:2		disagreement (1)	electrical (1)
18;9:17,19;23:8;24:3;	connecting (2)	date (2)	9:15	20:19
26:7,15,16,22,22,24;	18:4;19:14	12:16;27:14	disconnect (1)	electricity (3)
27:4,6,9,11,22;28:2,	conserves (1)	day (6)	32:18	15:17;16:11,13
		3:1;15:6,7;27:13;		
23;29:12;30:15	7:23	28:24;32:3	discuss (4)	electronically (2)
comments (25)	consideration (2)	DC (1)	10:14,23;11:7;	27:4,9
4:13,20;5:6;6:3,21,	4:20;10:5	16:12	24:13	else (1)
22;8:8;9:8,11;26:16;	considered (3)	deal (1)	dishwasher (1)	22:5
27:12,14;28:3,5,7,11,	7:16;25:9;27:15	16:5	17:10	e-mail (2)
15;29:3,11;30:2,10,	considers (3)	December (1)	distance (2)	27:10;32:7
13;32:2,5,11	6:19,23;7:19	12:18	16:17;20:2	enables (1)
Commerce (7)	consists (1)	deciding (1)	divided (1)	24:17
5:4;8:23;10:12;	24:1	8:1	5:9	encourage (1)
23:5,14;27:3;32:9	construct (2)		DNR (1)	32:11
Commerce's (3)	11:18;13:9	decision (6)	13:20	end (16)
23:15;25:22;26:19	construction (5)	6:15,19;7:19;8:21;	Docket (3)	4:13;6:13,13;7:25;
commercial (1)	13:3;14:20;17:16;	10:2;23:17	6:8,8;27:7	8:7;10:1,11;14:4;
12:16	20:12,14	decision-maker (1)		18:6;21:14;22:1,1;
		23:19	dockets (1)	
Commission (15)	consultation (1)	decision-makers (1)	27:7	23:10;27:19;28:24;
3:20;5:21;6:7,15,	14:1	23:23	document (11)	32:16
18;7:18,22,25;9:23;	consultations (2)	decision-making (1)	24:7,8,14,15,16;	ends (2)
10:4,10;23:16,17,18,	13:11,14	23:22	25:13,21,22;26:12;	8:19;9:20
23	contact (3)	decisions (1)	28:10,21	energy (12)
community (2)	11:5;22:22;29:2	7:3	documents (2)	3:19;4:25;10:13,14,
17:14;23:1	contain (2)	decommissioned (1)	26:21,21	21;11:12,18,22;
comparison (1)	19:10;25:23	21:19	done (3)	16:16;21:22;22:24;
17:4	contents (3)	decommissioning (3)	13:14;14:20;22:19	23:16
compile (1)	24:11;25:3;26:10		dot (2)	energy-generating (1)
29:19	context (1)	14:8;21:24;22:20	4:4,4	5:8
complete (1)	7:4	decompact (1)	down (4)	engaged (1)
26:17	continue (2)	14:6	8:11,11;9:10;29:7	13:20
		deep (1)		
completed (1)	22:20;23:1	22:14	drone (1)	enough (2)
21:1	contributes (1)	delay (1)	20:23	31:23,23
completing (2)	12:3	29:25	during (4)	ensure (2)
18:3;26:24	coordinated (1)	delineations (1)	3:6;6:21;21:7,13	14:6;19:2
components (8)	14:3	13:15	_	enter (1)
14:22;16:9;17:3,16;	coordinating (2)	deliveries (1)	\mathbf{E}	4:4
18:16;20:16,21;21:25	14:11,15	20:16		environmental (28)
computer (1)	coordination (1)	Department (11)	EA (6)	3:14;4:21;5:2;6:24;
4:3	13:9	5:3;8:23;10:12;	9:13;24:8;25:18;	7:5,6,12,17;8:20,22,
concern (1)	cost-effective (1)	5:5;8:25;10:12; 14:1,4;23:4,14,14;	28:4,9,9	24;9:1;13:8;23:5,15,
20:24	7:23		earlier (5)	20,21,25;24:9;25:1,5,
concerns (1)	couple (1)	25:21;26:19;32:9	12:20;15:19;16:22;	12,20,25;26:2;28:16,
28:8	19:17	description (3)	19:14;22:3	17;30:21
concluded (1)	course (1)	4:25;5:15;25:23		environmental-review (3)
		detail (3)	early (1)	` '
32:19	12:25	8:23;11:8,13	12:17	24:7,8,20
conclusion (1)	cover (1)	detailed (1)	east (7)	equipment (3)
11:4	26:3	5:15	5:9;12:2;15:6,18;	17:6,23;21:20
conclusions (1)	created (1)	details (5)	18:5;19:10;32:9	equivalent (2)
9:22	12:9	5:17;10:15,24,25;	economic (1)	12:22,23
condensed (1)	cultural (1)	11:24	30:22	establish (2)
18:13	7:9	determination (1)	efficient (1)	14:5;21:5
condition (2)	cultural-resource (1)	10:6	7:23	established (2)
20:22;22:18	13:17	determined (1)	efforts (1)	18:9;19:5
conditions (2)	curt (1)	26:11	10:20	establishes (1)
	28:11		either (2)	19:3
0:17:9:24				
6:17;9:24	20.11	develop (2)		

345 Kilovolt Transmissi	on Lines in Sherburne C	ounty, MIN		September 1, 2021
			1-11	
establishing (1)	16:21	found (1)	17:11	15:15;30:21
18:7	feel (3)	22:18	hearing (6)	improve (1)
establishment (1)	11:1;25:14;32:12	four (1)	9:3,3,5,16,18,19	22:16
21:7	feet (2)	20:15	Hearings (1)	include (1)
estimated (2)	5:25;17:7	free (2)	9:7	13:14
8:10;10:2	few (5)	11:1;32:12	heating (1)	included (1)
evaluated (1)	7:7;20:20;21:5,15;	friendly (1)	19:2	7:16
7:17	22:23	14:14	Hello (1)	includes (2)
even (1)	figure (1)	further (3)	30:12	6:20;9:24
17:12	31:7	3:9;20:4;31:20	help (2)	including (2)
evening (4)	figures (1)	3.7,20.4,31.20	13:12;24:11	5:16;30:17
		C	· · · · · · · · · · · · · · · · · · ·	
3:13;4:16;15:8;	5:16	G	here's (4)	incorporated (1)
23:12	figuring (1)		17:17;18:23;26:15,	31:11
event (1)	13:15	gave (1)	15	information (20)
4:5	fill (1)	31:23	heritage (1)	3:14,21;4:17;6:20,
everybody (2)	25:17	general (5)	13:21	24;8:13;10:5;11:5,24;
19:8;28:12	film (1)	17:17,24;19:7;	high-efficiency (1)	13:21;22:22;24:18;
everybody's (1)	15:24	20:19;28:5	17:9	25:2;26:8,9;27:11;
22:21	final (6)	generally (7)	high-voltage (2)	29:1,7;31:24;32:4
example (3)	6:15,18;10:2;23:17,	7:4;8:9;9:24;15:9,	5:24;19:13	informed (2)
7:6;15:11;20:1	18,22	17;18:17;22:11	Highway (1)	23:22,23
Examples (1)	finally (2)	generate (1)	19:24	initial (3)
25:4	14:11;21:11		historic (1)	9:24;18:24;21:7
		15:16		
excited (1)	find (1)	generations (1)	7:10	in-person (2)
14:13	26:20	30:18	hold (2)	8:14;27:18
exempted (1)	findings (1)	goal (4)	9:3;19:6	input (2)
6:9	9:22	11:21;14:5;22:1;	holes (1)	24:5;25:3
existing (2)	first (4)	23:21	25:17	inspections (2)
0 , ,				- , ,
16:23;20:9	4:16;14:24;21:5;	goes (1)	home (1)	20:18,23
expected (1)	24:1	16:19	17:10	install (2)
12:15	fixate (1)	Good (6)	homes (1)	18:18,24
experience (1)	22:15	3:1,13;17:4;20:1,	12:22	installation (6)
11:20	flat (1)	22;23:12	hope (3)	16:10;17:23,25;
expertise (1)	17:21	government (5)	21:7;22:17;31:10	18:1,3,12
13:12				
	flip (1)	6:23;24:6,10;25:10;	Hopefully (1)	installed (2)
explain (1)	18:20	26:8	31:23	14:23;18:15
23:5	flyovers (1)	grading (2)	host (2)	installing (1)
	20:24	17:18,22	7:11,24	17:22
\mathbf{F}	focus (3)	great (2)	hour (1)	interconnection (1)
	24:25;28:8,15	17:11;30:14	15:7	18:4
forcilities (1)				
facilities (1)	folks (10)	greater (5)	human (4)	interconnects (1)
3:19	4:8;5:6;7:15;8:3;	5:22,24;8:23;10:15;	7:5;25:4,25;28:16	16:23
facility (2)	9:10;23:7;29:6;30:1;	16:25		interested (2)
5:22;16:24	31:7,18	Grid (7)	I	4:10;6:22
facing (1)	followed (3)	10:18,19;11:12,13;		internally (1)
15:6	4:24;8:21;18:2	17:1;18:6;19:15	idea (1)	17:12
fact-finding (1)			19:8	into (18)
0 , ,	following (6)	ground (6)		
24:22	5:1;10:25;11:17;	12:6;14:23,25;	identified (2)	4:12;5:9;6:17;8:23;
factors (1)	17:24;21:10;22:24	15:23;19:19;21:13	7:21;9:13	10:5;11:16,23;14:8,
7:24	follows (3)	guess (2)	identifies (1)	19,22;16:21;18:14;
facts (2)	6:2;8:16;9:17	4:16;28:11	26:1	19:21;20:3;22:16;
23:24;24:17	foot (1)		identify (1)	23:9;25:3;30:1
*	18:17	H		
fall (1)		П	13:18	inverter (2)
19:20	forgot (1)		impact (3)	16:14;17:8
fallow (1)	26:18	hand (1)	17:13;28:18;30:22	inverters (4)
22:14	form (4)	3:10	impact-mitigation (3)	16:15,20;17:5;
familiar (1)	24:18;26:22,24,25	happen (1)	14:3;22:2,12	19:11
17:20	forms (1)	21:15	impacts (9)	involve (1)
				, ,
far (1)	26:22	happening (1)	7:5,14,20;24:12;	18:12
31:2	forward (8)	31:1	25:5,7,25;26:2;28:16	involved (1)
fax (2)	11:16,21;14:17;	health (2)	implementation (1)	10:10
27:10;32:7	23:1;24:19;25:17;	7:9;22:16	19:2	issue (6)
		,		
fed (1)	26:13;28:13	hear (1)	important (2)	6:16,17;8:1;9:21,

545 Kilovoit 1 raiisiilissi	on Lines in Sherburne C	ounty, MIN		September 1, 202
22.10.6	8.12.10.10.20.24.2.	7.25.12.21.14.0.22.	26.6 6 22.27.19 10.	
23;10:6	8:13;19:19,20;24:3;	7:25;12:21;14:9,22;	26:6,6,23;27:18,19;	more (9)
issued (1)	25:13;26:6,23;27:18;	16:1;19:9,18;20:11,	29:8;31:25;32:16,19	5:15;11:7,13,24,24;
9:2	28:10;29:5;31:25	18;21:12;22:25;	meetings (1)	15:11;17:9,12;18:21
issues (1)	late (1)	25:10;26:19	8:18	morning (1)
28:7	19:19	looking (6)	megawatts (6)	15:6
issuing (1)	later (1)	8:25;13:2;15:4;	5:22;12:1,4,5,21,21	most (4)
8:20	14:9	17:8;19:23;21:9	mention (2)	12:11;15:15;25:1;
items (5)	law (4)	looks (8)	18:11;25:16	30:24
7:7;9:12,12,13,14	7:1;9:6,20,22	7:7,8,12,22;12:5;	mentioned (7)	mostly (1)
	leave (2)	13:7;18:23;19:4	11:25;12:20;13:8;	31:1
J	22:17;29:5	lot (2)	16:22;18:2;21:2;22:2	move (3)
	left (4)	13:10;18:17	merits (1)	11:21;18:15;26:13
jobs (3)	14:24;16:11;18:22;	low (1)	9:9	mow (1)
13:3;30:25;31:4	20:3	16:13	methods (1)	21:8
joining (1)	length (2)	lower (1)	7:19	mowing (1)
32:15	5:13,25	16:18	metro (1)	21:6
judge (5)	leverage (1)		31:3	MPCA (1)
7:2;9:6,7,20,25	11:20	\mathbf{M}	middle (3)	26:17
June (1)	lie (1)		15:2,7;18:24	much (4)
10:3	22:14	mail (2)		
10.5		mail (2)	might (3)	5:15;10:17;27:17;
T 7	life (3)	27:10;32:8	10:13;13:18;21:16	31:17
K	13:5;21:14;22:1	maintained (1)	mile (1)	must (1)
	light (1)	22:8	19:23	7:25
keep (2)	15:22	maintaining (1)	miles (3)	myself (3)
16:2;28:10	light-duty (1)	21:3	5:13,13;12:10	11:6;22:23;32:12
	18:17	maintenance (2)	million (2)	11.0,22.23,32.12
keeping (1)			, ,	NT
20:21	likely (1)	20:13,20	13:2,4	N
Kevin (4)	21:9	makes (1)	mind (1)	
30:7,9,14;31:15	line (7)	6:18	8:4	name (4)
key (1)	9:11;10:11;18:6;	making (3)	minimal (3)	3:18;10:17;23:13;
29:18	26:4;28:10;30:7,8	7:18;21:4;28:2	17:21;20:14,17	28:1
	lines (7)	management (1)	minimizations (1)	National (4)
keypad (1)				
29:21	5:13,24;12:8,14;	14:12	24:13	10:18,19;11:12,13
kilovolts (1)	16:22;19:13;20:19	manner (1)	minimize (3)	native (2)
5:25	link (2)	29:14	7:20;25:6;28:18	18:9;19:5
kind (28)	27:5,6	many (2)	Minnesota (7)	native-pollinator (1)
11:14;12:15,23;	listed (4)	17:19;30:17	3:19;4:4;5:3;23:4;	21:4
13:22;14:19,23;15:6,	17:17;22:22;26:21;	maps (1)	31:2;32:8,10	natural-resource (1)
10,19;16:1,3,17;17:5,	27:2	5:16	minute (1)	13:21
				= '
7,15,17,24;18:15,22;	listen (1)	matter (1)	29:25	navigate (1)
19:3,19,22,25;20:5,7,	4:6	30:4	mischaracterized (2)	4:3
10;21:3,11	listening (2)	matters (1)	25:15;28:22	near (4)
knowledge (1)	12:11;17:20	6:3	missed (1)	20:4;30:17;31:5,9
13:12	listen-only (1)	matting (1)	9:14	need (8)
	3:4	19:2	missing (2)	3:7;6:7,11;13:18,
known (6)				
13:23;14:16,17;	little (9)	may (13)	25:15;28:22	24;16:6;27:12;29:17
15:4;16:12,14	11:13;13:6;14:8;	4:10;5:6;7:5,21;	mitigate (4)	needed (3)
	17:16;18:12,21;19:1;	9:13;10:3;13:24;	7:20;25:6;26:2;	21:1,23;31:6
${f L}$	20:12;21:8	21:16;25:18;28:8;	28:18	needs (4)
	LIUNA (1)	29:23;31:21;32:18	mitigation (1)	6:15;14:25;20:25;
Laborers' (1)	30:15	Maybe (4)	13:24	28:7
30:16	live (2)	21:20;29:24,25;	mitigations (1)	new (3)
Lake (1)	7:15;30:17	31:24	24:12	9:12;21:16,21
12:12	local (7)	mean (1)	mngov/commerce/energyfacilities/#comment (1)	next (11)
land (2)	6:23;13:4;24:5,10;	19:24	32:6	8:19;10:3;11:9;
14:7,9	25:10,10;26:7	meaning (1)	mode (1)	12:7,19;15:13;17:25;
landowner (3)	located (3)	21:19	3:4	18:20;19:16;28:25;
	12:12,14;15:18	medium (1)	module (1)	29:1
13:5;22:4,7				
land-use (1)	longer (3)	16:17	18:2	night (2)
= 0		meeting (24)	moment (3)	8:13;26:23
7:9	5:25;16:17;21:22			
7:9 large (1)	5:25;16:17;21:22 long-term (3)	3:15,22;4:17,22;	3:17;7:2;31:21	night's (4)
			3:17;7:2;31:21	night's (4) 24:3;26:6;27:18;
large (1)	long-term (3)	3:15,22;4:17,22;		

345 Kilovoit 1 ransmissi	on Lines in Sherburne C	ounty, MIN		September 1, 2021
• (4)		. (4)	1110	4.40.00.04.5.40.44
nitrogen (1)	opinions (1)	percent (1)	14:18	4:19,23,24;6:10,14,
22:16	24:18	11:21	polycrystalline (1)	22;7:25;8:19;10:1,9;
noise (4)	opportunities (1)	period (10)	15:25	13:13;18:4,7,22;
7:8;17:9,13;18:12	31:4	6:2;8:15,17,19;	possible (2)	20:12;21:12;23:6;
			21:8;24:12	
noon (1)	opportunity (5)	9:17,19;24:3;26:7;		24:20;30:4;32:14
15:7	9:10;25:2,16;27:21;	28:23;32:1	post-construction (2)	produce (1)
Norah (3)	30:10	permit (4)	14:10;20:11	26:3
29:9,15;31:18	options (1)	5:21;8:1;10:2,7	potential (9)	produced (1)
north (1)	16:2	permits (8)	4:20;7:4;24:12;	16:12
15:9		5:20,23;6:4,16,17,		
	order (3)		25:4,6,25;28:15;31:4,	producing (1)
note (1)	8:6,6;17:18	18;9:24,25	12	21:22
20:24	orderly (1)	permitting (7)	pound (1)	Project (64)
noted (1)	29:14	4:19,23;10:18;	29:18	3:2,16,21;4:18,19,
23:18	oriented (1)	11:17;13:13;14:21;	power (4)	25;5:7,9,16,17,18;6:6,
	15:9	23:6		
notice (2)			12:9;16:19;30:18;	9,16;7:5,21,22;8:1;
3:24;4:2	out (20)	person (2)	31:5	9:9,10,11;10:15,20,
number (1)	6:6;9:2;11:6;12:24;	11:1;30:5	powering (1)	24;11:7,14,15,16,19,
4:5	13:15;14:25;15:11;	personally (1)	12:22	23,25;12:1,4,9,12,16;
nutrients (1)	17:4,6,11,17,19;	27:23	PowerPoint (1)	13:2,5,7;14:6,13,21;
22:15	18:12;19:9,12;20:21,	perspective (1)	4:1	15:4,15;16:3,10;
	25;21:21;22:8;31:7	20:1	power-producing (1)	17:12,19;18:16;19:1,
O	over (7)	phone (6)	17:6	14;21:14,16,18,19;
	3:11;9:5;10:14;	3:23;4:9,10;8:4;	power's (1)	23:2;24:21;25:8,23;
objective (1)	12:25;13:5;22:17;	23:7;29:12	16:25	26:1;30:20;31:3,12;
24:16	23:4	photo (3)	Pranis (6)	32:14
occasional (1)	overview (1)	15:2;16:15,18	30:7,9,12,14;31:13,	projects (3)
21:6	19:8	photos (2)	15	13:10;23:16;30:24
off (2)	own (1)	19:19,21	preparation (2)	project's (2)
15:23,23	27:1	physical (2)	17:18,25	21:22;22:1
Office (1)		26:23;27:18	prepare (1)	property (1)
9:6	P	pile (2)	25:21	22:5
	1			
Once (6)		17:25;18:11	prepared (3)	proposed (9)
9:1,19;16:11;19:5;	panel (3)	piles (1)	4:21;6:25;7:1	3:15;4:18,25;5:7,9,
26:10;29:20	16:12;18:24;21:17	18:15	presentation (12)	17,19;7:19;25:8
one (11)	panelists (1)	piling (1)	3:5,25;4:2,6,9,14,	protection (1)
7:13;11:6;17:2;	22:23	15:1	15;10:11,25;11:4;	13:25
18:13;21:9;26:21,23;	panels (19)	pilings (1)	22:25;27:19	provide (7)
27:24;30:19,19;32:12	5:10;15:12,16,20,	14:25	presentations (1)	4:17;5:15;9:11;
online (2)	22,25;16:8,11,20;	place (2)	5:4	25:3;26:8;30:10;31:4
4:1;32:5	18:10,18;19:5,11,20,	4:12;32:9	presented (1)	provided (2)
only (2)	25;20:6,8,20,23	placed (1)	6:24	6:20;32:4
9:8;27:24	panel's (1)	23:9	presenters (2)	provides (1)
onsite (2)	16:2	plan (11)	29:23;30:5	25:2
		· '		
20:14,15	part (9)	12:17;14:3,5,13,14,	press (10)	providing (3)
onto (1)	6:1,10;15:15;23:6;	17;18:8;21:3;22:2,12,	3:7,10;4:10;8:4;	4:11,22;11:4
16:20	24:1,15;25:9,13;	13	23:8;29:11,17,18,21;	public (18)
open (8)	30:21	planner (1)	30:2	3:14,19,21;5:20;
5:4;8:16,17;16:2;	participants (1)	3:19	pressed (1)	6:14;7:8;8:12;9:3,3,4,
27:7;29:3;30:8;32:1	3:3	plans (1)	8:6	16,17,19;10:9;24:5,
operate (1)	participating (1)	11:18	pretty (5)	10;25:3;26:7
11:18	32:17	plants (3)	13:8;18:13,17;	purchase (1)
operation (3)	parties (2)	7:10;30:19;31:5	27:17;31:2	16:7
12:16;14:10,21	9:15;24:17	Please (9)	previous (1)	purpose (1)
operational (1)	partnered (1)	3:7,10,12;28:1;	22:4	4:16
12:17	11:14	29:9,19,21;30:1;	primary (1)	purposes (1)
operations (3)		32:11	17:5	28:4
	parts (2)			
20:13;21:12,13	24:1;31:1	pm (1)	probably (1)	push (2)
OPERATOR (10)	Paul (1)	32:19	17:20	11:16;14:17
3:1;4:12;8:5;23:9;	32:10	point (3)	proceed (3)	put (3)
27:20;29:13,16;30:5;	payments (1)	6:6;16:21;29:10	4:22;29:23;31:21	6:17;8:5;29:13
31:20;32:17	13:5	pollinator (1)	proceeded (1)	, ,
	per (3)	14:14	9:5	Q
oninion (1)				1
opinion (1)				•
opinion (1) 15:15	18:7;22:1,12	pollinator-certified (1)	process (20)	

345 Kilovoit Transmissi	on Lines in Sherburne C	Junty, WIN		September 1, 2021
				-1:1- (12)
quality (1)	related (1)	restore (1)	screen (2)	slide (12)
7:10	6:8	22:3	7:8;32:4	8:9;11:10;12:7,19;
quantify (1)	relationship (2)	result (1)	second (1)	15:13;18:20;19:16;
11:11	11:11,19	23:22	24:15	26:13;27:12,17;29:1,
questions/comments (1)	relatively (2)	retiring (1)	secure (1)	5
23:10	20:17;31:9	31:6	7:23	Soil (4)
queue (8)	release (1)	reused (1)	seeking (1)	14:16;22:13,16,16
4:12;8:5;23:9;	8:21	21:25	26:5	soils (1)
27:20;29:13;30:1,6;	relevant (1)	re-vegetation (2)	seeks (1)	14:6
31:19	25:1	18:7,22	24:4	Solar (19)
quick (1)	remainder (2)	review (14)	seems (1)	3:2,16,21;5:7,8,10;
10:8	22:25;29:8	5:2;6:14,21;8:10;	30:20	10:15;12:9;14:5;
quickly (3)	remember (1)	10:8,9;13:9,21;14:20;	selected (1)	15:12,16,20;19:1,20;
18:14;20:2,8	28:23	23:5,16,21,21,25	16:3	21:17,22;26:3,20;
quite (3)	remind (3)	right (9)	semiannual (1)	27:7
17:3;20:8,20	4:8;8:3;23:7	3:23;10:2;15:10;	20:22	sort (2)
	reminder (2)	16:15,18;19:3,21;	sensitive (2)	17:13;30:25
R	28:14;29:16	23:11;31:16	13:18,23	sought (1)
	remnant (1)	rigorous (1)	separate (2)	6:5
modz (1)	27:17	13:8		sound (1)
rack (1)			6:8;11:15	
15:5	remote (1)	RISSE (2)	September (5)	17:3
racking (5)	8:15	10:16,17	8:17;27:13;28:24;	sound-producing (1)
15:1,3,11,14;18:1	removed (2)	River (2)	32:2,3	17:6
reach (2)	21:20,25	19:24;20:4	session (2)	south (2)
11:5,21	removing (1)	road (4)	3:6,6	15:9;19:23
read (1)	12:25	12:25;19:24;20:4;	set (2)	Southeast (1)
25:14	renderings (1)	22:8	24:4;27:25	19:24
real (2)	19:17	roads (1)	sets (1)	southern (1)
27:18;30:24	Renewables (4)	15:9	27:20	31:2
really (10)	10:18,19;11:12,13	robust (1)	Seventh (1)	southwestern (1)
11:20;14:5,13;16:5;	repair (1)	14:14	32:9	31:2
20:2,7,13;22:15;	20:25	role (3)	Sherco (7)	speaker (3)
27:23;30:20	repairs (1)	4:24;23:15;25:22	3:2,15,21;5:7;	3:11,11;27:24
reason (1)	20:25	room (1)	10:15;26:20;27:7	speakers' (1)
6:1	report (4)	27:22	Sherco's (1)	3:4
reasons (1)	7:1;9:21,21;31:11	roots (1)	16:24	speaking (1)
7:13	repower (1)	22:14	shopping (1)	10:21
receive (1)	21:18	roster (1)	16:4	specialist (1)
4:19	repowered (1)	29:19	short (1)	10:18
	21:16	route (2)	18:14	species (3)
received (3)				
6:21;31:23;32:2	represent (1)	5:23;20:18	show (1)	13:25;14:15;21:4
recommendation (1)	30:16	routed (1)	27:6	specific (1)
9:23	representatives (2)	16:13	shows (3)	13:24
recommendations (1)	5:1;22:23	run-of-the-mill (1)	8:9,9;13:22	spell (1)
24:19	require (2)	17:8	sides (1)	28:1
recommended (1)	3:9;5:23		15:22	spoke (1)
9:25	required (1)	\mathbf{S}	significant (1)	18:8
record (3)	6:11	~	31:11	St (1)
6:19;10:5;28:2	requirement (1)	safety (1)	similar (1)	32:10
recorded (1)	6:9	7:9	9:4	staff (1)
3:9	requirements (1)			30:24
	• • • • • • • • • • • • • • • • • • • •	scope (8)	site (16)	
recycled (1)	5:2	7:16;8:24;25:24;	5:21;13:16;14:18;	stand (1)
21:25	requires (3)	26:10,10;28:4,8;30:3	15:17;17:11,18,22,24;	29:19
reflected (1)	5:19,21;6:6	scoping (10)	18:16,19;19:8;22:3,	standard (1)
15:22	resources (7)	3:15;8:13,21;24:1,	17;25:8;26:20;28:20	17:8
regarding (1)	7:10,24;13:17,18,	4,9,24,24,25;25:13	sites (1)	standing (1)
10:25	23,25;14:16	Scott (23)	26:4	3:2
registry (1)	respectful (1)	3:11,13,18;10:17;	sitting (1)	stands (1)
26:20	27:25	11:10,25;13:8;23:3,	27:22	28:1
regular (1)	respectively (2)	13,18;24:23;25:19;	six (1)	star (1)
20:15	5:14;12:10	26:14;27:16,19;	20:15	8:12
reiterate (1)	rest (1)	28:13;29:2,4,24;	size (2)	start (3)
31:25	22:14	30:12;31:13,16,22	5:22;6:6	20:2;26:11;29:15
	1	I	1	

545 Kilovoit Transiiliss	ion Lines in Sherburne C	ounty, MIN		September 1, 202
Starting (1)		topics (2)	16:7;22:20	18;18:5;19:10;20:5
			,	
17:18	T	4:20;7:11	upper (1)	western (1)
state (5)		total (1)	16:14	20:5
6:23;10:9;14:18;	table (3)	5:20	use (5)	wetland (2)
28:1;31:1	24:11;25:3;26:9	totalling (1)	22:4,19;24:17;	13:14,16
state's (1)		12:2	26:25,25	wetlands (1)
4:24	talk (2)	touch (6)	Utilities (4)	13:15
	21:14;28:12			
stationery (1)	talked (1)	14:9;15:13;16:9;	3:20;5:20;6:14;	whatnot (1)
27:1	19:14	18:21;20:12;22:12	10:10	9:15
stay (1)	talking (2)	touched (4)		what's (4)
29:8		15:19,19;17:15;	\mathbf{V}	14:17;15:4;16:12,
step (4)	20:15;27:8	20:10	•	14
	tasks (1)		(1)	
8:19;16:15;17:25;	17:17	towards (1)	various (1)	whole (4)
28:25	taxes (1)	19:23	13:11	6:19;7:24;9:9,9
stepping (1)	13:4	Township (2)	vegetation (8)	who's (1)
16:16	technology (2)	12:13,13	14:12;15:23;18:9;	28:2
still (2)		tracking (1)	19:4,6;20:6,7,9	wildlife (1)
9:14;27:25	21:17,21	15:5		7:11
	techs (1)		vegetation-management (3)	
Storm (6)	20:15	tracks (1)	18:8;21:3;22:13	WILLIAM (3)
5:3;8:22;23:4,12,	telephone (3)	15:5	vehicles (1)	10:16,17;32:13
13;32:8	3:7;29:17,21	traffic (2)	18:17	willing (1)
straight (1)		18:18;20:14	viability (1)	22:9
15:7	tenth (1)	transition (1)	14:7	wished (1)
	19:22			
strategies (1)	terms (1)	31:7	view (3)	22:5
26:1	13:1	transmission (10)	19:22;20:6,8	wishes (1)
studied (2)	thanks (3)	5:11,12,24;12:8,13;	viewing (1)	22:6
25:5;28:16		16:22;18:6;19:13;	29:6	withdraw (1)
studies (2)	10:16;29:4;30:9	20:19;26:4	visual (1)	29:18
	thin (1)			
13:10,13	15:24	transmitted (2)	19:17	within (5)
stuff (1)	third (2)	16:17,25	voltage (2)	7:4;14:18;16:23;
20:17	8:11,11	turn (2)	16:13,18	17:12;18:5
submit (3)	three (4)	10:14;23:3		wondering (1)
27:9;32:5,11		Twin (1)	\mathbf{W}	12:5
	5:20;6:4;15:20;		**	
substation (4)	21:6	31:3		work (3)
16:19,21,23;18:5	throughout (3)	two (11)	wages (1)	22:9;23:13;30:15
substations (1)	4:9;15:6,18	5:10,12,23,24;	13:3	worked (1)
19:12	till (2)	11:15;12:7;16:21;	wait (3)	30:18
Suite (1)		19:13;21:6;24:1;	16:5,5;29:25	workers (1)
32:10	8:17;16:5	29:25		30:16
	timeline (1)		waiting (1)	
summary (3)	8:10	type (1)	31:19	working (2)
4:23;5:2,14	times (1)	15:3	watch (2)	20:22;23:1
summer (1)	21:6	types (1)	4:3,6	written (3)
19:20		15:20	water (2)	6:2;8:16;9:17
sun (1)	tires (1)	typically (1)	7:10;14:16	written-comment (1)
	16:4			
15:5	today (1)	6:6	waterway (1)	32:1
sunlight (1)	3:11	_	18:25	_
15:21	today's (1)	\mathbf{U}	way (5)	\mathbf{X}
support (1)		_	5:12;9:14;16:1;	
15:1	3:8	union (2)	26:23;27:25	Xcel (12)
	together (1)			
supporting (1)	11:15	13:3;30:16	ways (2)	4:25;5:1,14;10:12,
10:19	tonight (12)	unique (4)	25:6;28:17	14,19,21;11:12,14,18,
sure (6)	3:20;4:22;5:18;	25:7;28:19;30:20;	Webex (3)	20;22:24
12:4,11;16:6;21:4;	7:14;8:10;10:22;24:2;	31:4	3:25;4:4;29:6	Xcel's (1)
25:12;28:20		unit (1)	W-E-B-E-X (1)	14:13
	26:16;27:8;28:15;	25:10		17.10
surrounding (1)	31:24;32:15		4:4	₹7
17:13	tonight's (4)	units (4)	website (4)	Y
survey (1)	4:17;6:1;8:14;26:6	6:23;24:5,10;26:8	26:19;27:2,3,5	
13:17	tons (1)	up (13)	Wednesday (1)	vear (6)
system (6)		5:5;8:14;15:7;	27:13	10:3;12:22,24;13:1;
	12:24		Welcome (2)	
3.8 7.12.71.12.1	tool (1)	16:15,16;20:4;22:6;		21:6,9
5:8,12;13:21;15:1,	3 7		1 3.7 13	years (1)
5:8,12;13:21;15:1, 3,5	24:22	24:4;26:20;27:25;	3:2,13	
	24:22	29:3,5,8	west (8)	21:5
	3 7			

1	inder 1
1.6 (1)	
12:10 1.7(1) 5:13 100 (2) 5:25;11:21 6 100,000 (1) 12:22 13:10 12:00 19:23 10:00 (1) 12:00 11:00	
12:10 1.7(1) 1.7(1) 5:13 100 (2) 5:25;11:21 6 100,000 (1) 12:22 12:22 132:19 19:23 10:10 12:00 11:20 12:00 11:20 12:00 11:20 12:00 11:20 12:00 11:20 12:00 11:20 12:00 11:20 12:00 11:20 12:00 12:00 11:20 12:00 12:00 12:00 13:30 16 16 17:7 1500 (1) 15:25 150h (1) 15:25 15th (5) 19:24 15th (5) 19:24 15th (2) 12:18 12:18 12:18 12:18 12:18 12:18 13:20 12:18 13:31 11:11 12:10 13:31 13:31 14:11 12:10 13:33 15t (1) 12:23 15th (1) 12:23 15th (2) 12:23 13t (1) 12:23	
1.7 (1) 32:10 32:10 32:10 32:10 6 100 (2) 5:25;11:21 6 100,000 (1) 12:22 6:42 (1) 115th (1) 32:19 60,000 (1) 12:25 30:16 651-539-0109 (1) 463280765 (1) 4:5 8 17:7 1500 (1) 5:25 85 (1) 8:17;27:13;28:24; 32:2,3 9 2 2024 (1) 12:18 2050 (1) 11:22 20-891 (1) 6:8 230 (2) 12:4,5 280 (1) 32:10 3 31.1 (1) 12:10 3.2 (1) 5:12 35000 (1) 12:23 31st (1) 12:23 31st (1) 12:13 345-killovolt (1) 5:12 35000 (1) 12:35 55-year (1) 12:23 355-year (1) 12:25 32:9 32:10 12:25 35000 (1) 12:25 35000 (1) 12:35 355-year (1) 12:35 355-year (1) 12:35 300.000 12:23 355-year (1) 12:25 3500 (1) 12:35 355-year (1) 12:35 300.000 12:23 355-year (1) 12:25 3500 (1) 12:35 355-year (1) 12:25 3500 (1) 12:35 355-year (1) 12:35 32:10 33:10 33	
100 (2) 5:25;11:21 100,000 (1) 12:22 115th (1) 19:23 122,000 (1) 12:25 30:16 30:16 30:16 32:8 4:5 150 (1) 17:7 1500 (1) 5:25 1	
5:25;11:21 100,000 (1) 11:2:22 115th (1) 19:23 30:16 1463280765 (1) 4:5 4:5 4:5 150 (1) 17:7 1500 (1) 5:25 15th (5) 19:24 85 (1) 32:9 2 900 (1) 12:18 2056 (1) 12:18 2050 (1) 12:18 2050 (1) 12:18 2050 (1) 12:18 2050 (1) 32:10 3 3 3.1 (1) 12:10 3.2 (1) 5:12 3500,000 (1) 12:23 31st (1) 12:23 31st (1) 12:23 3500 (1) 12:33 35-year (1)	
100,000 (1) 12:22 13:40 (1) 19:23 12,000 (1) 19:23 14:5 (60,000 (1) 12:25 30:16 45:5 (651-539.0109 (1) 32:8 45:5 (80 (1) 5:25 150 (1) 5:25 150 (1) 5:25 150 (1) 19:24 85 (1) 19:24 85 (1) 19:24 85 (1) 19:24 85 (1) 19:24 85 (1) 19:24 85 (1) 19:24 85 (1) 19:24 85 (1) 19:24 85 (1) 19:24 85 (1) 19:24 85 (1) 19:24 85 (1) 19:24 85 (1) 19:24 85 (1) 19:24 85 (1) 32:9 900 (1) 11:22 900 (1) 11:22 100 12:10 12:10 12:10 12:10 12:23 31st (1) 12:23 31st (1) 12:23 31st (1) 12:23 3500 (1) 11:2:3 55-year (1)	
12:22 115th (1) 19:23 12:000 (1) 30:16 651-539-0109 (1) 32:8 4:5 150 (1) 17:7 150 (1) 17:7 150 (1) 17:7 150 (1) 17:19 2024 (1) 12:18 2059 (1) 11:22 20-891 (1) 6:8 230 (2) 12:4,5 280 (1) 32:10 3 3 3.1 (1) 12:10 3.2 (1) 5:12 3500 (1) 12:23 31st (1) 12:23 3500 (1) 12:23 3500 (1) 12:35-year (1)	
115th (1) 19:23 10:00 (1) 30:16 44:5 4:5 150 (1) 17:7 1500 (1) 17:7 1500 (1) 17:7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
19:23 12:000 (1) 12:000 (1) 10:16 4:5 150 (1) 17:7 1500 (1) 5:25 15th (5) 15th (5) 12:18 2020(1) 11:22 20:29 (1) 12:18 20:00 (1) 12:18 20:00 (1) 13:3 33:1 (1) 12:10 32:10 33:1 (1) 12:10 32:10 33:1 (1) 12:10 32:10 33:1 (1) 12:10 32:10 33:1 (1) 12:10 32:10 33:1 (1) 12:10 32:10 33:10 12:10 33:10 12:10 34:10 12:10 35:12 35:13 300,000 (1) 12:23 31:1(1) 12:18 435-killooth (1) 5:12 5:12 5:13 5:13 5:10 5:12 5:13 5:13 5:10 5:13 5:13 5:10 5:13 5:10 5:13 5:13 5:10 5:12 5:13 5:10 5:12 5:13 5:13 5:10 5:12 5:13 5:13 5:10 5:12 5:13 5:10 5:12 5:13 5:10 5:12 5:13 5:10 5:12 5:13 5:13 5:14 5:15 5:15 5:15 5:15 5:15 5:16 5:17 5:18 5:19 5:	
12.20 (1) 30:16 (463280765 (1) 4:5 (50 (1) 17:7 (500 (1) 5:25 (5) (5) (1) 32:8 (8 (1) 5:25 (5) (1) 32:9 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	
463280765 (1) 32:8	
4:5 8 17:77 1500 (1) 5:25 19:24 15th (5) 85 (1) 19:24 15th (5) 82:17;27:13;28:24; 32:9 9 900 (1) 12:18 13:3 13:3 13:10 3 13:10 3 13:10 3 13:10 12:23 13tt (1) 12:18 145-kilovolt (1) 12:18 145-kilovolt (1) 12:3 15:45	
150 (1) 17:7 15:00 (1) 5:25 15th (5) 8:17;27:13;28:24; 32:2,3 9	
17:7 1500 (1) 5:25 19:24 85 (1) 19:24 85 (1) 32:9 9 9 10 10 12:18 20.891 (1) 12:4 5:80 (1) 32:10 3 3 3 3 3 3 3 3 3	
1500 (1) 19.24 18 19.24 18 19.24 18 19.24 18 19.24	
5:25 Sth (5) 85 (1) 32:9 9 9 9 9 9 9 9 9 9	
8:17;27:13;28:24; 32:2,3 2 2024 (1) 12:18 2050 (1) 11:22 20-891 (1) 6:8 230 (2) 12:4,5 280 (1) 32:10 3 3.1 (1) 12:10 3.2 (1) 5:13 500,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 5500 (1) 12:3 35-year (1)	
32:2,3 2 2024 (1) 12:18 2050 (1) 11:22 20-891 (1) 6:8 230 (2) 12:4,5 280 (1) 32:10 3 3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
2 2024 (1) 12:18 2050 (1) 11:22 20-891 (1) 6:8 230 (2) 12:4,5 280 (1) 32:10 3 3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
2 2024 (1) 12:18 2050 (1) 11:22 20-891 (1) 6:8 230 (2) 12:4,5 280 (1) 32:10 3 3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
2024 (1) 12:18 2050 (1) 11:22 20-891 (1) 6:8 230 (2) 12:4,5 280 (1) 32:10 3 3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
2024 (1) 12:18 2050 (1) 11:22 20-891 (1) 6:8 230 (2) 12:4,5 280 (1) 32:10 3 3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 355-year (1)	
2050 (1) 11:22 20-891 (1) 6:8 230 (2) 12:4,5 280 (1) 32:10 3 3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 355-year (1)	
11:22 20-891 (1) 6:8 230 (2) 12:4,5 280 (1) 32:10 3 3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
20-891 (1) 6:8 230 (2) 12:4,5 280 (1) 32:10 3 3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
6:8 230 (2) 12:4,5 280 (1) 32:10 3 3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
230 (2) 12:4,5 280 (1) 32:10 3 3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
12:4,5 280 (1) 32:10 3 3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
32:10 3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
3.1 (1) 12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
12:10 3.2 (1) 5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
5:13 300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
300,000 (1) 12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
12:23 31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
31st (1) 12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
12:18 345-kilovolt (1) 5:12 3500 (1) 12:3 35-year (1)	
5:12 3500 (1) 12:3 35-year (1)	
3500 (1) 12:3 35-year (1)	
12:3 35-year (1)	
35-year (1)	
13:5	
4	
4	
460 (4)	
12:1,5,20,21	
460-megawatt (1)	
5:8	