

## Oral Public Meeting Comments Received

### Iron Range - St. Louis County - Arrowhead 345 kV Transmission Line Project

Docket Number: E015/CN-25-111; E015/TL-25-112

#### Public Meeting Transcripts

1. April 6, 2026 - Grand Rapids, Itasca County, MN at 6:00 p.m.
  - a. Includes eight documents referenced during oral comments
2. April 7, 2026 - Floodwood, St. Louis County, MN at 12:00 p.m.
3. April 7, 2026 - Hermantown, St. Louis County, MN at 6:00 p.m.
  - a. Includes transcript of oral comments received in private room at meeting venue
4. April 9, 2026 - Virtual, Online Meeting at 6:00 p.m.

1 PUBLIC INFORMATION AND SCOPING MEETINGS

2  
3 Docket Numbers E015/CN-25-111; E015/TL-25-112

4  
5 BEFORE THE COURT OF ADMINISTRATIVE HEARINGS  
6 FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION

7  
8 In the Matter of the Application of  
9 Minnesota Power and American Transmission Company,  
10 LLC for a Certificate of Need and Route Permit for  
11 the Iron Range - St. Louis County - Arrowhead 345 kV  
12 Transmission Project.

13  
14  
15 Taken at Timberlake Lodge  
16 144 SE 17th Street  
Grand Rapids, MN 55744

17  
18 April 6, 2026  
19 6:00 P.M.

20  
21  
22  
23  
24 REPORTER: Jonna Schrupp, Stenographic Court Reporter

Arrowhead Transmission Project - 25-111 25-112 - Grand Rapids - 4-6-262

1	<b>PRESENTATIONS:</b>	<b>PAGE</b>
2	Ms. Maxon	3
3	Mr. Janke	6
4	Mr. Winter	8
5	Mr. Janke	14
6	Ms. Johnson	20
7		
8	<b>SPEAKERS:</b>	
9	Ms. Overland	28
10	Mr. Voit	36
11	Mr. Treasure	37
12	Ms. Overland	40
13		
14	<b>EXHIBITS:</b>	
15	1 Presidential Permit	33
16	2 Table 13	34
17	3 Capital Project High-Level Timeline	35
18	4 Ex Parte Communication Report	36
19	5 Interactive Power System Simulator	40
20	6 Square Butte Transmission	41
21	7 King-Eau Clair Arpin, Table 1	42
22	8 Prairie Island-Byron-Adams, Table 1	42
23		
24	WHEREUPON, the following proceedings	
25	were duly had and entered of record, to wit:	

1 MS. SAARAH MAXON: Hello, everybody.  
2 Thank you for joining us today. This is the Public  
3 Information and Scoping Meeting for the proposed  
4 Iron Range Arrowhead 345 kilovolt transmission line  
5 project.

6 The in-person meetings will be held today  
7 and tomorrow at three locations along the proposed  
8 path of the transmission line.

9 Additionally we're going to hold a  
10 virtual meeting this Thursday, April 9th. Each  
11 meeting will cover the same topics and present the  
12 same materials.

13 I just wanted to mention that there are  
14 two docket numbers associated with this project for  
15 the Public Utilities Commission. The first docket  
16 number is CN-25-111, and the second docket number is  
17 TL-25-112.

18 So I'd like to start off with just a  
19 quick agenda of the meeting. My name is Saarah  
20 Maxon and I'm an analyst at the Public Utilities  
21 Commission. I will be giving a brief introduction  
22 before I pass things on to the Applicants to give a  
23 brief description of the project. Then they will  
24 hand things back over to and my colleague at the  
25 Commission, Emily Johnson, will talk about the

1 permit application review process, and then we'll  
2 end the meeting tonight with a comment and question  
3 section.

4 So before we kick things off I just want  
5 to cover some meeting ground rules. We ask that you  
6 please be respectful to others, including both  
7 presenters and commenters. We want to make sure we  
8 have an opportunity to hear from everybody who wants  
9 to comment today.

10 Additionally, we ask that when we do get  
11 into the questions and comment portion of the  
12 meeting that only one person speaks at a time. We  
13 have a court reporter here who is transcribing the  
14 meeting, and it's really important that everybody is  
15 heard and the court reporter has an accurate record  
16 to help the Commissioners make informed decisions.

17 Next slide.

18 So to get to why we are here today. We  
19 are not for or against the proposed project. We are  
20 here to receive public input and to compile a record  
21 for the Commission's permit decision.

22 You can participate by providing comments  
23 or asking questions of State staff about the  
24 permitting review process or ask the Applicant about  
25 the proposed project.

1           The commissioners really want to hear  
2 from you and what you have to say about the project  
3 and how the local community feels. They do read  
4 through all the comments.

5           Additionally, we are joined tonight by  
6 one commissioner, Commissioner Tuma, who is here to  
7 just listen to the meeting and make sure he learns  
8 along with everybody else.

9           And then I'd also like to provide a brief  
10 overview of what we do at the Minnesota Public  
11 Utilities Commission. We regulate electric, natural  
12 gas and landline utilities. We also issue site and  
13 route permits for large electrical facilities.  
14 There are five commissioners appointed by the  
15 governor and confirmed by the senate, and these are  
16 the individuals who ultimately decide the permit  
17 issue.

18           Moving on to this slide.

19           The proposed project, as I said, is a 345  
20 kilovolt transmission line. It will require two  
21 approvals from the Commission, a certificate of need  
22 and a route permit. Both the certificate of need  
23 and route permit will involve environmental review.  
24 Under the certificate of need proceeding our staff  
25 at the Commission will prepare an environmental

1 report. Separately the Applicants have already  
2 prepared an environmental assessment and it was  
3 included in their application for the proposed  
4 project and you can find a copy of this on the  
5 Commission's website.

6 This concludes my portion of the  
7 presentation. Later on my colleague Emily will  
8 discuss the review process in more detail but for  
9 now I'll hand things off to the Applicants to  
10 continue on. Thank you.

11 MR. DREW JANKE: Hi, everyone. My name  
12 is Drew Janke. I'm an environmental compliance  
13 specialist with Minnesota Power.

14 We're here today, as Saarah mentioned, to  
15 talk about the Iron Range to St. Louis County to  
16 Arrowhead, or ISA project. It is being proposed by  
17 Minnesota Power and their co-applicants American  
18 Transmission Company, or ATC.

19 Thank you.

20 Starting here with a brief overview slide  
21 on Minnesota Power and who we are. As you can see  
22 on the figure there, our service territory covers  
23 the majority of the northeast portion of Minnesota.  
24 Currently we have just over 1,600 megawatts of  
25 electric generation capability, about 8,700 miles of

1 transmission and distribution lines.

2 We have met or exceeded the Minnesota  
3 Energy Savings Goals for the past 16 years. We were  
4 the first utility in the state to deliver 50 percent  
5 renewable energy to our customers.

6 In total we serve about 150,000  
7 customers, including some of the nations largest  
8 industrial customers, and 14 municipalities.

9 As I mentioned, we do have a co-applicant  
10 on this project, American Transmission Company, or  
11 ATC. And ATC is essentially a utility for  
12 utilities. Generally their area of focus is  
13 primarily in the transmission of electricity. They  
14 are headquartered in Wisconsin, and you can see  
15 their service territory in the figure above there.

16 Back to the ISA project. This is just a  
17 general overview. So you get a frame of reference  
18 for where we're at between the Iron Range substation  
19 and then down to the St. Louis County and Arrowhead  
20 substations.

21 The project itself is an approximately 67  
22 mile long double circuit capable 345 kilovolt  
23 transmission line. It will be on overhead  
24 structures.

25 I'll hand it over to Christian here.

1           MR. CHRISTIAN WINTER: I think I'm going  
2 to stand up so I can see better.

3           My name is Christian Winter. I am the  
4 manager of regional transmission planning for  
5 Minnesota Power. So my team is responsible for the  
6 long term planning of our wire systems here, and I'm  
7 going to give you some background on the need for  
8 the project, as well as a couple of particular  
9 points about the project as we go forward here.

10           We can go to the next slide.

11           The project is part of a portfolio of  
12 regional transmission projects that was approved by  
13 the region's grid operator, the Midcontinent  
14 Independent System Operator, back in December of  
15 2024.

16           This portfolio, you see some gray lines,  
17 some green, some red. You see the project outlined  
18 at the top. The gray lines are actually the first  
19 -- they use the term Tranche, you can make up your  
20 own mind how much you like that term. It's a  
21 portfolio of projects that was approved in 2022  
22 called Tranche 1, and this project is part of  
23 Tranche 2 which was approved by the MISO board in  
24 2024.

25           All these projects together, they're

1 designed to make sure that we have a reliable  
2 regional interstate transmission system over the  
3 long term.

4 MISO is looking at the next couple of  
5 decades and looking at how -- the way that we use  
6 and generate electricity is changing and is  
7 projected to change, has already changed in some  
8 cases. Essentially what they're trying to do is to  
9 make sure we have a grid that can facilitate all  
10 those ways that we use and produce electricity and  
11 are going to do it in the future.

12 The way I like to characterize this, when  
13 you look at this, a lot of our existing  
14 infrastructure transmission lines that we use today  
15 were built between the 50s and the 70s, 1950s and  
16 1970s. That's kind of like our state and local  
17 highway system. And when you look at this LRTP  
18 portfolio what we're doing is we need an interstate  
19 transmission. We need the freeway. And so that's,  
20 uh, when you see these big power lines being  
21 overlaid, that's essentially what's happening. The  
22 interstate highway grid is being constructed because  
23 the way, again, MISO's reliability imperative says  
24 on there is the way now electricity is produced and  
25 continues to change.

1           Now, this project was approved by the  
2 MISO board, and then NT and ATC are the transmission  
3 owners in the state of Minnesota here associated  
4 with the project, have an obligation to deliver it  
5 now as part of this broader portfolio.

6           So this portfolio builds on regional  
7 planning efforts that have been in progress for more  
8 than a decade. So I think that's really important.  
9 We'll come back to that point in a little bit, but  
10 it's not -- this particular transmission project  
11 isn't intended to address the needs of any  
12 individual customer or generator, it's about  
13 regional grid reliability and improving that  
14 network.

15           We can go to the next slide here.

16           You see some of the needs for the project  
17 as we've presented them. So there in the  
18 application, don't worry, you don't have to read the  
19 whole thing, this part of it up front here is where  
20 you find the stuff on the need, a lot of it is maps.

21           The needs -- so there's two sort of broad  
22 categories. Needs are identified by MISO as part of  
23 the portfolio, the LRTP portfolio, in assessing grid  
24 reliability in the upper midwest, increasing the  
25 efficiency of the grid, reducing congestions, like

1 traffic jams that may happen on the grid, and then  
2 meeting the growing demand for reliable clean energy  
3 in the upper midwest.

4 We took MISO's work and we also  
5 investigated, okay, for this particular project what  
6 does it do for the region, what does it do for our  
7 local grid. So you can read about that in here, but  
8 essentially this project facilitates transfers of  
9 electricity, as part of what happens is you get a  
10 lot of variability in the direction of power flow,  
11 amount of power flow.

12 So this project works in a lot of ways to  
13 increase our flexibility to move power around in the  
14 region from west to east, north to south, south to  
15 north, east to west, as you see kind of illustrated  
16 graphically there, and then enhances local grid  
17 reliability, giving some redundant paths for power  
18 flow in through northern Minnesota.

19 All right. Next slide.

20 So a couple of specific topics that we  
21 want to address that are addressed. This first one  
22 is addressed in the application. So there is a --  
23 what's called an 800 MVA limit. That sounds really  
24 engineering, but that's just an amount of power that  
25 is limited, there's a regulatory limit on the ATC

1 Arrowhead substation of the amount of power that can  
2 flow through that substation into Wisconsin.

3 That limit goes back to when that  
4 transmission line was built and first permitted in  
5 the early 2000s, and the concern at that time and  
6 kind of the history in the application was over  
7 increased transfers, specifically of coal-fired  
8 generation.

9 And if you think back to it, Minnesota  
10 Power, 25 years ago Minnesota Power was 95 percent  
11 coal-fired electricity, as our portfolio. That's  
12 how we served our customers. And as Drew said  
13 earlier, now more recently we were the first utility  
14 in Minnesota that served our customers with over 50  
15 percent renewable energy. We're north of that now  
16 on a regular basis. So that's just kind of in a  
17 nugget what's changed.

18 That concern, as you see there, it's a  
19 different situation today than it was in the early  
20 2000s.

21 So when MISO looks at the LRTP portfolio,  
22 this project in particular as part of it, part of  
23 that goal is to increase regional transfers, and to  
24 take away some of those limitations, whether they're  
25 engineering limitation or a regulatory limitation

1 like this 800 MVA. So we've proposed to remove that  
2 800 MVA limit. It is necessary to do that to  
3 achieve the reasonable benefits of the project as  
4 identified by MISO. So you'll see that in our  
5 application. We know there's been a lot of  
6 discussion on that in the docket as well. So we  
7 wanted to take the opportunity to, again, to  
8 reiterate why that's important for the project.

9 All right. Next one and I think the last  
10 one that I'll cover.

11 Another thing that there's been a lot of  
12 conversation about in the docket, especially on the  
13 southern end -- folks based on the southern end of  
14 the project, is data centers, and there have been a  
15 number of comments in the docket about data centers  
16 and how this may or may not relate to a proposed  
17 data center in Hermantown.

18 We just wanted to reiterate, from our  
19 perspective, we're here today because this ISA  
20 project was developed, proposed by MISO and approved  
21 by MISO for regional liability purposes back in  
22 December 2024.

23 Like I said earlier, that's not looking  
24 specifically at any individual customer need or any  
25 individual generator need, it's looking at what the

1 region needs for the long haul. And just like other  
2 projects that have been proposed previously and  
3 considered by the Commission, this project is  
4 proposed to support grid reliability and not any  
5 individual customer or data center.

6 If there was no proposed data center in  
7 Hermantown we'd still be here today proposing this  
8 project, because that data center is no where  
9 contemplated in what MISO is looking at, you know,  
10 no where specifically contemplated in what MISO is  
11 looking at in LRTP. So we wanted to just state that  
12 clearly here.

13 We give the background on the need in the  
14 application and where it came from. That data  
15 center is going to have its own proceedings, you see  
16 there an electric service agreement petition has  
17 been filed with the Commission, and that would be  
18 the place to address any issues related to that.

19 I think I will hand it back to Drew to  
20 cover the rest of the routing and environmental  
21 part.

22 MR. DREW JANKE: So for the ISA project,  
23 as part of the route permit application, we  
24 developed a proposed route, which is shown on the  
25 screen here, so to the far northwest is the Iron

1 Range substation, just north of Warba and east of  
2 Grand Rapids, and then on the southeastern end are a  
3 couple of substations, the St. Louis County, just  
4 outside of Hermantown, and then adjacent to that is  
5 ATC's Arrowhead substation. So those are the three  
6 substations associated with this project.

7 The proposed route itself is about 92  
8 percent collocated alongside or within existing high  
9 voltage line right-of-way. And so we've broken the  
10 proposed route down into three different segments.

11 Starting with segment 1, which is the far  
12 northwest segment outlined in orange there. That  
13 segment runs from the Iron Range substation to a  
14 point just north of the St. Louis river, just  
15 outside of Floodwood. For that segment, the  
16 collocation would be adjacent to an existing  
17 right-of-way, and we would initially hang the single  
18 circuit on these ISA structures.

19 Segment 2, outlined in blue, runs from  
20 that point just north of the St. Louis river down to  
21 the St. Louis County substation. For that segment  
22 we are largely proposing to overtake an existing 230  
23 kilovolt right-of-way and take those wires or  
24 conductors and string on the other side of the  
25 double circuit capable ISA transmission line

1 structures.

2           So initially that extra or existing  
3 circuit would operate at 230 kilovolts as it is  
4 currently operating, but be capable of operation at  
5 345 kilovolts at some point in the future.

6           And then our third and final segment is a  
7 smaller one. It's about one and a half miles  
8 between the St. Louis substation and ATC's Arrowhead  
9 substation, and that is proposed as 345 kilovolt  
10 double circuit for the ISA project.

11           Here's a high level project overview and  
12 timeline. So 2025 was really heavy in the  
13 stakeholder engagement and routing process. In 2025  
14 we held a couple of rounds of open houses along our  
15 potential routing areas. Moving ahead into this  
16 year, 2026, and for the next couple of years, we'll  
17 be heavy obviously in the permitting aspect of  
18 things. Alongside that will be detailed  
19 engineering, begin discussion with landowners to  
20 discuss easement options, as well as environmental  
21 surveys. And that public engagement piece will  
22 continue on through the process here.

23           Assuming all goes well, we would begin  
24 construction in 2029 and have this project in  
25 service by 2033.

1           As Saarah mentioned at the beginning of  
2 the presentation here, we the Applicants prepared an  
3 environmental assessment for the proposed project,  
4 and I guess just to level set here, to describe what  
5 an environment assessment is and isn't.

6           So what it does is describe the proposed  
7 project and any alternatives there were considered,  
8 and studies the potential human and environmental  
9 impacts of the proposed routes.

10           It also identifies strategies to, A,  
11 avoid, and if avoidance isn't possible minimize and  
12 mitigate for those impacts. It does list impacts  
13 that can't be avoided, but what it does not do is  
14 advocate for or against the project itself.

15           I realize this slide is a bit busy here,  
16 but as I mentioned, what the environmental  
17 assessment does is look at different resources, both  
18 from a human and environmental impact standpoint.  
19 Here you can see a list some of those resources that  
20 were evaluated within the environmental assessment  
21 that was included in the application.

22           So here, the next few slides are again a  
23 bit busy and I won't go through them verbatim, but  
24 just for reference, some of the resources that we  
25 look at beginning with aesthetics and recreation

1 resources. We realize these ISA structures are  
2 going to be quite a bit taller than what might be  
3 existing. So we do discuss those impacts and then  
4 we don't anticipate a ton of mitigation required.  
5 We've reduced those impacts by collocating the  
6 project as much as we reasonably could.

7 Another couple of resources that were  
8 evaluated within the EA include public services and  
9 transportation and land based economies. Again, I  
10 won't go through this in too much detail, but we  
11 will be crossing roads and right-of-way as we go  
12 along the project and will be coordinating with the  
13 relevant road authorities.

14 Then for the land based economies side,  
15 we have developed and actually filed an updated  
16 agricultural impact mitigation plan if you folks are  
17 interested in looking at that.

18 A couple more resources here,  
19 archeological resources and water resources. So we  
20 consult with a variety of agencies for both of these  
21 resources, from the archeological standpoint we  
22 consult fairly heavy with the state preservation  
23 office, as well as Tribal Nations within our area,  
24 and then water resources we coordinate fairly  
25 closely with the U.S. Army Corps of Engineers, as

1 well as the Minnesota Department of Natural  
2 Resources and the Pollution Control Agency. This is  
3 more to come but we evaluated what we could in the  
4 environmental assessment.

5 Then further on the natural resources  
6 side of things we evaluated resources from a  
7 wildlife perspective as well as a vegetation  
8 perspective. So certainly there will be impacts to  
9 vegetation for clearing of right-of-way. We do as  
10 part of the process develop a vegetation management  
11 plan that gets reviewed by the State's inner agency  
12 working group, so that is under way, or to come I  
13 should say.

14 But all of these resources are discussed  
15 in more detail in that environmental assessment.

16 I just have a couple more slides here.

17 So like I mentioned, we were really heavy  
18 on the stakeholder engagement piece in 2025, and  
19 here we've got, you know, a list of activities that  
20 we undertook and will continue to go through  
21 stakeholder engagement.

22 We had a couple rounds of public open  
23 houses, as I mentioned, first one being in May and  
24 the second one I believe was in August, and then  
25 in-person meetings, we've been out talking with, you

1 know, the county boards, township boards and the  
2 relevant state and federal agencies as well, so this  
3 will continue.

4 And then we did launch a project website  
5 in May of 2025, and that's been updated as we  
6 progress through the routing process here. It will  
7 continue to be updated as we go along in the  
8 process, but on that website you'll find a few ways  
9 to get in touch with us. We've got the project  
10 e-mail hotline, as well as the phone number hotline,  
11 and you can leave comments directly for us on the  
12 project website.

13 I will hand it back over to you, Saarah.

14 MS. EMILY JOHNSON: Good evening,  
15 everyone. My name is Emily Johnson. I'm the  
16 environmental review manager with the Public  
17 Utilities Commission that's assigned to this  
18 project.

19 I first want to thank you all for taking  
20 your time to be here tonight. Our staff relies on  
21 your participation and input to build a complete  
22 record for the decision making process.

23 Tonight I will discuss the State's  
24 permitting process and the ways that you can provide  
25 input on this project to help inform the process.

1           So as the Commission decides on a permit,  
2     it considers the human and environmental impacts of  
3     the project and ways to reduce those impacts.  
4     Impacts can include things like construction noise,  
5     aesthetic impacts, such as tree clearing or new  
6     infrastructure, wildlife, habitat, vegetation and so  
7     on.

8           Mitigation measures that we apply to  
9     projects can include things like limiting  
10    construction to daylight hours, alternative routing,  
11    tree replacement plans, and more.

12          The Commission applies standard and  
13    special permit conditions to address impacts and  
14    tracks compliance throughout the life of the  
15    project, if it is permitted, and you can help by  
16    providing input about local unique characteristics,  
17    impacts and ways to reduce those impacts.

18          We recognize that people local to the  
19    project know that area the best. So we really rely  
20    on your input to help shape the project.

21          Next slide.

22          So the process begins with a sample  
23    permit, it's a starting point of our process and  
24    that includes standard permit conditions that apply  
25    to all high voltage transmission projects. There is

1 a copy of the sample permit in the back of the room  
2 if you'd like to take a look at it.

3 After the comment period concludes and we  
4 gather input from you we use the input we received  
5 to develop draft permits that will contain special  
6 permit conditions specific to the project being  
7 proposed.

8 It's important to note that a draft  
9 permit does not allow the Applicant to construct the  
10 project, it's just a starting point for the  
11 Commission's consideration.

12 This will be -- there will be another  
13 opportunity to comment later in the process and at  
14 that point we will seek comments on the draft  
15 permit.

16 Next slide.

17 So this is just a visual representation  
18 of what I just spoke about. We start with the  
19 sample permit that's the same for all transmission  
20 projects. We use public input to develop the draft  
21 permit for the project and then ultimately the final  
22 permit is what the Commission will make its decision  
23 on.

24 Next slide.

25 By law applications for route permits

1 must include an environmental assessment that  
2 contains information on human and environmental  
3 impacts and ways to mitigate those impacts. The EA  
4 was included as appendix E, as they mentioned, of  
5 the application. The EA is available here tonight,  
6 as well as at several libraries, and if you'd like  
7 the locations I can provide those for you later.  
8 It's also available electronically on the project's  
9 web page and on the eDockets filing system.

10 We ask you to review it or just review  
11 some sections, because it is quite lengthy, and  
12 provide input as to whether there are any  
13 environmental impacts or any characteristics that  
14 you notice are missing from the EA, and if there are  
15 any mitigation measures that you would like to see  
16 evaluated further.

17 So this input will help us determine  
18 whether an EA addendum is needed and that is  
19 something that our staff would prepare.

20 Next slide.

21 Saarah mentioned earlier that this  
22 project is a combined route permit and certificate  
23 of need application. Certificate of need  
24 proceedings require that the Commission staff  
25 prepare an environmental report.

1           Environmental reports describe the  
2 proposed project and any system alternatives that  
3 still will meet the stated need of the project.  
4 These alternatives are typically focused on size,  
5 type and timing. Some examples of size could  
6 include different voltages or lengths. Different  
7 types could include structure types and  
8 configurations, alternative routing or different  
9 non-transmission energy facilities. Timing can also  
10 mean that the project should be sooner, later or not  
11 happen at all.

12           So what we're looking for during this  
13 comment period is, Are there other ways to meet the  
14 stated need of the project instead of the proposed  
15 transmission line, and if so what other alternatives  
16 to the project should be studied.

17           This is just a summary slide of what I  
18 just discussed and the general topics we're looking  
19 for at this point in the process for comments.

20           The first is, Are there potential human  
21 and environmental impacts, unique characteristics or  
22 mitigation measures, including route alternatives  
23 for the proposed project needing further development  
24 in an EA addendum?

25           The second, Are there practical methods

1 to minimize, mitigate or avoid potential impacts  
2 that the Commission should include as conditions in  
3 a draft route permit?

4 And the third, Are there other ways to  
5 meet the stated need of the project instead of the  
6 proposed transmission line? If so, what  
7 alternatives to the project should be studied.

8 So what happens next, based on the  
9 information in the record, including the comments we  
10 receive during these public comment period -- this  
11 public comment period, the Commission will make  
12 three preliminary determinations.

13 The first, Is an EA addendum necessary?

14 The second, What conditions should the  
15 Commission include in the draft permit?

16 And third, What alternatives to the  
17 project should be included in the scope of the  
18 certificate of need environmental report.

19 So this slide outlines the key milestones  
20 in this case, permitting process. The rows  
21 highlighted in blue represent opportunities for  
22 public comments. So you can see this is not the  
23 only opportunity, we will be back out here later and  
24 I'll talk about that in a minute.

25 The star represents where we are

1 currently at in the process. The Commission  
2 accepted the application as complete on January  
3 20th, officially starting the review process.

4 We're holding the public meetings this  
5 week and the comment period will remain open until  
6 April 23rd.

7 In June or July, and based on public  
8 input, the Commission will make those three  
9 determinations we talked about.

10 We expect that a draft permit and  
11 environmental report would be issued in fall of  
12 2026, along with the EA addendum if its needed.

13 The public hearings are expected to fall  
14 in the fall, along with a second comment period, and  
15 that's where you can provide input on the draft  
16 permit and the other reports that follow.

17 After the hearing comment period closes a  
18 public hearing report would be filed, likely by an  
19 administrative law judge who will oversee the  
20 hearings for this project.

21 The Commission will consider the entire  
22 record before making a decision on both the  
23 certificate of need and route permit applications,  
24 likely in the fall or winter of 2026, and that  
25 decision would be made in an open public meeting

1 that you're welcome to attend.

2 Next slide.

3 So how to comment. You can provide  
4 verbal comments at today's meeting. You could  
5 complete and present a physical comment form,  
6 they're available in the back of the room. You can  
7 comment online at this link provided here. You can  
8 e-mail directly or send me physical mail and I can  
9 file your comments to the record for you. My  
10 contact card is in the back of the room, as well as  
11 Saarah's and we're also happy to be available to  
12 answer questions at any time that you have about the  
13 process.

14 The comment period ends April 23rd at  
15 4:30 p.m., so we do ask that you get your comments  
16 in by that time.

17 Next slide.

18 So we will open it up here for comments,  
19 just some commenting etiquette. We ask that one  
20 speaker come to the mike at a time. When you come  
21 to the mike we ask that you please state and spell  
22 your name for the court reporter. We don't have  
23 many people here tonight, so I'm not going to limit  
24 timing on comments, but we just want to make sure  
25 everyone is heard. So we just ask that you maintain

1 respect for everybody. So if somebody is at the  
2 mike -- speaking at the mike please wait until it's  
3 your turn to speak, and that's all I have to say.

4 I think we can open it up for comments.  
5 I've just got two signed up and then we can open it  
6 up to others who want to speak.

7 The first is Carol Overland.

8 MS. CAROL OVERLAND: Carol Overland,  
9 O-v-e-r-l-a-n-d.

10 I'm from Red Wing, Minnesota. I'm here  
11 representing World Organization of Landowner  
12 Freedom, or WOLF. We were intervenors in the  
13 Arrowhead project starting in 1999 up through 2004.  
14 And I don't think any of you folks, and very few of  
15 Commission folks were around back then. And we are  
16 strong believers in keeping that 800 MVA limit.

17 First, the environmental assessment and  
18 environmental report should address the validity of  
19 the stated need. We keep seeing that over and over,  
20 stated need, stated need, and what that does is  
21 really limit what can happen. There's also a  
22 limitation of having the same beginning and end  
23 points, and that really limits what alternatives can  
24 be proposed. It also really limits what type of  
25 alternatives can be proposed, and that they should

1 address the validity of that stated need.

2           Socioeconomics, the cost, according to  
3 the MISO MTEC 24, the cost of this is 428 million  
4 dollars. That was a 2024 cost, however, it was  
5 approved December of 2024. The problem is that the  
6 numbers that they used are 2023 numbers. So what is  
7 the cost now? We need to have the specific cost now  
8 in 2026 dollars. We've seen an incredible increase  
9 of cost of everything. You look at the tariffs and  
10 you look at basically the economy going down the  
11 toilet. Costs are out of this world, and at least  
12 one project, I think it was 416 and 415, Minnesota  
13 Power's northern reliability project, that cost went  
14 up 43 percent, 25 percent for construction issues  
15 and then I think it was another -- whatever is left  
16 of 43 percent, for changes in the project and  
17 redoing some of it. But that triggered a MISO  
18 variance analysis. And I think that's going to be  
19 coming up for every single project, because the  
20 costs are going through the roof and they really  
21 need to look at that.

22           And then when looking at costs, there's  
23 cost benefit, and what I would like to see the EA  
24 and the ER include is what direct benefits are there  
25 to ratepayers, not necessarily customers, but

1 ratepayers.

2           There is a section in the application it  
3 talks about, well, it's like less than a dollar for  
4 residents and like 81 cents or 90 some cents,  
5 something like that. But that's just for this  
6 project, and there's a lot of other projects coming  
7 down the pipe, like the northern reliability project  
8 will be added to it and how many other projects will  
9 be added to that cost, and we need to look at this  
10 project on its own, but this project in addition to  
11 all these others that will be added to people's  
12 bills.

13           And also, we need to specifically address  
14 in the ER and the EA Minnesota benefits. What of  
15 this applies, regional, regional, regional and let's  
16 look specifically at what benefits we get here, what  
17 does it do for us.

18           Also, the EA and the ER should include  
19 utility personal property tax, that could be  
20 regarded as a benefit, and there is a chart that  
21 lists by like counties and it looks like it might be  
22 townships of tax that will go to those units. But  
23 utilities personal property taxes go to the county  
24 and then city township and then the school district  
25 and we should have that identified by each specific

1 governmental unit, not a clump of them.

2           Here's an important one. Where is the  
3 power coming from? The EA and the ER need to  
4 address where that power's coming from. You've got  
5 the Iron Range, and that's down at the southern end  
6 of the great northern transmission project, which I  
7 call the not so great northern transmission project,  
8 you can look that up online, and is it coming from  
9 Manitoba, is that where this power is coming from?  
10 Or is the power coming from the west? And if it's  
11 coming from the west we need to look at what coal  
12 plants have shut down. The EA and the ER need to  
13 look at that.

14           All these applications right now are  
15 talking about, oh, the energy transition, we need to  
16 enable the energy transition with all this  
17 transmission. Well, if there's an energy  
18 transmission shutting down coal, what coal has been  
19 shut down? Isn't Boswell shutting down? How much  
20 capacity will that free up? The EA and ER need to  
21 address that. If you've got all this capacity being  
22 freed up, what do you need a transmission line for.

23           Coal Creek, that one is going to shut  
24 down, and Minnesota Power, in fact, the DC line, and  
25 that's I believe dedicated to wind, I'm not sure

1 about that, but I believe that's true. So then  
2 where did all the coal go? Well, they've got Cap X  
3 2020. So did that coal shut down out there? No.  
4 What coal plants have shut down? The EA and the ER  
5 need to address what coal plants out west in North  
6 Dakota have shut down that could affect transmission  
7 needed through Minnesota going into Wisconsin.

8 I had a great idea and then I lost it.

9 Oh, and that's something we should have.  
10 The EA and the ER, they should have power flows to  
11 show so we can see where the power is coming from,  
12 we could see how much is going in. Because in the  
13 southwest Minnesota line, from Split Rock to  
14 Lakeville junction, that was 2001 so most of you  
15 probably weren't there. That project was a -- it  
16 was for wind, it's for wind, but if you look at the  
17 power flows, 2200 MVA line, only 213 to 302 MVA were  
18 coming off of Buffalo Ridge, everything else was  
19 coming from the west, Sioux Falls and beyond,  
20 probably Big Stone and other plants out there. So  
21 we need to look at power flows so we can demonstrate  
22 where this power is coming from and know where it's  
23 going.

24 Also the map, the map was on page, oh, I  
25 lost it, anyways, there's a map there and it showed

1 a 2.1 and then 1, but a few things on that map you  
2 really need to know about, so people can ask about  
3 the transmission project is all these other lines,  
4 Cap X wasn't there, the MPV 17 portfolio project  
5 wasn't there, and again that southwest Minnesota 345  
6 wasn't there. All these lines, again, it's all  
7 connected, and these lines need to be there so we  
8 can look at it and say, oh, yeah, that makes sense,  
9 or, well that doesn't really make sense. So that's  
10 something that needs to be done.

11 Oh, and then talking about where the  
12 power is coming from. If it's coming from Manitoba  
13 Hydro up north, there's a Presidential Permit, and I  
14 want to put this in the record, Exhibit 1 would it  
15 be. Here's a copy of the Presidential Permit.

16 (Exhibit 1 marked for identification.)

17 That's only for 833 megawatts, that's not  
18 much when you're looking at a line like the Great  
19 Northern Transmission line, so is the Presidential  
20 Permit going to be amended? Is that going to  
21 happen? Because it doesn't make sense if there's  
22 only 833, why do we need a transmission line coming  
23 down into the Iron Range. Also, if it's only 833,  
24 what's that going to do with the Arrowhead 800 MVA  
25 limitation? We need to know. So Presidential

1 Permit.

2           Something else. In the application, page  
3 60, this is really interesting, table 13 and table  
4 14, they've got the MHEX interface tie line loading,  
5 and pre portfolio it's 3397.1, post portfolio  
6 3604.4, so that sounds like we're looking at roughly  
7 200 and some megawatts, it's page 60. So if we're  
8 going through all this for a couple hundred  
9 megawatts, that doesn't make any sense.

10           So the ER and EA needs to look at whether  
11 this makes sense to do all this and all this  
12 brouhaha for that small amount of increase in the  
13 interface.

14           That will be Exhibit 2.

15           (Exhibit 2 marked for identification.)

16           MS. CAROL OVERLAND: And be sure to tell  
17 me when it's time to shut up, I could do this all  
18 day.

19           In the application, it's the direct  
20 schedule 26, Winter, what would this be for? Ah,  
21 607. Are you related to the Winter who worked on  
22 the Arabic project, the engineer?

23           MR. CHRISTIAN WINTER: That's me.

24           MS. CAROL OVERLAND: No, the Arabic  
25 project, way back, 1999.

1 MR. CHRISTIAN WINTER: Oh, no, that  
2 wasn't me.

3 MS. CAROL OVERLAND: Exhibit 3.

4 (Exhibit 3 marked for identification.)

5 MS. CAROL OVERLAND: This is a chart from  
6 the Northland -- no, from the HPDC line, dockets  
7 CN-22-607 and TL-22-619, and what concerns me here,  
8 first, it's looking at 2030 in service and district  
9 2032, which is anticipated?

10 MR. DREW JANKE: '32.

11 MS. CAROL OVERLAND: So this is a little  
12 off, we've lost some time there in the last couple  
13 years.

14 What it notes is like there are breakers  
15 and equipment coming from Hyundai. And I think the  
16 EA and ER should look at where stuff is coming from,  
17 because of the tariffs and the increasing costs, so  
18 that's just an example.

19 That will be Exhibit 3, that's not from  
20 this project though.

21 Something that should be looked at is  
22 filed in the record, December 12th, 2025, the ex  
23 parte communication report, and there was a  
24 paragraph that was kind of questionable. And I  
25 looked at the application and it was section 3.2.2

1 talking about extreme weather, wildfire, sabotage,  
2 increasing impact. The ER should look at extreme  
3 weather, wildfires, sabotage, other impacts. They  
4 did alter and add some language there, so section  
5 3.2.2, that should be verified in the EA and ER.

6 Are you telling me to shut up?

7 MS. EMILY JOHNSON: I would like to give  
8 other people a chance. Thank you for that.

9 Do the Applicants have anything to say?

10 MR. CHRISTIAN WINTER: No.

11 MS. CAROL OVERLAND: This will be Exhibit  
12 4, the Ex Parte.

13 (Exhibit 4 marked for identification.)

14 MS. EMILY JOHNSON: I think the next  
15 speaker we have is Ross Voit.

16 MR. ROSS VOIT: Yeah, I'm in the section  
17 13 --

18 MS. EMILY JOHNSON: Sorry, can you state  
19 your name.

20 MR. ROSS VOIT: Oh, sorry. Ross Voit,  
21 R-o-s-s V-o-i-t.

22 The way the proposed power line is going  
23 to be is going to expose our cabin, Drew, you've  
24 been there. You've seen it. Our cabin would be  
25 totally exposed, just like having a garage without a

1 door on it.

2 We value our privacy. Our cabin has been  
3 there a lot longer than the proposed power line.  
4 Our gate would be useless, we've never had any  
5 vandalism or break-ins in 28 years, believe it or  
6 not.

7 And moving the route, I've got maps in  
8 here I will give to you, we could move the power  
9 line to the northeast corner of our property and go  
10 to the south and then connect up to the current  
11 power line as well. I've got maps in here that show  
12 how our property would be affected.

13 So just consider moving the power line,  
14 and the easement goes around our power line as well.

15 MS. EMILY JOHNSON: Thank you. Do the  
16 maps have your proposed alternative?

17 MR. ROSS VOIT: Yep, they're actually  
18 copies of your maps.

19 MS. EMILY JOHNSON: Thank you very much.

20 That concludes the speakers we have  
21 signed up but we'll open it up to anyone else who  
22 wants to come up at this time.

23 Just state and spell your name for me.

24 MR. JOSHUA TREASURE: My name is Joshua  
25 Treasure.

1           I recently bought a house in the Outborn  
2 area. A little bit about me. I was on the  
3 Arrowhead fire department for five years as a EMR  
4 firefighter. I currently work for the Department of  
5 Military Affairs, I did six years in the Air Force  
6 and I used my VA home loan to buy this house,  
7 knowing that there was a 230 line that has an  
8 easement already through the property. They want to  
9 tear that down and put these new big ones up.

10           I have a 18 month old son and I keep  
11 seeing that these power lines don't have sufficient  
12 evidence of much damage to the people, except for  
13 childhood leukemia, which I have a kid. So it's  
14 kind of a big deal to me, because that power line is  
15 250 feet from my back door, and our back yard goes  
16 right up to about the 50 foot mark from those power  
17 lines.

18           So we keep seeing the human impact and I  
19 just want to kind of put a face to that. Like, what  
20 do I do in that situation, you know. Like, I  
21 understand that this need for the area, but there  
22 seems to be a lot of inconsistencies with the other  
23 power lines and how that's going to be funding  
24 everything and who is paying for it, my property  
25 taxes and so on and so forth. So it just seems like

1 us little guys.

2 I've just got to state something, I'm not  
3 a public speaker, I'm a pretty quiet guy, I stick to  
4 myself. But when I'm coming to the meetings, you  
5 know that maybe we should take a look at things  
6 here.

7 I guess what I'm saying is, I just -- I  
8 don't know how to feel about the process, having a  
9 kid, I mean, you know, like you guys got teams of  
10 lawyers and stuff to say otherwise. But keep in  
11 mind, leaded fuel was a thing for decades, and there  
12 was tons of lawyers saying, well, there's no proof  
13 that this is harmful. You know, ketchup was  
14 originally marketed as a health tonic.

15 So when I hear these kind of things they  
16 seem rather superficial, looking at my 18 month old  
17 son going, wow, that's a really big power line  
18 they're putting up right next to your playground.

19 For the record, Joshua Treasure, Treasure  
20 is just like parts and gold, T-r-e-s-s-u-r-e. Thank  
21 you.

22 MS. EMILY JOHNSON: Thank you.

23 Anybody else who would like to come  
24 forward and speak?

25 MS. CAROL OVERLAND: My turn again?

1 MS. EMILY JOHNSON: You can come up  
2 again, we do have time.

3 MS. CAROL OVERLAND: Carol Overland,  
4 again, O-v-e-r-l-a-n-d, representing WOLF, World  
5 Organization of Landowners Freedom. Linda Hanson  
6 could not be here today, hopefully she'll be able to  
7 tune in online.

8 Way back in the early days, there was an  
9 issue with the Square Butte line, and I have a  
10 report about that that I want as Exhibit 5.

11 (Exhibit 5 marked for identification.)

12 MS. CAROL OVERLAND: And there was a  
13 problem with overloading way back when, and this is  
14 1999 probably. So that's Exhibit5.

15 And then I have some miscellaneous info  
16 about the Square Butte line that runs into  
17 Arrowhead, and one is the -- no kidding about it, I  
18 was cheating, it's the way back machine and another  
19 is archived today, a report from ABD of problems  
20 with that. And do you know if the Square Butte line  
21 has been updated recently or within the last 20  
22 years?

23 MR. CHRISTIAN WINTER: Christian Winter,  
24 manager of regional transmission planning for  
25 Minnesota Power.

1 Ms. Overland, when you say the Square  
2 Butte line, you're talking about the one that  
3 connects from North Dakota to the Duluth area?

4 MS. CAROL OVERLAND: Yes. Would that be  
5 related to the HVDC modernization project?

6 MR. CHRISTIAN WINTER: Yes, and that's a  
7 separate project. The HVDC modernization project is  
8 the tunnel that convert from DC power to AC power.

9 MS. CAROL OVERLAND: Did that increase  
10 the capacity of the line?

11 MR. CHRISTIAN WINTER: That project  
12 hasn't been completed yet, it's under construction.

13 MS. CAROL OVERLAND: Will it, how's that?

14 MR. CHRISTIAN WINTER: It will, yes. We  
15 talk about that in the docket, that it would  
16 increase the capacity of that HVDC transmission  
17 line.

18 MS. CAROL OVERLAND: By how much?

19 MR. CHRISTIAN WINTER: From 550 megawatts  
20 to 900 megawatts.

21 MS. CAROL OVERLAND: So almost half -- I  
22 mean twice as much, and that would be Exhibit 6.

23 (Exhibit 6 marked for identification.)

24 MS. CAROL OVERLAND: The NTAC report has  
25 a section where it talks about lines that are a

1 problem, and the system needs to be beefed up,  
2 because there are all these lines pretty much coming  
3 into the metro from the north, south and the north  
4 and the west and going south and they need to be  
5 beefed up, and I've learned in the Mississippi --  
6 Mankato to Mississippi route that the King-Eau Clair  
7 Arpin line and the Prairie Island-Byron-Adams line  
8 have not been updated in 50 and 60 years. This is  
9 important in this one because like for the Arrowhead  
10 project, the outage of the King Eau Claire line,  
11 June 25th, 1998, that was the big reason for  
12 supposedly needing the Arrowhead project, going from  
13 Arrowhead down to Weston.

14 The problem is that that was like the  
15 reason and they pushed and pushed and pushed, we  
16 need it because of this horrible outage and it would  
17 leave us freezing in the dark in an incubator  
18 without a job. So the problem with that is, this  
19 was 1998 and the lines have not been upgraded since,  
20 and I have that, and that will be Exhibits 7 and 8.

21 (Exhibits 7 & 8 were marked for  
22 identification.)

23 MS. CAROL OVERLAND: And I'll put in a  
24 written comment tying this all together, but these  
25 lines have not been upgraded.

1           A couple lines too that needed to be on  
2 that, in addition to Cap X and in addition to the  
3 MPP portfolio, we've got -- we have the Mankato to  
4 Mississippi line, and that goes all the way across  
5 the state. I'll do a written chart of all the ones  
6 that should be on the map in the EA and the ER.

7           Also, as far as socioeconomic impacts go  
8 -- oh, let's go back. I appreciated the comment  
9 about the leukemia and how he feels. My partner had  
10 leukemia and in 2023 spent a year going through  
11 treatment, five weeks in the hospital, eight months  
12 of daily treatments, and basically recovered now.  
13 And the type of leukemia he had was a APL, which I  
14 can't remember what that stands for now, the APL is  
15 curable, which is very unusual for leukemia, and  
16 what we found is that it's believed to be triggered  
17 environmental impacts -- I mean, exposure to  
18 environment emissions and radioactivity. And he  
19 spent 20 years in Delaware, right across the bay  
20 from three nuclear reactors and right down from the  
21 Delaware refinery and exposed to a lot of things.  
22 It should be taken seriously. Causation has not  
23 been proved, that's true, but there is an  
24 association, and that's significant, and the EA  
25 should address and the ER should address that.

1           Fiber optics, I presume there will be  
2 fiber optic in the shield water, is that correct,  
3 and how much of a percentage of that will be used  
4 for controlling the line and what percentage of that  
5 will be lease?

6           MR. CHRISTIAN WINTER: The entirety of  
7 the fiber optic communication double transmission  
8 line be would be for utility control protection.

9           MS. CAROL OVERLAND: It all will be?

10          MR. CHRISTIAN WINTER: Yes.

11          MS. CAROL OVERLAND: The other project it  
12 was like five percent and the rest was going to be  
13 leased. We've got that on the record.

14                   And the slide said it would be  
15 coordinating with the DNR. Has the DNR commented on  
16 this?

17          MR. DREW JANKE: No formal DNR comments  
18 in the docket, but we do meet with different groups  
19 on a regular basis.

20          MS. CAROL OVERLAND: So you do have notes  
21 that could be -- an information request could get  
22 those notes into the record.

23          MR. DREW JANKE: Yes.

24          MS. CAROL OVERLAND: Thank you. And  
25 that's it for now. I'll have more tomorrow.

1 MS. EMILY JOHNSON: Anybody else who  
2 would like to come up and speak?

3 MS. CAROL OVERLAND: Oh, may I?

4 MS. EMILY JOHNSON: Yes.

5 MS. CAROL OVERLAND: It will be short.

6 It's very important that everyone here  
7 know that everyone who may be affected by this,  
8 Minnesota has what's called the Buy the Farm Law,  
9 where if you are affected by this transmission 345  
10 line you can opt out, and when they want an easement  
11 and they tell you that they want to take your land,  
12 you can opt out and have them buy your entire  
13 property. You still have to fight about the amount,  
14 which you would have to do in any easement  
15 proceeding, but you can be bought out. That is an  
16 option. That is something that everyone should  
17 know. And that's something that the EA and ER  
18 should include, it's just basic information about  
19 buying the farm. There is a little section about  
20 easements, and buy the farm is crucial. Not  
21 everyone wants to live under a transmission line.

22 MS. EMILY JOHNSON: Thank you.

23 I think we are going to take about a five  
24 minute break, just to give everyone time to process  
25 and you can decide if you want to make a comment

1 after that.

2 If you have any questions for us, the  
3 State staff, we would love to answer them about the  
4 process specifically. You can always talk to the  
5 Applicant as well about the project. Let's come  
6 back, let's say, 7:05. Thanks.

7 (Recess taken at 6:57 till 7:05.)

8 MS. EMILY JOHNSON: If anybody would like  
9 to speak we've got some more time. Did anyone  
10 decide they wanted to come up and say anything?

11 I think we'll just plan on wrapping it up  
12 then.

13 Some important reminders, that comments  
14 will be made available to the public via eDockets.  
15 Our court reporter has transcribed everything from  
16 this evening and you can review it on the eDockets  
17 page.

18 The Commission does not edit or delete  
19 personal information from submissions, so just keep  
20 that in mind. And the written comment period closes  
21 on April 23rd, 2026, at 4:30 p.m.

22 Thank you all for coming tonight, we  
23 really appreciate it. Again, let Saarah or I know  
24 about the process going forward.

25 Thank you. Have a great night.

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

(Proceedings adjourned at 7:05 p.m.)

1 STATE OF MINNESOTA )

2 COUNTY OF HENNEPIN )

3

4

REPORTER'S CERTIFICATE

5

6 I, Jonna Schrupp, do hereby certify  
7 that the above and foregoing transcript,  
8 consisting of the preceding 47 pages is a  
9 correct transcript of my stenographic notes of  
10 the proceedings to the best of my ability.

11 Dated April 12, 2026

12

13 /s/ Jonna Schrupp  
14 JONNA SCHRUPP  
15 Stenographic Court Reporter

16

17

18

19

20

21

22

23

24

25

<b>A</b>				
<p><b>ABD (1)</b> 40:19</p> <p><b>able (1)</b> 40:6</p> <p><b>above (1)</b> 7:15</p> <p><b>AC (1)</b> 41:8</p> <p><b>accepted (1)</b> 26:2</p> <p><b>according (1)</b> 29:2</p> <p><b>accurate (1)</b> 4:15</p> <p><b>achieve (1)</b> 13:3</p> <p><b>across (2)</b> 43:4,19</p> <p><b>activities (1)</b> 19:19</p> <p><b>actually (3)</b> 8:18;18:15;37:17</p> <p><b>add (1)</b> 36:4</p> <p><b>added (3)</b> 30:8,9,11</p> <p><b>addendum (4)</b> 23:18;24:24;25:13; 26:12</p> <p><b>addition (3)</b> 30:10;43:2,2</p> <p><b>Additionally (3)</b> 3:9;4:10;5:5</p> <p><b>address (12)</b> 10:11;11:21;14:18; 21:13;28:18;29:1; 30:13;31:4,21;32:5; 43:25,25</p> <p><b>addressed (2)</b> 11:21,22</p> <p><b>adjacent (2)</b> 15:4,16</p> <p><b>adjourned (1)</b> 47:1</p> <p><b>administrative (1)</b> 26:19</p> <p><b>advocate (1)</b> 17:14</p> <p><b>aesthetic (1)</b> 21:5</p> <p><b>aesthetics (1)</b> 17:25</p> <p><b>Affairs (1)</b> 38:5</p> <p><b>affect (1)</b> 32:6</p> <p><b>affected (3)</b> 37:12;45:7,9</p> <p><b>again (10)</b> 9:23;13:7;17:22;</p>	<p><b>18:9;33:5,6;39:25; 40:2,4;46:23</b></p> <p><b>against (2)</b> 4:19;17:14</p> <p><b>agencies (2)</b> 18:20;20:2</p> <p><b>Agency (2)</b> 19:2,11</p> <p><b>agenda (1)</b> 3:19</p> <p><b>ago (1)</b> 12:10</p> <p><b>agreement (1)</b> 14:16</p> <p><b>agricultural (1)</b> 18:16</p> <p><b>Ah (1)</b> 34:20</p> <p><b>ahead (1)</b> 16:15</p> <p><b>Air (1)</b> 38:5</p> <p><b>allow (1)</b> 22:9</p> <p><b>almost (1)</b> 41:21</p> <p><b>along (7)</b> 3:7;5:8;16:14; 18:12;20:7;26:12,14</p> <p><b>alongside (2)</b> 15:8;16:18</p> <p><b>alter (1)</b> 36:4</p> <p><b>alternative (3)</b> 21:10;24:8;37:16</p> <p><b>alternatives (9)</b> 17:7;24:2,4,15,22; 25:7,16;28:23,25</p> <p><b>always (1)</b> 46:4</p> <p><b>amended (1)</b> 33:20</p> <p><b>American (2)</b> 6:17;7:10</p> <p><b>amount (5)</b> 11:11,24;12:1; 34:12;45:13</p> <p><b>analysis (1)</b> 29:18</p> <p><b>analyst (1)</b> 3:20</p> <p><b>anticipate (1)</b> 18:4</p> <p><b>anticipated (1)</b> 35:9</p> <p><b>anyways (1)</b> 32:25</p> <p><b>APL (2)</b> 43:13,14</p> <p><b>appendix (1)</b> 23:4</p> <p><b>Applicant (3)</b> 4:24;22:9;46:5</p>	<p><b>Applicants (5)</b> 3:22;6:1,9;17:2; 36:9</p> <p><b>application (16)</b> 4:1;6:3;10:18; 11:22;12:6;13:5; 14:14,23;17:21;23:5, 23;26:2;30:2;34:2,19; 35:25</p> <p><b>applications (3)</b> 22:25;26:23;31:14</p> <p><b>applies (2)</b> 21:12;30:15</p> <p><b>apply (2)</b> 21:8,24</p> <p><b>appointed (1)</b> 5:14</p> <p><b>appreciate (1)</b> 46:23</p> <p><b>appreciated (1)</b> 43:8</p> <p><b>approvals (1)</b> 5:21</p> <p><b>approved (6)</b> 8:12,21,23;10:1; 13:20;29:5</p> <p><b>approximately (1)</b> 7:21</p> <p><b>April (4)</b> 3:10;26:6;27:14; 46:21</p> <p><b>Arabic (2)</b> 34:22,24</p> <p><b>archeological (2)</b> 18:19,21</p> <p><b>archived (1)</b> 40:19</p> <p><b>area (6)</b> 7:12;18:23;21:19; 38:2,21;41:3</p> <p><b>areas (1)</b> 16:15</p> <p><b>Army (1)</b> 18:25</p> <p><b>around (3)</b> 11:13;28:15;37:14</p> <p><b>Arpin (2)</b> 2:21;42:7</p> <p><b>Arrowhead (13)</b> 3:4;6:16;7:19;12:1; 15:5;16:8;28:13; 33:24;38:3;40:17; 42:9,12,13</p> <p><b>aspect (1)</b> 16:17</p> <p><b>assessing (1)</b> 10:23</p> <p><b>assessment (9)</b> 6:2;17:3,5,17,20; 19:4,15;23:1;28:17</p> <p><b>assigned (1)</b> 20:17</p> <p><b>associated (3)</b></p>	<p><b>3:14;10:3;15:6</b></p> <p><b>association (1)</b> 43:24</p> <p><b>Assuming (1)</b> 16:23</p> <p><b>ATC (5)</b> 6:18;7:11,11;10:2; 11:25</p> <p><b>ATC's (2)</b> 15:5;16:8</p> <p><b>attend (1)</b> 27:1</p> <p><b>August (1)</b> 19:24</p> <p><b>authorities (1)</b> 18:13</p> <p><b>available (5)</b> 23:5,8;27:6,11; 46:14</p> <p><b>avoid (2)</b> 17:11;25:1</p> <p><b>avoidance (1)</b> 17:11</p> <p><b>avoided (1)</b> 17:13</p> <p><b>away (1)</b> 12:24</p>	<p><b>13:3;29:24;30:14, 16</b></p> <p><b>best (1)</b> 21:19</p> <p><b>better (1)</b> 8:2</p> <p><b>beyond (1)</b> 32:19</p> <p><b>big (6)</b> 9:20;32:20;38:9,14; 39:17;42:11</p> <p><b>bills (1)</b> 30:12</p> <p><b>bit (5)</b> 10:9;17:15,23;18:2; 38:2</p> <p><b>blue (2)</b> 15:19;25:21</p> <p><b>board (2)</b> 8:23;10:2</p> <p><b>boards (2)</b> 20:1,1</p> <p><b>Boswell (1)</b> 31:19</p> <p><b>both (5)</b> 4:6;5:22;17:17; 18:20;26:22</p> <p><b>bought (2)</b> 38:1;45:15</p> <p><b>break (1)</b> 45:24</p> <p><b>breakers (1)</b> 35:14</p> <p><b>break-ins (1)</b> 37:5</p> <p><b>brief (4)</b> 3:21,23;5:9;6:20</p> <p><b>broad (1)</b> 10:21</p> <p><b>broader (1)</b> 10:5</p> <p><b>broken (1)</b> 15:9</p> <p><b>brouhaha (1)</b> 34:12</p> <p><b>Buffalo (1)</b> 32:18</p> <p><b>build (1)</b> 20:21</p> <p><b>builds (1)</b> 10:6</p> <p><b>built (2)</b> 9:15;12:4</p> <p><b>busy (2)</b> 17:15,23</p> <p><b>Butte (5)</b> 2:20;40:9,16,20; 41:2</p> <p><b>buy (4)</b> 38:6;45:8,12,20</p> <p><b>buying (1)</b> 45:19</p>
<b>B</b>				
			<p><b>back (22)</b> 3:24;7:16;8:14; 10:9;12:3,9;13:21; 14:19;20:13;22:1; 25:23;27:6,10;28:15; 34:25;38:15,15;40:8, 13,18;43:8;46:6</p> <p><b>background (2)</b> 8:7;14:13</p> <p><b>based (5)</b> 13:13;18:9,14;25:8; 26:7</p> <p><b>basic (1)</b> 45:18</p> <p><b>basically (2)</b> 29:10;43:12</p> <p><b>basis (2)</b> 12:16;44:19</p> <p><b>bay (1)</b> 43:19</p> <p><b>beefed (2)</b> 42:1,5</p> <p><b>begin (2)</b> 16:19,23</p> <p><b>beginning (3)</b> 17:1,25;28:22</p> <p><b>begins (1)</b> 21:22</p> <p><b>believers (1)</b> 28:16</p> <p><b>benefit (2)</b> 29:23;30:20</p> <p><b>benefits (4)</b></p>	

<p style="text-align: center;"><b>C</b></p>	<p><b>changed (2)</b> 9:7;12:17 <b>changes (1)</b> 29:16 <b>changing (1)</b> 9:6 <b>characteristics (3)</b> 21:16;23:13;24:21 <b>characterize (1)</b> 9:12 <b>chart (3)</b> 30:20;35:5;43:5 <b>cheating (1)</b> 40:18 <b>childhood (1)</b> 38:13 <b>Christian (14)</b> 7:25;8:1,3;34:23; 35:1;36:10;40:23,23; 41:6,11,14,19;44:6,10 <b>circuit (5)</b> 7:22;15:18,25;16:3, 10 <b>city (1)</b> 30:24 <b>Clair (2)</b> 2:21;42:6 <b>Claire (1)</b> 42:10 <b>clean (1)</b> 11:2 <b>clearing (2)</b> 19:9;21:5 <b>clearly (1)</b> 14:12 <b>closely (1)</b> 18:25 <b>closes (2)</b> 26:17;46:20 <b>clump (1)</b> 31:1 <b>CN-22-607 (1)</b> 35:7 <b>CN-25-111 (1)</b> 3:16 <b>coal (8)</b> 31:11,18,18,23; 32:2,3,4,5 <b>coal-fired (2)</b> 12:7,11 <b>co-applicant (1)</b> 7:9 <b>co-applicants (1)</b> 6:17 <b>colleague (2)</b> 3:24;6:7 <b>collocated (1)</b> 15:8 <b>collocating (1)</b> 18:5 <b>collocation (1)</b> 15:16 <b>combined (1)</b></p>	<p>23:22 <b>coming (20)</b> 29:19;30:6;31:3,4, 8,9,10,11;32:11,18, 19,22;33:12,12,22; 35:15,16;39:4;42:2; 46:22 <b>comment (19)</b> 4:2,9,11;22:3,13; 24:13;25:10,11;26:5, 14,17;27:3,5,7,14; 42:24;43:8;45:25; 46:20 <b>commented (1)</b> 44:15 <b>commenters (1)</b> 4:7 <b>commenting (1)</b> 27:19 <b>comments (16)</b> 4:22;5:4;13:15; 20:11;22:14;24:19; 25:9,22;27:4,9,15,18, 24;28:4;44:17;46:13 <b>Commission (21)</b> 3:15,21,25;5:11,21, 25;14:3,17;20:17; 21:1,12;22:22;23:24; 25:2,11,15;26:1,8,21; 28:15;46:18 <b>commissioner (2)</b> 5:6,6 <b>Commissioners (3)</b> 4:16;5:1,14 <b>Commission's (3)</b> 4:21;6:5;22:11 <b>Communication (3)</b> 2:18;35:23;44:7 <b>community (1)</b> 5:3 <b>Company (2)</b> 6:18;7:10 <b>compile (1)</b> 4:20 <b>complete (3)</b> 20:21;26:2;27:5 <b>completed (1)</b> 41:12 <b>compliance (2)</b> 6:12;21:14 <b>concern (2)</b> 12:5,18 <b>concerns (1)</b> 35:7 <b>concludes (3)</b> 6:6;22:3;37:20 <b>conditions (5)</b> 21:13,24;22:6;25:2, 14 <b>conductors (1)</b> 15:24 <b>configurations (1)</b> 24:8</p>	<p><b>confirmed (1)</b> 5:15 <b>congestions (1)</b> 10:25 <b>connect (1)</b> 37:10 <b>connected (1)</b> 33:7 <b>connects (1)</b> 41:3 <b>consider (2)</b> 26:21;37:13 <b>consideration (1)</b> 22:11 <b>considered (2)</b> 14:3;17:7 <b>considers (1)</b> 21:2 <b>construct (1)</b> 22:9 <b>constructed (1)</b> 9:22 <b>construction (5)</b> 16:24;21:4,10; 29:14;41:12 <b>consult (2)</b> 18:20,22 <b>contact (1)</b> 27:10 <b>contain (1)</b> 22:5 <b>contains (1)</b> 23:2 <b>contemplated (2)</b> 14:9,10 <b>continue (5)</b> 6:10;16:22;19:20; 20:3,7 <b>continues (1)</b> 9:25 <b>Control (2)</b> 19:2;44:8 <b>controlling (1)</b> 44:4 <b>conversation (1)</b> 13:12 <b>convert (1)</b> 41:8 <b>coordinate (1)</b> 18:24 <b>coordinating (2)</b> 18:12;44:15 <b>copies (1)</b> 37:18 <b>copy (3)</b> 6:4;22:1;33:15 <b>corner (1)</b> 37:9 <b>Corps (1)</b> 18:25 <b>cost (9)</b> 29:2,3,4,7,7,9,13, 23;30:9</p>	<p><b>Costs (4)</b> 29:11,20,22;35:17 <b>counties (1)</b> 30:21 <b>County (6)</b> 6:15;7:19;15:3,21; 20:1;30:23 <b>couple (13)</b> 8:8;9:4;11:20;15:3; 16:14,16;18:7,18; 19:16,22;34:8;35:12; 43:1 <b>court (4)</b> 4:13,15;27:22; 46:15 <b>cover (4)</b> 3:11;4:5;13:10; 14:20 <b>covers (1)</b> 6:22 <b>Creek (1)</b> 31:23 <b>crossing (1)</b> 18:11 <b>crucial (1)</b> 45:20 <b>curable (1)</b> 43:15 <b>current (1)</b> 37:10 <b>Currently (4)</b> 6:24;16:4;26:1; 38:4 <b>customer (3)</b> 10:12;13:24;14:5 <b>customers (6)</b> 7:5,7,8;12:12,14; 29:25</p>
				<b>D</b>
				<p><b>daily (1)</b> 43:12 <b>Dakota (2)</b> 32:6;41:3 <b>damage (1)</b> 38:12 <b>dark (1)</b> 42:17 <b>data (7)</b> 13:14,15,17;14:5,6, 8,14 <b>day (1)</b> 34:18 <b>daylight (1)</b> 21:10 <b>days (1)</b> 40:8 <b>DC (2)</b> 31:24;41:8 <b>deal (1)</b> 38:14 <b>decade (1)</b></p>

<p>10:8  <b>decades (2)</b>                  9:5;39:11  <b>December (4)</b>                  8:14;13:22;29:5;                  35:22  <b>decide (3)</b>                  5:16;45:25;46:10  <b>decides (1)</b>                  21:1  <b>decision (5)</b>                  4:21;20:22;22:22;                  26:22,25  <b>decisions (1)</b>                  4:16  <b>dedicated (1)</b>                  31:25  <b>Delaware (2)</b>                  43:19,21  <b>delete (1)</b>                  46:18  <b>deliver (2)</b>                  7:4;10:4  <b>demand (1)</b>                  11:2  <b>demonstrate (1)</b>                  32:21  <b>Department (3)</b>                  19:1;38:3,4  <b>describe (3)</b>                  17:4,6;24:1  <b>description (1)</b>                  3:23  <b>designed (1)</b>                  9:1  <b>detail (3)</b>                  6:8;18:10;19:15  <b>detailed (1)</b>                  16:18  <b>determinations (2)</b>                  25:12;26:9  <b>determine (1)</b>                  23:17  <b>develop (3)</b>                  19:10;22:5,20  <b>developed (3)</b>                  13:20;14:24;18:15  <b>development (1)</b>                  24:23  <b>different (7)</b>                  12:19;15:10;17:17;                  24:6,6,8;44:18  <b>direct (2)</b>                  29:24;34:19  <b>direction (1)</b>                  11:10  <b>directly (2)</b>                  20:11;27:8  <b>discuss (4)</b>                  6:8;16:20;18:3;                  20:23  <b>discussed (2)</b>                  19:14;24:18</p>	<p><b>discussion (2)</b>                  13:6;16:19  <b>distribution (1)</b>                  7:1  <b>district (2)</b>                  30:24;35:8  <b>DNR (3)</b>                  44:15,15,17  <b>docket (8)</b>                  3:14,15,16;13:6,12,                  15;41:15;44:18  <b>dockets (1)</b>                  35:6  <b>dollar (1)</b>                  30:3  <b>dollars (2)</b>                  29:4,8  <b>done (1)</b>                  33:10  <b>door (2)</b>                  37:1;38:15  <b>double (4)</b>                  7:22;15:25;16:10;                  44:7  <b>down (18)</b>                  7:19;15:10,20;                  29:10;30:7;31:5,12,                  18,19,19,24;32:3,4,6;                  33:23;38:9;42:13;                  43:20  <b>draft (8)</b>                  22:5,8,14,20;25:3,                  15;26:10,15  <b>DREW (9)</b>                  6:11,12;12:12;                  14:19,22;35:10;                  36:23;44:17,23  <b>Duluth (1)</b>                  41:3  <b>duly (1)</b>                  2:25  <b>during (2)</b>                  24:12;25:10</p>	<p>11:14,15;15:1  <b>Eau (1)</b>                  42:10  <b>economies (2)</b>                  18:9,14  <b>economy (1)</b>                  29:10  <b>edit (1)</b>                  46:18  <b>eDockets (3)</b>                  23:9;46:14,16  <b>efficiency (1)</b>                  10:25  <b>efforts (1)</b>                  10:7  <b>eight (1)</b>                  43:11  <b>electric (3)</b>                  5:11;6:25;14:16  <b>electrical (1)</b>                  5:13  <b>electricity (6)</b>                  7:13;9:6,10,24;                  11:9;12:11  <b>electronically (1)</b>                  23:8  <b>else (6)</b>                  5:8;32:18;34:2;                  37:21;39:23;45:1  <b>e-mail (2)</b>                  20:10;27:8  <b>Emily (15)</b>                  3:25;6:7;20:14,15;                  36:7,14,18;37:15,19;                  39:22;40:1;45:1,4,22;                  46:8  <b>emissions (1)</b>                  43:18  <b>EMR (1)</b>                  38:3  <b>enable (1)</b>                  31:16  <b>end (6)</b>                  4:2;13:13,13;15:2;                  28:22;31:5  <b>ends (1)</b>                  27:14  <b>Energy (8)</b>                  7:3,5;11:2;12:15;                  24:9;31:15,16,17  <b>engagement (4)</b>                  16:13,21;19:18,21  <b>engineer (1)</b>                  34:22  <b>engineering (3)</b>                  11:24;12:25;16:19  <b>Engineers (1)</b>                  18:25  <b>enhances (1)</b>                  11:16  <b>entered (1)</b>                  2:25  <b>entire (2)</b></p>	<p>26:21;45:12  <b>entirety (1)</b>                  44:6  <b>environment (2)</b>                  17:5;43:18  <b>environmental (26)</b>                  5:23,25;6:2,12;                  14:20;16:20;17:3,8,                  16,18,20;19:4,15;                  20:16;21:2;23:1,2,13,                  25;24:1,21;25:18;                  26:11;28:17,18;43:17  <b>equipment (1)</b>                  35:15  <b>ER (15)</b>                  29:24;30:14,18;                  31:3,12,20;32:4,10;                  34:10;35:16;36:2,5;                  43:6,25;45:17  <b>especially (1)</b>                  13:12  <b>essentially (4)</b>                  7:11;9:8,21;11:8  <b>etiquette (1)</b>                  27:19  <b>evaluated (5)</b>                  17:20;18:8;19:3,6;                  23:16  <b>evening (2)</b>                  20:14;46:16  <b>everybody (5)</b>                  3:1;4:8,14;5:8;28:1  <b>everyone (8)</b>                  6:11;20:15;27:25;                  45:6,7,16,21,24  <b>evidence (1)</b>                  38:12  <b>Ex (3)</b>                  2:18;35:22;36:12  <b>example (1)</b>                  35:18  <b>examples (1)</b>                  24:5  <b>exceeded (1)</b>                  7:2  <b>except (1)</b>                  38:12  <b>Exhibit (13)</b>                  33:14,16;34:14,15;                  35:3,4,19;36:11,13;                  40:10,11;41:22,23  <b>Exhibit5 (1)</b>                  40:14  <b>EXHIBITS (3)</b>                  2:14;42:20,21  <b>existing (6)</b>                  9:13;15:8,16,22;                  16:2;18:3  <b>expect (1)</b>                  26:10  <b>expected (1)</b>                  26:13  <b>expose (1)</b></p>	<p>36:23  <b>exposed (2)</b>                  36:25;43:21  <b>exposure (1)</b>                  43:17  <b>extra (1)</b>                  16:2  <b>extreme (2)</b>                  36:1,2</p>
	<b>E</b>		<b>F</b>	
	<p><b>EA (22)</b>                  18:8;23:3,5,14,18;                  24:24;25:13;26:12;                  29:23;30:14,18;31:3,                  12,20;32:4,10;34:10;                  35:16;36:5;43:6,24;                  45:17  <b>earlier (3)</b>                  12:13;13:23;23:21  <b>early (3)</b>                  12:5,19;40:8  <b>easement (5)</b>                  16:20;37:14;38:8;                  45:10,14  <b>easements (1)</b>                  45:20  <b>east (3)</b></p>	<p><b>face (1)</b>                  38:19  <b>facilitate (1)</b>                  9:9  <b>facilitates (1)</b>                  11:8  <b>facilities (2)</b>                  5:13;24:9  <b>fact (1)</b>                  31:24  <b>fairly (2)</b>                  18:22,24  <b>fall (4)</b>                  26:11,13,14,24  <b>Falls (1)</b>                  32:19  <b>far (3)</b>                  14:25;15:11;43:7  <b>Farm (3)</b>                  45:8,19,20  <b>federal (1)</b>                  20:2  <b>feel (1)</b>                  39:8  <b>feels (2)</b>                  5:3;43:9  <b>feet (1)</b>                  38:15  <b>few (4)</b>                  17:22;20:8;28:14;                  33:1  <b>Fiber (3)</b>                  44:1,2,7  <b>fight (1)</b>                  45:13  <b>figure (2)</b>                  6:22;7:15  <b>file (1)</b>                  27:9  <b>filed (4)</b>                  14:17;18:15;26:18;                  35:22  <b>filing (1)</b>                  23:9  <b>final (2)</b>                  16:6;22:21  <b>find (3)</b>                  6:4;10:20;20:8  <b>fire (1)</b>                  38:3  <b>firefighter (1)</b></p>		

38:4 <b>first (13)</b> 3:15;7:4;8:18; 11:21;12:4,13;19:23; 20:19;24:20;25:13; 28:7,17;35:8 <b>five (5)</b> 5:14;38:3;43:11; 44:12;45:23 <b>flexibility (1)</b> 11:13 <b>Floodwood (1)</b> 15:15 <b>flow (4)</b> 11:10,11,18;12:2 <b>flows (3)</b> 32:10,17,21 <b>focus (1)</b> 7:12 <b>focused (1)</b> 24:4 <b>folks (4)</b> 13:13;18:16;28:14, 15 <b>follow (1)</b> 26:16 <b>following (1)</b> 2:24 <b>foot (1)</b> 38:16 <b>Force (1)</b> 38:5 <b>form (1)</b> 27:5 <b>formal (1)</b> 44:17 <b>forth (1)</b> 38:25 <b>forward (3)</b> 8:9;39:24;46:24 <b>found (1)</b> 43:16 <b>frame (1)</b> 7:17 <b>free (1)</b> 31:20 <b>freed (1)</b> 31:22 <b>Freedom (2)</b> 28:12;40:5 <b>freeway (1)</b> 9:19 <b>freezing (1)</b> 42:17 <b>front (1)</b> 10:19 <b>fuel (1)</b> 39:11 <b>funding (1)</b> 38:23 <b>further (3)</b> 19:5;23:16;24:23 <b>future (2)</b>	9:11;16:5 <b>G</b> <b>garage (1)</b> 36:25 <b>gas (1)</b> 5:12 <b>gate (1)</b> 37:4 <b>gather (1)</b> 22:4 <b>general (2)</b> 7:17;24:18 <b>Generally (1)</b> 7:12 <b>generate (1)</b> 9:6 <b>generation (2)</b> 6:25;12:8 <b>generator (2)</b> 10:12;13:25 <b>gets (1)</b> 19:11 <b>giving (2)</b> 3:21;11:17 <b>goal (1)</b> 12:23 <b>Goals (1)</b> 7:3 <b>goes (5)</b> 12:3;16:23;37:14; 38:15;43:4 <b>gold (1)</b> 39:20 <b>Good (1)</b> 20:14 <b>governmental (1)</b> 31:1 <b>governor (1)</b> 5:15 <b>Grand (1)</b> 15:2 <b>graphically (1)</b> 11:16 <b>gray (2)</b> 8:16,18 <b>great (5)</b> 31:6,7;32:8;33:18; 46:25 <b>green (1)</b> 8:17 <b>grid (10)</b> 8:13;9:9,22;10:13, 23,25;11:1,7,16;14:4 <b>ground (1)</b> 4:5 <b>group (1)</b> 19:12 <b>groups (1)</b> 44:18 <b>growing (1)</b> 11:2	<b>guess (2)</b> 17:4;39:7 <b>guy (1)</b> 39:3 <b>guys (2)</b> 39:1,9 <b>H</b> <b>habitat (1)</b> 21:6 <b>half (2)</b> 16:7;41:21 <b>hand (5)</b> 3:24;6:9;7:25; 14:19;20:13 <b>hang (1)</b> 15:17 <b>Hanson (1)</b> 40:5 <b>happen (4)</b> 11:1;24:11;28:21; 33:21 <b>happening (1)</b> 9:21 <b>happens (2)</b> 11:9;25:8 <b>happy (1)</b> 27:11 <b>harmful (1)</b> 39:13 <b>haul (1)</b> 14:1 <b>headquartered (1)</b> 7:14 <b>health (1)</b> 39:14 <b>hear (3)</b> 4:8;5:1;39:15 <b>heard (2)</b> 4:15;27:25 <b>hearing (2)</b> 26:17,18 <b>hearings (2)</b> 26:13,20 <b>heavy (4)</b> 16:12,17;18:22; 19:17 <b>held (2)</b> 3:6;16:14 <b>Hello (1)</b> 3:1 <b>help (5)</b> 4:16;20:25;21:15, 20;23:17 <b>Here's (3)</b> 16:11;31:2;33:15 <b>Hermantown (3)</b> 13:17;14:7;15:4 <b>Hi (1)</b> 6:11 <b>high (3)</b> 15:8;16:11;21:25	<b>High-Level (1)</b> 2:17 <b>highlighted (1)</b> 25:21 <b>highway (2)</b> 9:17,22 <b>history (1)</b> 12:6 <b>hold (1)</b> 3:9 <b>holding (1)</b> 26:4 <b>home (1)</b> 38:6 <b>hopefully (1)</b> 40:6 <b>horrible (1)</b> 42:16 <b>hospital (1)</b> 43:11 <b>hotline (2)</b> 20:10,10 <b>hours (1)</b> 21:10 <b>house (2)</b> 38:1,6 <b>houses (2)</b> 16:14;19:23 <b>how's (1)</b> 41:13 <b>HPDC (1)</b> 35:6 <b>human (6)</b> 17:8,18;21:2;23:2; 24:20;38:18 <b>hundred (1)</b> 34:8 <b>HVDC (3)</b> 41:5,7,16 <b>Hydro (1)</b> 33:13 <b>Hyundai (1)</b> 35:15 <b>I</b> <b>idea (1)</b> 32:8 <b>identification (7)</b> 33:16;34:15;35:4; 36:13;40:11;41:23; 42:22 <b>identified (3)</b> 10:22;13:4;30:25 <b>identifies (1)</b> 17:10 <b>illustrated (1)</b> 11:15 <b>impact (4)</b> 17:18;18:16;36:2; 38:18 <b>impacts (21)</b> 17:9,12,12;18:3,5;	19:8;21:2,3,4,5,13,17, 17;23:3,3,13;24:21; 25:1;36:3;43:7,17 <b>imperative (1)</b> 9:23 <b>important (8)</b> 4:14;10:8;13:8; 22:8;31:2;42:9;45:6; 46:13 <b>improving (1)</b> 10:13 <b>include (11)</b> 18:8;21:4,9;23:1; 24:6,7;25:2,15;29:24; 30:18;45:18 <b>included (4)</b> 6:3;17:21;23:4; 25:17 <b>includes (1)</b> 21:24 <b>including (4)</b> 4:6;7:7;24:22;25:9 <b>inconsistencies (1)</b> 38:22 <b>increase (6)</b> 11:13;12:23;29:8; 34:12;41:9,16 <b>increased (1)</b> 12:7 <b>increasing (3)</b> 10:24;35:17;36:2 <b>incredible (1)</b> 29:8 <b>incubator (1)</b> 42:17 <b>Independent (1)</b> 8:14 <b>individual (4)</b> 10:12;13:24,25; 14:5 <b>individuals (1)</b> 5:16 <b>industrial (1)</b> 7:8 <b>info (1)</b> 40:15 <b>inform (1)</b> 20:25 <b>Information (6)</b> 3:3;23:2;25:9; 44:21;45:18;46:19 <b>informed (1)</b> 4:16 <b>infrastructure (2)</b> 9:14;21:6 <b>initially (2)</b> 15:17;16:2 <b>inner (1)</b> 19:11 <b>in-person (2)</b> 3:6;19:25 <b>input (12)</b> 4:20;20:21,25;
---	---	--	--	---

<p>21:16,20;22:4,4,20; 23:12,17;26:8,15 <b>instead (2)</b> 24:14;25:5 <b>intended (1)</b> 10:11 <b>Interactive (1)</b> 2:19 <b>interested (1)</b> 18:17 <b>interesting (1)</b> 34:3 <b>interface (2)</b> 34:4,13 <b>interstate (3)</b> 9:2,18,22 <b>intervenor (1)</b> 28:12 <b>into (9)</b> 4:11;12:2;15:10; 16:15;32:7;33:23; 40:16;42:3;44:22 <b>introduction (1)</b> 3:21 <b>investigated (1)</b> 11:5 <b>involve (1)</b> 5:23 <b>Iron (7)</b> 3:4;6:15;7:18; 14:25;15:13;31:5; 33:23 <b>ISA (8)</b> 6:16;7:16;13:19; 14:22;15:18,25; 16:10;18:1 <b>Island-Byron-Adams (2)</b> 2:22;42:7 <b>issue (3)</b> 5:12,17;40:9 <b>issued (1)</b> 26:11 <b>issues (2)</b> 14:18;29:14</p>	<p><b>joining (1)</b> 3:2 <b>JOSHUA (3)</b> 37:24,24;39:19 <b>judge (1)</b> 26:19 <b>July (1)</b> 26:7 <b>junction (1)</b> 32:14 <b>June (2)</b> 26:7;42:11</p> <p style="text-align: center;"><b>K</b></p> <p><b>keep (5)</b> 28:19;38:10,18; 39:10;46:19 <b>keeping (1)</b> 28:16 <b>ketchup (1)</b> 39:13 <b>key (1)</b> 25:19 <b>kick (1)</b> 4:4 <b>kid (2)</b> 38:13;39:9 <b>kidding (1)</b> 40:17 <b>kilovolt (5)</b> 3:4;5:20;7:22; 15:23;16:9 <b>kilovolts (2)</b> 16:3,5 <b>kind (8)</b> 9:16;11:15;12:6,16; 35:24;38:14,19;39:15 <b>King (1)</b> 42:10 <b>King-Eau (2)</b> 2:21;42:6 <b>knowing (1)</b> 38:7</p>	<p><b>largest (1)</b> 7:7 <b>last (3)</b> 13:9;35:12;40:21 <b>Later (5)</b> 6:7;22:13;23:7; 24:10;25:23 <b>launch (1)</b> 20:4 <b>law (3)</b> 22:25;26:19;45:8 <b>lawyers (2)</b> 39:10,12 <b>leaded (1)</b> 39:11 <b>learned (1)</b> 42:5 <b>learns (1)</b> 5:7 <b>lease (1)</b> 44:5 <b>leased (1)</b> 44:13 <b>least (1)</b> 29:11 <b>leave (2)</b> 20:11;42:17 <b>left (1)</b> 29:15 <b>lengths (1)</b> 24:6 <b>lengthy (1)</b> 23:11 <b>less (1)</b> 30:3 <b>leukemia (5)</b> 38:13;43:9,10,13, 15 <b>level (2)</b> 16:11;17:4 <b>liability (1)</b> 13:21 <b>libraries (1)</b> 23:6 <b>life (1)</b> 21:14 <b>likely (2)</b> 26:18,24 <b>limit (7)</b> 11:23,25;12:3;13:2; 27:23;28:16,21 <b>limitation (4)</b> 12:25,25;28:22; 33:25 <b>limitations (1)</b> 12:24 <b>limited (1)</b> 11:25 <b>limiting (1)</b> 21:9 <b>limits (2)</b> 28:23,24 <b>Linda (1)</b></p>	<p>40:5 <b>line (41)</b> 3:4,8;5:20;7:23; 12:4;15:9,25;24:15; 25:6;31:22,24;32:13, 17;33:18,19,22;34:4; 35:6;36:22;37:3,9,11, 13,14;38:7,14;39:17; 40:9,16,20;41:2,10, 17;42:7,7,10;43:4; 44:4,8;45:10,21 <b>lines (16)</b> 7:1;8:16,18;9:14, 20;33:3,6,7;38:11,17, 23;41:25;42:2,19,25; 43:1 <b>link (1)</b> 27:7 <b>list (3)</b> 17:12,19;19:19 <b>listen (1)</b> 5:7 <b>lists (1)</b> 30:21 <b>little (5)</b> 10:9;35:11;38:2; 39:1;45:19 <b>live (1)</b> 45:21 <b>loading (1)</b> 34:4 <b>loan (1)</b> 38:6 <b>local (6)</b> 5:3;9:16;11:7,16; 21:16,18 <b>locations (2)</b> 3:7;23:7 <b>long (4)</b> 7:22;8:6;9:3;14:1 <b>longer (1)</b> 37:3 <b>look (20)</b> 9:13,17;17:17,25; 22:2;29:9,10,21;30:9, 16;31:8,11,13;32:16, 21;33:8;34:10;35:16; 36:2;39:5 <b>looked (2)</b> 35:21,25 <b>looking (14)</b> 9:4,5;13:23,25; 14:9,11;18:17;24:12, 18;29:22;33:18;34:6; 35:8;39:16 <b>looks (2)</b> 12:21;30:21 <b>lost (3)</b> 32:8,25;35:12 <b>lot (10)</b> 9:13;10:20;11:10, 12;13:5,11;30:6;37:3; 38:22;43:21</p>	<p><b>Louis (7)</b> 6:15;7:19;15:3,14, 20,21;16:8 <b>love (1)</b> 46:3 <b>LRTP (4)</b> 9:17;10:23;12:21; 14:11</p> <p style="text-align: center;"><b>M</b></p> <p><b>machine (1)</b> 40:18 <b>mail (1)</b> 27:8 <b>maintain (1)</b> 27:25 <b>majority (1)</b> 6:23 <b>makes (2)</b> 33:8;34:11 <b>making (2)</b> 20:22;26:22 <b>management (1)</b> 19:10 <b>manager (3)</b> 8:4;20:16;40:24 <b>Manitoba (2)</b> 31:9;33:12 <b>Mankato (2)</b> 42:6;43:3 <b>many (2)</b> 27:23;30:8 <b>map (5)</b> 32:24,24,25;33:1; 43:6 <b>maps (5)</b> 10:20;37:7,11,16, 18 <b>mark (1)</b> 38:16 <b>marked (7)</b> 33:16;34:15;35:4; 36:13;40:11;41:23; 42:21 <b>marketed (1)</b> 39:14 <b>materials (1)</b> 3:12 <b>Maxon (3)</b> 2:2;3:1,20 <b>may (7)</b> 11:1;13:16,16; 19:23;20:5;45:3,7 <b>maybe (1)</b> 39:5 <b>mean (4)</b> 24:10;39:9;41:22; 43:17 <b>measures (3)</b> 21:8;23:15;24:22 <b>meet (4)</b> 24:3,13;25:5;44:18</p>
<b>J</b>	<b>L</b>			
<p><b>jams (1)</b> 11:1 <b>Janke (8)</b> 2:3,5;6:11,12; 14:22;35:10;44:17,23 <b>January (1)</b> 26:2 <b>job (1)</b> 42:18 <b>Johnson (15)</b> 2:6;3:25;20:14,15; 36:7,14,18;37:15,19; 39:22;40:1;45:1,4,22; 46:8 <b>joined (1)</b> 5:5</p>	<p><b>Lakeville (1)</b> 32:14 <b>land (3)</b> 18:9,14;45:11 <b>landline (1)</b> 5:12 <b>Landowner (1)</b> 28:11 <b>landowners (2)</b> 16:19;40:5 <b>language (1)</b> 36:4 <b>large (1)</b> 5:13 <b>largely (1)</b> 15:22</p>			

<p><b>Meeting (12)</b> 3:3,10,11,19;4:2,5,12,14;5:7;11:2;26:25;27:4 <b>meetings (4)</b> 3:6;19:25;26:4;39:4 <b>megawatts (6)</b> 6:24;33:17;34:7,9;41:19,20 <b>mention (1)</b> 3:13 <b>mentioned (8)</b> 6:14;7:9;17:1,16;19:17,23;23:4,21 <b>met (1)</b> 7:2 <b>methods (1)</b> 24:25 <b>metro (1)</b> 42:3 <b>MHEX (1)</b> 34:4 <b>Midcontinent (1)</b> 8:13 <b>midwest (2)</b> 10:24;11:3 <b>might (2)</b> 18:2;30:21 <b>mike (4)</b> 27:20,21;28:2,2 <b>mile (1)</b> 7:22 <b>miles (2)</b> 6:25;16:7 <b>milestones (1)</b> 25:19 <b>Military (1)</b> 38:5 <b>million (1)</b> 29:3 <b>mind (3)</b> 8:20;39:11;46:20 <b>minimize (2)</b> 17:11;25:1 <b>Minnesota (22)</b> 5:10;6:13,17,21,23;7:2;8:5;10:3;11:18;12:9,10,14;19:1;28:10;29:12;30:14;31:24;32:7,13;33:5;40:25;45:8 <b>minute (2)</b> 25:24;45:24 <b>miscellaneous (1)</b> 40:15 <b>MISO (12)</b> 8:23;9:4;10:2,22;12:21;13:4,20,21;14:9,10;29:3,17 <b>MISO's (2)</b> 9:23;11:4 <b>missing (1)</b></p>	<p>23:14 <b>Mississippi (3)</b> 42:5,6;43:4 <b>mitigate (3)</b> 17:12;23:3;25:1 <b>mitigation (5)</b> 18:4,16;21:8;23:15;24:22 <b>modernization (2)</b> 41:5,7 <b>month (2)</b> 38:10;39:16 <b>months (1)</b> 43:11 <b>more (10)</b> 6:8;10:7;12:13;18:18;19:3,15,16;21:11;44:25;46:9 <b>most (1)</b> 32:14 <b>move (2)</b> 11:13;37:8 <b>Moving (4)</b> 5:18;16:15;37:7,13 <b>MPP (1)</b> 43:3 <b>MPV (1)</b> 33:4 <b>MTEC (1)</b> 29:3 <b>much (12)</b> 8:20;18:6,10;31:19;32:12;33:18;37:19;38:12;41:18,22;42:2;44:3 <b>municipalities (1)</b> 7:8 <b>must (1)</b> 23:1 <b>MVA (7)</b> 11:23;13:1,2;28:16;32:17,17;33:24 <b>myself (1)</b> 39:4</p>	<p>24:3,14;25:5,18;26:23;28:19,20,20;29:1,7,21;30:9,13;31:3,11,12,15,20,22;32:5,21;33:2,7,22,25;38:21;42:4,16 <b>needed (4)</b> 23:18;26:12;32:7;43:1 <b>needing (2)</b> 24:23;42:12 <b>needs (8)</b> 10:11,16,21,22;14:1;33:10;34:10;42:1 <b>network (1)</b> 10:14 <b>new (2)</b> 21:5;38:9 <b>Next (17)</b> 4:17;8:10;9:4;10:15;11:19;13:9;16:16;17:22;21:21;22:16,24;23:20;25:8;27:2,17;36:14;39:18 <b>night (1)</b> 46:25 <b>noise (1)</b> 21:4 <b>non-transmission (1)</b> 24:9 <b>north (11)</b> 11:14,15;12:15;15:1,14,20;32:5;33:13;41:3;42:3,3 <b>northeast (2)</b> 6:23;37:9 <b>northern (6)</b> 11:18;29:13;30:7;31:6,7;33:19 <b>Northland (1)</b> 35:6 <b>northwest (2)</b> 14:25;15:12 <b>note (1)</b> 22:8 <b>notes (3)</b> 35:14;44:20,22 <b>notice (1)</b> 23:14 <b>NT (1)</b> 10:2 <b>NTAC (1)</b> 41:24 <b>nuclear (1)</b> 43:20 <b>nugget (1)</b> 12:17 <b>number (4)</b> 3:16,16;13:15;20:10 <b>numbers (3)</b> 3:14;29:6,6</p>	<p><b>O</b> <b>obligation (1)</b> 10:4 <b>obviously (1)</b> 16:17 <b>off (5)</b> 3:18;4:4;6:9;32:18;35:12 <b>office (1)</b> 18:23 <b>officially (1)</b> 26:3 <b>old (2)</b> 38:10;39:16 <b>one (16)</b> 4:12;5:6;11:21;13:9,10;16:7,7;19:23;24:27;19:29;12:31;2,23;40:17;41:2;42:9 <b>ones (2)</b> 38:9;43:5 <b>online (3)</b> 27:7;31:8;40:7 <b>only (6)</b> 4:12;25:23;32:17;33:17,22,23 <b>open (8)</b> 16:14;19:22;26:5,25;27:18;28:4,5;37:21 <b>operate (1)</b> 16:3 <b>operating (1)</b> 16:4 <b>operation (1)</b> 16:4 <b>operator (2)</b> 8:13,14 <b>opportunities (1)</b> 25:21 <b>opportunity (4)</b> 4:8;13:7;22:13;25:23 <b>opt (2)</b> 45:10,12 <b>optic (2)</b> 44:2,7 <b>optics (1)</b> 44:1 <b>option (1)</b> 45:16 <b>options (1)</b> 16:20 <b>orange (1)</b> 15:12 <b>Organization (2)</b> 28:11;40:5 <b>originally (1)</b> 39:14 <b>others (3)</b> 4:6;28:6;30:11</p>	<p><b>otherwise (1)</b> 39:10 <b>out (9)</b> 19:25;25:23;29:11;32:3,5,20;45:10,12,15 <b>outage (2)</b> 42:10,16 <b>Outborn (1)</b> 38:1 <b>outlined (3)</b> 8:17;15:12,19 <b>outlines (1)</b> 25:19 <b>outside (2)</b> 15:4,15 <b>over (9)</b> 3:24;6:24;7:25;9:2;12:6,14;20:13;28:19,19 <b>overhead (1)</b> 7:23 <b>overlaid (1)</b> 9:21 <b>Overland (29)</b> 2:9,12;28:7,8,8;34:16,24;35:3,5,11;36:11;39:25;40:3,3,12;41:1,4,9,13,18,21,24;42:23;44:9,11,20,24;45:3,5 <b>O-v-e-r-l-a-n-d (2)</b> 28:9;40:4 <b>overloading (1)</b> 40:13 <b>oversee (1)</b> 26:19 <b>overtake (1)</b> 15:22 <b>overview (4)</b> 5:10;6:20;7:17;16:11 <b>own (3)</b> 8:20;14:15;30:10 <b>owners (1)</b> 10:3</p>
<b>N</b>			<b>P</b>	
<p><b>name (8)</b> 3:19;6:11;8:3;20:15;27:22;36:19;37:23,24 <b>nations (2)</b> 7:7;18:23 <b>natural (3)</b> 5:11;19:1,5 <b>necessarily (1)</b> 29:25 <b>necessary (2)</b> 13:2;25:13 <b>need (40)</b> 5:21,22,24;8:7;9:18,19;10:20;13:24,25;14:13;23:23,23;</p>			<p><b>PAGE (6)</b> 2:1;23:9;32:24;34:2,7;46:17 <b>paragraph (1)</b> 35:24 <b>part (11)</b> 8:11,22;10:5,19,22;11:9;12:22,22;14:21,23;19:10 <b>Parte (3)</b> 2:18;35:23;36:12 <b>participate (1)</b> 4:22 <b>participation (1)</b> 20:21</p>	

<p><b>particular (4)</b> 8:8;10:10;11:5; 12:22</p> <p><b>partner (1)</b> 43:9</p> <p><b>parts (1)</b> 39:20</p> <p><b>pass (1)</b> 3:22</p> <p><b>past (1)</b> 7:3</p> <p><b>path (1)</b> 3:8</p> <p><b>paths (1)</b> 11:17</p> <p><b>paying (1)</b> 38:24</p> <p><b>people (5)</b> 21:18;27:23;33:2; 36:8;38:12</p> <p><b>people's (1)</b> 30:11</p> <p><b>percent (8)</b> 7:4;12:10,15;15:8; 29:14,14,16;44:12</p> <p><b>percentage (2)</b> 44:3,4</p> <p><b>period (9)</b> 22:3;24:13;25:10, 11;26:5,14,17;27:14; 46:20</p> <p><b>Permit (28)</b> 2:15;4:1,21;5:16, 22,23;14:23;21:1,13, 23,24;22:1,6,9,15,19, 21,22;23:22;25:3,15; 26:10,16,23;33:13,15, 20;34:1</p> <p><b>permits (3)</b> 5:13;22:5,25</p> <p><b>permitted (2)</b> 12:4;21:15</p> <p><b>permitting (4)</b> 4:24;16:17;20:24; 25:20</p> <p><b>person (1)</b> 4:12</p> <p><b>personal (3)</b> 30:19,23;46:19</p> <p><b>perspective (3)</b> 13:19;19:7,8</p> <p><b>petition (1)</b> 14:16</p> <p><b>phone (1)</b> 20:10</p> <p><b>physical (2)</b> 27:5,8</p> <p><b>piece (2)</b> 16:21;19:18</p> <p><b>pipe (1)</b> 30:7</p> <p><b>place (1)</b> 14:18</p>	<p><b>plan (3)</b> 18:16;19:11;46:11</p> <p><b>planning (4)</b> 8:4,6;10:7;40:24</p> <p><b>plans (1)</b> 21:11</p> <p><b>plants (4)</b> 31:12;32:4,5,20</p> <p><b>playground (1)</b> 39:18</p> <p><b>please (3)</b> 4:6;27:21;28:2</p> <p><b>pm (3)</b> 27:15;46:21;47:1</p> <p><b>point (8)</b> 10:9;15:14,20;16:5; 21:23;22:10,14;24:19</p> <p><b>points (2)</b> 8:9;28:23</p> <p><b>Pollution (1)</b> 19:2</p> <p><b>portfolio (14)</b> 8:11,16,21;9:18; 10:5,6,23,23;12:11, 21;33:4;34:5,5;43:3</p> <p><b>portion (3)</b> 4:11;6:6,23</p> <p><b>possible (1)</b> 17:11</p> <p><b>post (1)</b> 34:5</p> <p><b>potential (4)</b> 16:15;17:8;24:20; 25:1</p> <p><b>Power (38)</b> 2:19;6:13,17,21; 8:5;9:20;11:10,11,13, 17,24;12:1,10,10; 31:3,9,10,24;32:10, 11,17,21,22;33:12; 36:22;37:3,8,11,13, 14;38:11,14,16,23; 39:17;40:25;41:8,8</p> <p><b>Power's (2)</b> 29:13;31:4</p> <p><b>practical (1)</b> 24:25</p> <p><b>Prairie (2)</b> 2:22;42:7</p> <p><b>pre (1)</b> 34:5</p> <p><b>preliminary (1)</b> 25:12</p> <p><b>prepare (3)</b> 5:25;23:19,25</p> <p><b>prepared (2)</b> 6:2;17:2</p> <p><b>present (2)</b> 3:11;27:5</p> <p><b>presentation (2)</b> 6:7;17:2</p> <p><b>PRESENTATIONS (1)</b> 2:1</p>	<p><b>presented (1)</b> 10:17</p> <p><b>presenters (1)</b> 4:7</p> <p><b>preservation (1)</b> 18:22</p> <p><b>Presidential (5)</b> 2:15;33:13,15,19, 25</p> <p><b>presume (1)</b> 44:1</p> <p><b>pretty (2)</b> 39:3;42:2</p> <p><b>previously (1)</b> 14:2</p> <p><b>primarily (1)</b> 7:13</p> <p><b>privacy (1)</b> 37:2</p> <p><b>probably (3)</b> 32:15,20;40:14</p> <p><b>problem (5)</b> 29:5;40:13;42:1,14, 18</p> <p><b>problems (1)</b> 40:19</p> <p><b>proceeding (2)</b> 5:24;45:15</p> <p><b>proceedings (4)</b> 2:24;14:15;23:24; 47:1</p> <p><b>process (23)</b> 4:1,24;6:8;16:13, 22;19:10;20:6,8,22, 24,25;21:22,23; 22:13;24:19;25:20; 26:1,3;27:13;39:8; 45:24;46:4,24</p> <p><b>produce (1)</b> 9:10</p> <p><b>produced (1)</b> 9:24</p> <p><b>progress (2)</b> 10:7;20:6</p> <p><b>Project (90)</b> 2:17;3:5,14,23; 4:19,25;5:2,19;6:4, 16;7:10,16,21;8:8,9, 11,17,22;10:1,4,10, 16;11:5,8,12;12:22; 13:3,8,14,20;14:3,8, 22;15:6;16:10,11,24; 17:3,7,14;18:6,12; 20:4,9,12,18,25;21:3, 15,19,20;22:6,10,21; 23:22;24:2,3,10,14, 16,23;25:5,7,17; 26:20;28:13;29:12, 13,16,19;30:6,7,10, 10;31:6,7;32:15;33:3, 4;34:22,25;35:20; 41:5,7,7,11;42:10,12; 44:11;46:5</p>	<p><b>projected (1)</b> 9:7</p> <p><b>projects (9)</b> 8:12,21,25;14:2; 21:9,25;22:20;30:6,8</p> <p><b>project's (1)</b> 23:8</p> <p><b>proof (1)</b> 39:12</p> <p><b>property (7)</b> 30:19,23;37:9,12; 38:8,24;45:13</p> <p><b>proposed (30)</b> 3:3,7;4:19,25;5:19; 6:3,16;13:1,16,20; 14:2,4,6,24;15:7,10; 16:9;17:3,6,9;22:7; 24:2,14,23;25:6; 28:24,25;36:22;37:3, 16</p> <p><b>proposing (2)</b> 14:7;15:22</p> <p><b>protection (1)</b> 44:8</p> <p><b>proved (1)</b> 43:23</p> <p><b>provide (6)</b> 5:9;20:24;23:7,12; 26:15;27:3</p> <p><b>provided (1)</b> 27:7</p> <p><b>providing (2)</b> 4:22;21:16</p> <p><b>Public (20)</b> 3:2,15,20;4:20; 5:10;16:21;18:8; 19:22;20:16;22:20; 25:10,11,22;26:4,7, 13,18,25;39:3;46:14</p> <p><b>purposes (1)</b> 13:21</p> <p><b>pushed (3)</b> 42:15,15,15</p> <p><b>put (4)</b> 33:14;38:9,19; 42:23</p> <p><b>putting (1)</b> 39:18</p>	<p>43:18</p> <p><b>Range (7)</b> 3:4;6:15;7:18;15:1, 13;31:5;33:23</p> <p><b>Rapids (1)</b> 15:2</p> <p><b>ratepayers (2)</b> 29:25;30:1</p> <p><b>rather (1)</b> 39:16</p> <p><b>reactors (1)</b> 43:20</p> <p><b>read (3)</b> 5:3;10:18;11:7</p> <p><b>realize (2)</b> 17:15;18:1</p> <p><b>really (16)</b> 4:14;5:1;10:8; 11:23;16:12;19:17; 21:19;28:21,23,24; 29:20;33:2,9;34:3; 39:17;46:23</p> <p><b>reason (2)</b> 42:11,15</p> <p><b>reasonable (1)</b> 13:3</p> <p><b>reasonably (1)</b> 18:6</p> <p><b>receive (2)</b> 4:20;25:10</p> <p><b>received (1)</b> 22:4</p> <p><b>recently (3)</b> 12:13;38:1;40:21</p> <p><b>Recess (1)</b> 46:7</p> <p><b>recognize (1)</b> 21:18</p> <p><b>record (12)</b> 2:25;4:15,20;20:22; 25:9;26:22;27:9; 33:14;35:22;39:19; 44:13,22</p> <p><b>recovered (1)</b> 43:12</p> <p><b>recreation (1)</b> 17:25</p> <p><b>red (2)</b> 8:17;28:10</p> <p><b>redoing (1)</b> 29:17</p> <p><b>reduce (2)</b> 21:3,17</p> <p><b>reduced (1)</b> 18:5</p> <p><b>reducing (1)</b> 10:25</p> <p><b>redundant (1)</b> 11:17</p> <p><b>reference (2)</b> 7:17;17:24</p> <p><b>refinery (1)</b> 43:21</p>
			<b>Q</b>	
				<p><b>questionable (1)</b> 35:24</p> <p><b>quick (1)</b> 3:19</p> <p><b>quiet (1)</b> 39:3</p> <p><b>quite (2)</b> 18:2;23:11</p>
			<b>R</b>	
				<p><b>radioactivity (1)</b></p>

<p><b>regarded (1)</b> 30:20</p> <p><b>region (3)</b> 11:6,14;14:1</p> <p><b>regional (11)</b> 8:4,12;9:2;10:6,13; 12:23;13:21;30:15, 15,15;40:24</p> <p><b>region's (1)</b> 8:13</p> <p><b>regular (2)</b> 12:16;44:19</p> <p><b>regulate (1)</b> 5:11</p> <p><b>regulatory (2)</b> 11:25;12:25</p> <p><b>reiterate (2)</b> 13:8,18</p> <p><b>relate (1)</b> 13:16</p> <p><b>related (3)</b> 14:18;34:21;41:5</p> <p><b>relevant (2)</b> 18:13;20:2</p> <p><b>reliability (7)</b> 9:23;10:13,24; 11:17;14:4;29:13; 30:7</p> <p><b>reliable (2)</b> 9:1;11:2</p> <p><b>relies (1)</b> 20:20</p> <p><b>rely (1)</b> 21:19</p> <p><b>remain (1)</b> 26:5</p> <p><b>remember (1)</b> 43:14</p> <p><b>reminders (1)</b> 46:13</p> <p><b>remove (1)</b> 13:1</p> <p><b>renewable (2)</b> 7:5;12:15</p> <p><b>replacement (1)</b> 21:11</p> <p><b>Report (11)</b> 2:18;6:1;23:25; 25:18;26:11,18; 28:18;35:23;40:10, 19;41:24</p> <p><b>reporter (4)</b> 4:13,15;27:22; 46:15</p> <p><b>reports (2)</b> 24:1;26:16</p> <p><b>represent (1)</b> 25:21</p> <p><b>representation (1)</b> 22:17</p> <p><b>representing (2)</b> 28:11;40:4</p> <p><b>represents (1)</b></p>	<p>25:25</p> <p><b>request (1)</b> 44:21</p> <p><b>require (2)</b> 5:20;23:24</p> <p><b>required (1)</b> 18:4</p> <p><b>residents (1)</b> 30:4</p> <p><b>resources (14)</b> 17:17,19,24;18:1,7, 18,19,19,21,24;19:2, 5,6,14</p> <p><b>respect (1)</b> 28:1</p> <p><b>respectful (1)</b> 4:6</p> <p><b>responsible (1)</b> 8:5</p> <p><b>rest (2)</b> 14:20;44:12</p> <p><b>review (9)</b> 4:1,24;5:23;6:8; 20:16;23:10,10;26:3; 46:16</p> <p><b>reviewed (1)</b> 19:11</p> <p><b>Ridge (1)</b> 32:18</p> <p><b>right (7)</b> 11:19;13:9;31:14; 38:16;39:18;43:19,20</p> <p><b>right-of-way (5)</b> 15:9,17,23;18:11; 19:9</p> <p><b>river (2)</b> 15:14,20</p> <p><b>road (1)</b> 18:13</p> <p><b>roads (1)</b> 18:11</p> <p><b>Rock (1)</b> 32:13</p> <p><b>roof (1)</b> 29:20</p> <p><b>room (3)</b> 22:1;27:6,10</p> <p><b>Ross (5)</b> 36:15,16,20,20; 37:17</p> <p><b>R-o-s-s (1)</b> 36:21</p> <p><b>roughly (1)</b> 34:6</p> <p><b>rounds (2)</b> 16:14;19:22</p> <p><b>route (14)</b> 5:13,22,23;14:23, 24;15:7,10;22:25; 23:22;24:22;25:3; 26:23;37:7;42:6</p> <p><b>routes (1)</b> 17:9</p>	<p><b>routing (6)</b> 14:20;16:13,15; 20:6;21:10;24:8</p> <p><b>rows (1)</b> 25:20</p> <p><b>rules (1)</b> 4:5</p> <p><b>runs (3)</b> 15:13,19;40:16</p> <hr/> <p style="text-align: center;"><b>S</b></p> <hr/> <p><b>SAARAH (7)</b> 3:1,19;6:14;17:1; 20:13;23:21;46:23</p> <p><b>Saarah's (1)</b> 27:11</p> <p><b>sabotage (2)</b> 36:1,3</p> <p><b>same (4)</b> 3:11,12;22:19; 28:22</p> <p><b>sample (3)</b> 21:22;22:1,19</p> <p><b>Savings (1)</b> 7:3</p> <p><b>saying (2)</b> 39:7,12</p> <p><b>schedule (1)</b> 34:20</p> <p><b>school (1)</b> 30:24</p> <p><b>scope (1)</b> 25:17</p> <p><b>Scoping (1)</b> 3:3</p> <p><b>screen (1)</b> 14:25</p> <p><b>second (5)</b> 3:16;19:24;24:25; 25:14;26:14</p> <p><b>section (7)</b> 4:3;30:2;35:25; 36:4,16;41:25;45:19</p> <p><b>sections (1)</b> 23:11</p> <p><b>seeing (3)</b> 28:19;38:11,18</p> <p><b>seek (1)</b> 22:14</p> <p><b>seem (1)</b> 39:16</p> <p><b>seems (2)</b> 38:22,25</p> <p><b>segment (7)</b> 15:11,12,13,15,19, 21;16:6</p> <p><b>segments (1)</b> 15:10</p> <p><b>senate (1)</b> 5:15</p> <p><b>send (1)</b> 27:8</p>	<p><b>sense (5)</b> 33:8,9,21;34:9,11</p> <p><b>separate (1)</b> 41:7</p> <p><b>Separately (1)</b> 6:1</p> <p><b>seriously (1)</b> 43:22</p> <p><b>serve (1)</b> 7:6</p> <p><b>served (2)</b> 12:12,14</p> <p><b>service (5)</b> 6:22;7:15;14:16; 16:25;35:8</p> <p><b>services (1)</b> 18:8</p> <p><b>set (1)</b> 17:4</p> <p><b>several (1)</b> 23:6</p> <p><b>shape (1)</b> 21:20</p> <p><b>shield (1)</b> 44:2</p> <p><b>short (1)</b> 45:5</p> <p><b>show (2)</b> 32:11;37:11</p> <p><b>showed (1)</b> 32:25</p> <p><b>shown (1)</b> 14:24</p> <p><b>shut (8)</b> 31:12,19,23;32:3,4, 6;34:17;36:6</p> <p><b>shutting (2)</b> 31:18,19</p> <p><b>side (3)</b> 15:24;18:14;19:6</p> <p><b>signed (2)</b> 28:5;37:21</p> <p><b>significant (1)</b> 43:24</p> <p><b>Simulator (1)</b> 2:19</p> <p><b>single (2)</b> 15:17;29:19</p> <p><b>Sioux (1)</b> 32:19</p> <p><b>site (1)</b> 5:12</p> <p><b>situation (2)</b> 12:19;38:20</p> <p><b>six (1)</b> 38:5</p> <p><b>size (2)</b> 24:4,5</p> <p><b>slide (16)</b> 4:17;5:18;6:20; 8:10;10:15;11:19; 17:15;21:21;22:16, 24;23:20;24:17;</p>	<p>25:19;27:2,17;44:14</p> <p><b>slides (2)</b> 17:22;19:16</p> <p><b>small (1)</b> 34:12</p> <p><b>smaller (1)</b> 16:7</p> <p><b>socioeconomic (1)</b> 43:7</p> <p><b>Socioeconomics (1)</b> 29:2</p> <p><b>somebody (1)</b> 28:1</p> <p><b>son (2)</b> 38:10;39:17</p> <p><b>sooner (1)</b> 24:10</p> <p><b>Sorry (2)</b> 36:18,20</p> <p><b>sort (1)</b> 10:21</p> <p><b>sounds (2)</b> 11:23;34:6</p> <p><b>south (5)</b> 11:14,14;37:10; 42:3,4</p> <p><b>southeastern (1)</b> 15:2</p> <p><b>southern (3)</b> 13:13,13;31:5</p> <p><b>southwest (2)</b> 32:13;33:5</p> <p><b>speak (5)</b> 28:3,6;39:24;45:2; 46:9</p> <p><b>speaker (3)</b> 27:20;36:15;39:3</p> <p><b>SPEAKERS (2)</b> 2:8;37:20</p> <p><b>speaking (1)</b> 28:2</p> <p><b>speaks (1)</b> 4:12</p> <p><b>special (2)</b> 21:13;22:5</p> <p><b>specialist (1)</b> 6:13</p> <p><b>specific (4)</b> 11:20;22:6;29:7; 30:25</p> <p><b>specifically (6)</b> 12:7;13:24;14:10; 30:13,16;46:4</p> <p><b>spell (2)</b> 27:21;37:23</p> <p><b>spent (2)</b> 43:10,19</p> <p><b>Split (1)</b> 32:13</p> <p><b>spoke (1)</b> 22:18</p> <p><b>Square (5)</b> 2:20;40:9,16,20;</p>
--	---	--	--	--

<p>41:1 <b>St (7)</b> 6:15;7:19;15:3,14, 20,21;16:8 <b>staff (6)</b> 4:23;5:24;20:20; 23:19,24;46:3 <b>stakeholder (3)</b> 16:13;19:18,21 <b>stand (1)</b> 8:2 <b>standard (2)</b> 21:12,24 <b>standpoint (2)</b> 17:18;18:21 <b>stands (1)</b> 43:14 <b>star (1)</b> 25:25 <b>start (2)</b> 3:18;22:18 <b>Starting (6)</b> 6:20;15:11;21:23; 22:10;26:3;28:13 <b>State (13)</b> 4:23;7:4;9:16;10:3; 14:11;18:22;20:2; 27:21;36:18;37:23; 39:2;43:5;46:3 <b>stated (7)</b> 24:3,14;25:5;28:19, 20,20;29:1 <b>State's (2)</b> 19:11;20:23 <b>stick (1)</b> 39:3 <b>still (3)</b> 14:7;24:3;45:13 <b>Stone (1)</b> 32:20 <b>strategies (1)</b> 17:10 <b>string (1)</b> 15:24 <b>strong (1)</b> 28:16 <b>structure (1)</b> 24:7 <b>structures (4)</b> 7:24;15:18;16:1; 18:1 <b>studied (2)</b> 24:16;25:7 <b>studies (1)</b> 17:8 <b>stuff (3)</b> 10:20;35:16;39:10 <b>submissions (1)</b> 46:19 <b>substation (9)</b> 7:18;12:1,2;15:1,5, 13,21;16:8,9 <b>substations (3)</b></p>	<p>7:20;15:3,6 <b>sufficient (1)</b> 38:11 <b>summary (1)</b> 24:17 <b>superficial (1)</b> 39:16 <b>support (1)</b> 14:4 <b>supposedly (1)</b> 42:12 <b>sure (7)</b> 4:7;5:7;9:1,9; 27:24;31:25;34:16 <b>surveys (1)</b> 16:21 <b>System (7)</b> 2:19;8:14;9:2,17; 23:9;24:2;42:1 <b>systems (1)</b> 8:6</p>	<p>3:7;15:5,10;25:12; 26:8;43:20 <b>throughout (1)</b> 21:14 <b>Thursday (1)</b> 3:10 <b>tie (1)</b> 34:4 <b>till (1)</b> 46:7 <b>Timeline (2)</b> 2:17;16:12 <b>timing (3)</b> 24:5,9;27:24 <b>TL-22-619 (1)</b> 35:7 <b>TL-25-112 (1)</b> 3:17 <b>today (11)</b> 3:2,6;4:9,18;6:14; 9:14;12:19;13:19; 14:7;40:6,19 <b>today's (1)</b> 27:4 <b>together (2)</b> 8:25;42:24 <b>toilet (1)</b> 29:11 <b>tomorrow (2)</b> 3:7;44:25 <b>ton (1)</b> 18:4 <b>tonic (1)</b> 39:14 <b>tonight (7)</b> 4:2,5;5:20;20,23; 23:5;27:23;46:22 <b>tons (1)</b> 39:12 <b>took (1)</b> 11:4 <b>top (1)</b> 8:18 <b>topics (3)</b> 3:11;11:20;24:18 <b>total (1)</b> 7:6 <b>totally (1)</b> 36:25 <b>touch (1)</b> 20:9 <b>township (2)</b> 20:1;30:24 <b>townships (1)</b> 30:22 <b>tracks (1)</b> 21:14 <b>traffic (1)</b> 11:1 <b>Tranche (3)</b> 8:19,22,23 <b>transcribed (1)</b> 46:15</p>	<p><b>transcribing (1)</b> 4:13 <b>transfers (3)</b> 11:8;12:7,23 <b>transition (2)</b> 31:15,16 <b>Transmission (36)</b> 2:20;3:4,8;5:20; 6:18;7:1,10,13,23;8:4, 12;9:2,14,19;10:2,10; 12:4;15:25;21:25; 22:19;24:15;25:6; 31:6,7,17,18,22;32:6; 33:3,19,22;40:24; 41:16;44:7;45:9,21 <b>transportation (1)</b> 18:9 <b>Treasure (5)</b> 2:11;37:24,25; 39:19,19 <b>treatment (1)</b> 43:11 <b>treatments (1)</b> 43:12 <b>tree (2)</b> 21:5,11 <b>T-r-e-s-s-u-r-e (1)</b> 39:20 <b>Tribal (1)</b> 18:23 <b>triggered (2)</b> 29:17;43:16 <b>true (2)</b> 32:1;43:23 <b>trying (1)</b> 9:8 <b>Tuma (1)</b> 5:6 <b>tune (1)</b> 40:7 <b>tunnel (1)</b> 41:8 <b>turn (2)</b> 28:3;39:25 <b>twice (1)</b> 41:22 <b>two (4)</b> 3:14;5:20;10:21; 28:5 <b>tying (1)</b> 42:24 <b>type (3)</b> 24:5;28:24;43:13 <b>types (2)</b> 24:7,7 <b>typically (1)</b> 24:4</p>	<p>5:16;22:21 <b>Under (4)</b> 5:24;19:12;41:12; 45:21 <b>undertook (1)</b> 19:20 <b>unique (2)</b> 21:16;24:21 <b>unit (1)</b> 31:1 <b>units (1)</b> 30:22 <b>unusual (1)</b> 43:15 <b>up (29)</b> 8:2,19;10:19;27:18; 28:4,5,6,13;29:14,19; 31:8,20,22;33:13; 34:17;36:6;37:10,21, 21,22;38:9,16;39:18; 40:1;42:1,5;45:2; 46:10,11 <b>updated (5)</b> 18:15;20:5,7;40:21; 42:8 <b>upgraded (2)</b> 42:19,25 <b>upper (2)</b> 10:24;11:3 <b>use (6)</b> 8:19;9:5,10,14; 22:4,20 <b>used (3)</b> 29:6;38:6;44:3 <b>useless (1)</b> 37:4 <b>Utilities (7)</b> 3:15,20;5:11,12; 7:12;20:17;30:23 <b>utility (5)</b> 7:4,11;12:13;30:19; 44:8</p>
	<b>T</b>			
	<p><b>Table (5)</b> 2:16,21,22;34:3,3 <b>talk (5)</b> 3:25;6:15;25:24; 41:15;46:4 <b>talked (1)</b> 26:9 <b>talking (5)</b> 19:25;31:15;33:11; 36:1;41:2 <b>talks (2)</b> 30:3;41:25 <b>taller (1)</b> 18:2 <b>tariffs (2)</b> 29:9;35:17 <b>tax (2)</b> 30:19,22 <b>taxes (2)</b> 30:23;38:25 <b>team (1)</b> 8:5 <b>teams (1)</b> 39:9 <b>tear (1)</b> 38:9 <b>telling (1)</b> 36:6 <b>term (4)</b> 8:6,19,20;9:3 <b>territory (2)</b> 6:22;7:15 <b>Thanks (1)</b> 46:6 <b>third (3)</b> 16:6;25:4,16 <b>though (1)</b> 35:20 <b>three (6)</b></p>			
			<b>U</b>	
			<p><b>uh (1)</b> 9:20 <b>ultimately (2)</b></p>	<p style="text-align: center;"><b>V</b></p> <p><b>VA (1)</b> 38:6 <b>validity (2)</b> 28:18;29:1 <b>value (1)</b> 37:2 <b>vandalism (1)</b> 37:5 <b>variability (1)</b> 11:10 <b>variance (1)</b> 29:18 <b>variety (1)</b> 18:20 <b>vegetation (4)</b> 19:7,9,10;21:6 <b>verbal (1)</b> 27:4</p>

<b>verbatim (1)</b> 17:23 <b>verified (1)</b> 36:5 <b>via (1)</b> 46:14 <b>virtual (1)</b> 3:10 <b>visual (1)</b> 22:17 <b>Voit (6)</b> 2:10;36:15,16,20, 20;37:17 <b>V-o-i-t (1)</b> 36:21 <b>voltage (2)</b> 15:9;21:25 <b>voltages (1)</b> 24:6	10:19 <b>wildfire (1)</b> 36:1 <b>wildfires (1)</b> 36:3 <b>wildlife (2)</b> 19:7;21:6 <b>wind (3)</b> 31:25;32:16,16 <b>Wing (1)</b> 28:10 <b>Winter (17)</b> 2:4;8:1,3;26:24; 34:20,21,23;35:1; 36:10;40:23,23;41:6, 11,14,19;44:6,10 <b>wire (1)</b> 8:6 <b>wires (1)</b> 15:23 <b>Wisconsin (3)</b> 7:14;12:2;32:7 <b>wit (1)</b> 2:25 <b>within (5)</b> 15:8;17:20;18:8,23; 40:21 <b>without (2)</b> 36:25;42:18 <b>WOLF (2)</b> 28:12;40:4 <b>work (2)</b> 11:4;38:4 <b>worked (1)</b> 34:21 <b>working (1)</b> 19:12 <b>works (1)</b> 11:12 <b>World (3)</b> 28:11;29:11;40:4 <b>worry (1)</b> 10:18 <b>wow (1)</b> 39:17 <b>wrapping (1)</b> 46:11 <b>written (3)</b> 42:24;43:5;46:20	1 <b>1 (8)</b> 2:15,21,22;8:22; 15:11;33:1,14,16 <b>1,600 (1)</b> 6:24 <b>12th (1)</b> 35:22 <b>13 (3)</b> 2:16;34:3;36:17 <b>14 (3)</b> 2:5;7:8;34:4 <b>150,000 (1)</b> 7:6 <b>16 (1)</b> 7:3 <b>17 (1)</b> 33:4 <b>18 (2)</b> 38:10;39:16 <b>1950s (1)</b> 9:15 <b>1970s (1)</b> 9:16 <b>1998 (2)</b> 42:11,19 <b>1999 (3)</b> 28:13;34:25;40:14	<b>2029 (1)</b> 16:24 <b>2030 (1)</b> 35:8 <b>2032 (1)</b> 35:9 <b>2033 (1)</b> 16:25 <b>20th (1)</b> 26:3 <b>213 (1)</b> 32:17 <b>2200 (1)</b> 32:17 <b>230 (3)</b> 15:22;16:3;38:7 <b>23rd (3)</b> 26:6;27:14;46:21 <b>24 (1)</b> 29:3 <b>25 (2)</b> 12:10;29:14 <b>250 (1)</b> 38:15 <b>25th (1)</b> 42:11 <b>26 (1)</b> 34:20 <b>28 (2)</b> 2:9;37:5	<b>4:30 (2)</b> 27:15;46:21 <b>40 (2)</b> 2:12,19 <b>41 (1)</b> 2:20 <b>415 (1)</b> 29:12 <b>416 (1)</b> 29:12 <b>42 (2)</b> 2:21,22 <b>428 (1)</b> 29:3 <b>43 (2)</b> 29:14,16 5 <b>5 (3)</b> 2:19;40:10,11 <b>50 (4)</b> 7:4;12:14;38:16; 42:8 <b>50s (1)</b> 9:15 <b>550 (1)</b> 41:19 6 <b>6 (4)</b> 2:3,20;41:22,23 <b>6:57 (1)</b> 46:7 <b>60 (3)</b> 34:3,7;42:8 <b>607 (1)</b> 34:21 <b>67 (1)</b> 7:21 7 <b>7 (3)</b> 2:21;42:20,21 <b>7:05 (3)</b> 46:6,7;47:1 <b>70s (1)</b> 9:15 8 <b>8 (4)</b> 2:4,22;42:20,21 <b>8,700 (1)</b> 6:25 <b>800 (5)</b> 11:23;13:1,2;28:16; 33:24 <b>81 (1)</b> 30:4 <b>833 (3)</b>
<b>W</b>	<b>Y</b>	<b>2</b>	<b>3</b>	
<b>wait (1)</b> 28:2 <b>wants (3)</b> 4:8;37:22;45:21 <b>Warba (1)</b> 15:1 <b>water (3)</b> 18:19,24;44:2 <b>way (11)</b> 9:5,12,23,24;19:12; 34:25;36:22;40:8,13, 18;43:4 <b>ways (9)</b> 9:10;11:12;20:8,24; 21:3,17;23:3;24:13; 25:4 <b>weather (2)</b> 36:1,3 <b>web (1)</b> 23:9 <b>website (4)</b> 6:5;20:4,8,12 <b>week (1)</b> 26:5 <b>weeks (1)</b> 43:11 <b>welcome (1)</b> 27:1 <b>weren't (1)</b> 32:15 <b>west (7)</b> 11:14,15;31:10,11; 32:5,19;42:4 <b>Weston (1)</b> 42:13 <b>what's (5)</b> 9:21;11:23;12:17; 33:24;45:8 <b>WHEREUPON (1)</b> 2:24 <b>whole (1)</b>	<b>yard (1)</b> 38:15 <b>year (2)</b> 16:16;43:10 <b>years (10)</b> 7:3;12:10;16:16; 35:13;37:5;38:3,5; 40:22;42:8;43:19 <b>Yep (1)</b> 37:17	<b>2 (5)</b> 2:16;8:23;15:19; 34:14,15 <b>2.1 (1)</b> 33:1 <b>20 (3)</b> 2:6;40:21;43:19 <b>200 (1)</b> 34:7 <b>2000s (2)</b> 12:5,20 <b>2001 (1)</b> 32:14 <b>2004 (1)</b> 28:13 <b>2020 (1)</b> 32:3 <b>2022 (1)</b> 8:21 <b>2023 (2)</b> 29:6;43:10 <b>2024 (5)</b> 8:15,24;13:22;29:4, 5 <b>2025 (5)</b> 16:12,13;19:18; 20:5;35:22 <b>2026 (5)</b> 16:16;26:12,24; 29:8;46:21	<b>3 (5)</b> 2:2,17;35:3,4,19 <b>3.2.2 (2)</b> 35:25;36:5 <b>302 (1)</b> 32:17 <b>32 (1)</b> 35:10 <b>33 (1)</b> 2:15 <b>3397.1 (1)</b> 34:5 <b>34 (1)</b> 2:16 <b>345 (7)</b> 3:4;5:19;7:22;16:5, 9;33:5;45:9 <b>35 (1)</b> 2:17 <b>36 (2)</b> 2:10,18 <b>3604.4 (1)</b> 34:6 <b>37 (1)</b> 2:11 4 <b>4 (3)</b> 2:18;36:12,13	

33:17,22,23				
<b>9</b>				
<b>90 (1)</b> 30:4				
<b>900 (1)</b> 41:20				
<b>92 (1)</b> 15:7				
<b>95 (1)</b> 12:10				
<b>9th (1)</b> 3:10				

Ex 1

---

United States  
Department of Energy

Office of Electricity Delivery and Energy Reliability  
OE Docket No. PP-398

**Minnesota Power**

---



Presidential Permit  
No. PP-398

November 15, 2016

EXHIBIT  
#1

## Presidential Permit

Minnesota Power

Order No. PP-398

### I. BACKGROUND

The Department of Energy (DOE) has the responsibility for implementing Executive Order (EO) 10,485, as amended by EO 12,038, which requires the issuance of a Presidential Permit for the construction, operation, maintenance, or connection of electric transmission facilities at the United States international border.<sup>1</sup> DOE may issue such a Permit if it determines that the Permit is in the public interest and after obtaining favorable recommendations from the U.S. Departments of State and Defense.

On April 15, 2014, Minnesota Power filed an application with the Office of Electricity Delivery and Energy Reliability of the Department of Energy (DOE) for a Presidential Permit to construct, operate, maintain, and connect a 500 kilovolt (kV) transmission system across the U.S.-Canada border. Minnesota Power has its principal place of business in Duluth, Minnesota. Minnesota Power is an investor-owned utility and provides retail electric service to 144,000 customers and wholesale electric service to 16 municipalities and several industrial customers. Minnesota Power is an operating division of ALLETE, Inc.

The proposed Great Northern Transmission Line (GNTL) project is an overhead alternating current (AC) electric transmission line that would originate at the Dorsey Substation northwest of Winnipeg, Manitoba, Canada, and terminate at the existing Blackberry Substation east of Grand Rapids, Minnesota. On October 29, 2014, the Applicant submitted an amendment to their Presidential Permit application, changing the location of the proposed international border crossing to approximately 4.3 miles east of the original proposal, to cross the U.S./Canada border in Roseau County, Minnesota at latitude 49° 00' 00.00" N and longitude 95° 54' 50.49" W - approximately 2.9 miles east of Highway 89 in Roseau County. The length of the transmission facilities in the United States would be 224 miles.

DOE published a notice in the *Federal Register* on May 14, 2014, (79 Fed. Reg. 27587) inviting comments and motions to intervene. None was received.

---

<sup>1</sup> The authority to administer the International Electricity Regulatory Program through the regulation of electricity exports and the issuance of Presidential Permits has been delegated to the Assistant Secretary for the Office of Electricity Delivery and Energy Reliability (OE), in Redefinition Order No. 00-006.05 issued on November 17, 2014.

## II. DISCUSSION

In determining whether issuance of a Presidential Permit is in the public interest, DOE as a policy considers the environmental impacts of the proposed Project, determines the Project's impact on electric reliability, and weighs any other factors that DOE may consider relevant to the public interest. When, as in this case, a separate reliability analysis is conducted by an independent system operator (ISO), DOE's practice has been to review the ISO's analysis and make a determination as to the project's impact on reliability.

### A. Reliability Analysis

DOE staff reviewed the System Impact Study (MH-US Transmission Service Request (TSR) Sensitivity Analysis) conducted by the Midcontinent Independent System Operator (MISO) on the new transmission line for the MH-US south- (summer) and US-MH north- (winter) bound TSRs. In addition the staff reviewed GNTL Stability Analysis prepared by Siemens PTI, Short Circuit Study prepared by Power Engineers, and the New Tie Line Loop Flow Impact study report submitted by Minnesota Power.

MISO performed AC contingency analysis for transfer from Manitoba Hydro to the U.S. for 883MW during summer months and U.S. to Manitoba Hydro for winter months to accommodate new TSRs under the MISO's Open Access Transmission and Energy Markets Tariff. The combined transmission service requests seek to reserve up to 883MW of yearly, firm, network service from MISO to Manitoba Hydro during winter and from Manitoba Hydro to MISO during summer. The procedure, criteria, and methodology used to perform the System Impact Study in the May 30, 2014 Final Report for this 883MW transfer from Manitoba Hydro to the U.S. during summer and U.S. to Manitoba Hydro during winter months are acceptable, and the results indicate some constraints, improvements to mitigate these constraints, and the estimated costs required for these improvements.

The August 7, 2014 Stability Analysis Siemens Report concludes that dynamics analysis simulations to evaluate the dynamic performance of the GNTL, with 883MW of incremental north-to-south transfer, which represents south-bound transmission service requests from Manitoba to the United States, and 750MW of south-to-north transfer between Manitoba and the United States, which represent north-bound transmission service requests from the United States to Manitoba, are transiently stable and there are no violations of transient-period performance criteria.

The March 8, 2016 Short Circuit Study finds replacement of five roughly 40 year old 115kV circuit breakers that failed the simplified E/X screening and may have insufficient interrupting current ratings. Minnesota Power confirmed the above-mentioned breakers have been added to the replacement list prior to the energization of the GNTL. The results of the New Tie Line Loop Flow Impact study indicate that the Eastern Plan-GNTL project is a superior long-term plan for developing the proposed 500kV tie line between Manitoba and the United States.

DOE has consistently expressed its expectation that owners of international transmission facilities provide access across the border in accordance with the principles of comparable open access and non-discrimination contained in the Federal Power Act and articulated in the Federal Energy Regulatory Commission's Order No. 888, *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities*.<sup>1</sup> The facilities to be operated by Minnesota Power are deemed suitable for third party access to transmit electricity between the United States and Canada.

### **B. Environmental Analysis**

On June 27, 2014, DOE issued a Notice of Intent (NOI) (79 Fed. Reg. 36493) to prepare an environmental impact statement (EIS) for the GNTL Project and to conduct Public Scoping Meetings. The NOI also indicated that the GNTL Project would involve actions in floodplains and wetlands, which would be assessed in the EIS.

On June 26, 2015, DOE published a Notice of Availability (NOA) of the Draft EIS (80 Fed. Reg. 36795) and held a 45-day public review period. DOE held nine public hearings on the Draft EIS and received more than 200 comments on it. Concerns raised during the comment period were related to the following topics: the regulatory process/public involvement, purpose and need, project description/design, alternatives, human settlement, noise and vibration, air quality/greenhouse gases, socioeconomics, recreation and tourism, public health and safety, aesthetics, land use and ownership, cultural resources, wetlands and water quality, and biological resources. See Section 1.4.4.1 of the Final EIS for additional information regarding these comments. DOE considered all comments received on the Draft EIS in the preparation of the Final EIS. Comment letters and detailed responses are included in Appendix Y of the Final EIS. Throughout the EIS process, DOE worked with the cooperating agencies to ensure that impacts were appropriately addressed. DOE issued the Final EIS in November 2015 (80 Fed. Reg. 68868). In addition, concurrently with this Presidential Permit, DOE is issuing a Record of Decision regarding its grant of the Permit.

### **C. Concurrences**

The Secretary of State and the Secretary of Defense concur with the issuance of a Presidential Permit to Minnesota Power.

---

<sup>1</sup> *Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, 61 Fed. Reg. 21,540 (May 10, 1996), FERC Stats. & Regs. ¶ 31,036 (1996), *order on reh'g*, Order No. 888-A, 62 Fed. Reg. 12,274 (Mar. 14, 1997), FERC Stats. & Regs. ¶ 31,048 (1997), *order on reh'g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *order on reh'g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff'd in relevant part Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000) (*TAPS v. FERC*), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

### **III. FINDINGS AND DECISION**

Based on the information available, DOE staff has determined that the 883 MW of incremental north-to-south transfer, which represents south-bound transmission service requests from Manitoba to the United States, and 750 MW of south-to north transfer between Manitoba and the U.S., which represents north-bound transmission service requests from the United States to Manitoba, will not have a negative impact on the reliability of the United States electric grid if operated consistent with both MISO and North American Electric Reliability Corporation (NERC) policies and standards, terms and conditions of the Presidential Permit and other regulatory and statutory requirements.

In addition to DOE's reliability determination, based upon the above discussion and analysis of environmental issues, and the concurrences of the Departments of State and Defense, DOE determines that the issuance of a Presidential Permit to Minnesota Power is consistent with the public interest.

### **IV. DATA COLLECTION AND REPORTING**

The responsibility for the data collection and reporting under Presidential Permits authorizing electric transmission facilities at the U.S. international border and orders authorizing electricity exports to a foreign country has been transferred from OE to DOE's Energy Information Administration (EIA). Minnesota Power is required to submit Form EIA-111 "Quarterly Electricity Imports and Exports Report" as specified by the EIA, or any successor form. Minnesota Power is instructed to follow EIA instructions in utilizing the Data xChange Community Portal. Questions regarding the data collection and reporting requirements can be directed to the EIA by email at [EIA4USA@eia.gov](mailto:EIA4USA@eia.gov) or by phone at 1-855-342-4872.

### **V. ORDER**

Pursuant to the provisions of Executive Order 10,485, as amended by EO 12,038, and the regulations issued thereunder (Title 10, Code of Federal Regulations, Part 205), permission is granted to Minnesota Power to construct, operate, maintain, and connect electric transmission facilities at the international border of the United States and Canada, as further described in Article 2 below, upon the following conditions:

Article 1. The facilities herein described shall be subject to all conditions, provisions and requirements of this Permit. This Permit may be modified or revoked by the President of the United States without notice, or by DOE after public notice, and may be amended by DOE after proper application thereto.

Article 2. The facilities covered by and subject to this Permit shall include the following facilities and all supporting structures within the right-of-way occupied by such facilities:

A 500-kV overhead, single circuit, alternating current (AC) electric transmission system extending from the Canadian Province of Manitoba crossing the U.S.

Canada border in Roseau County, Minnesota at latitude 49° 00' 00.00" N and longitude 95° 54' 50.49" W, to the proposed Iron Range 500 kV Substation, located just east of the existing Blackberry Substation near Grand Rapids, Minnesota.

Article 3. The facilities described in Article 2 above, shall be designed and operated in accordance with all policies and standards of the Federal Energy Regulatory Commission, NERC, Regional Entities, Reliability Coordinators, and independent system operators, or their successors, as appropriate, on such terms as expressed therein and as such criteria, standards, and guides may be amended from time to time.

Furthermore, the facilities described in Article 2 shall be operated in such a manner that the scheduled rate of transmission of electric energy entering the United States over the facilities operated herein shall not exceed 883MW and south-to-north transfers shall not exceed 750MW.

Article 4. Minnesota Power shall implement the Project-specific avoidance, minimization, and mitigation measures contained in the Final EIS, the Biological Opinion, and the Section 106 Programmatic Agreement, and referenced in the Record of Decision.

Article 5. No change shall be made in the facilities covered by this Permit or in the authorized operation or connection of these facilities unless such change has been approved by DOE.

Article 6. Minnesota Power shall at all times maintain the facilities covered by this Permit in a satisfactory condition so that all requirements of the National Electric Safety Code in effect at the time of construction are fully met.

Article 7. The operation and maintenance of the facilities covered by this Permit shall be subject to the inspection and approval of a designated representative of DOE, who shall be an authorized representative of the United States for such purposes. Minnesota Power shall allow officers or employees of the United States, with written authorization, free and unrestricted access into, through and across any lands occupied by these facilities in the performance of their duties.

Article 8. Minnesota Power shall investigate any complaints from nearby residents of radio or television interference identifiably caused by the operation of the facilities covered by this Permit. Minnesota Power shall take appropriate action as necessary to mitigate such situations. Complaints from individuals residing within one-half mile of the centerline of the transmission line must be resolved. Minnesota Power shall maintain written records of all complaints received and of the corrective actions taken.

Article 9. The United States shall not be responsible or liable for damages of any kind which may arise from or be incident to the exercise of the privileges granted herein. Minnesota Power shall hold the United States harmless from any and all such claims.

Article 10. Minnesota Power shall arrange for the installation and maintenance of appropriate metering equipment to record permanently the hourly flow of all electric energy transmitted between the United States and Canada over the facilities authorized herein. Minnesota Power shall make and preserve full and complete records with respect to the electric energy transactions between the United States and Canada. Minnesota Power shall collect and submit the data to EIA as required by and in accordance with the procedures of Form EIA-111, "Quarterly Electricity Imports and Exports Report" or its successor form.

Article 11. Neither this Permit nor the facilities covered by this Permit, or any part thereof, shall be transferable or assignable, unless specifically authorized by DOE in accordance with Title 10, Code of Federal Regulations.

Article 12. Upon the termination, revocation or surrender of this Permit, the permitted facilities which are owned, operated, maintained, and connected by Minnesota Power and described in Article 2 of this Permit, shall be removed and the land restored to its original condition within such time as DOE may specify and at the expense of Minnesota Power. If Minnesota Power fails to remove such facilities and/or any portion thereof authorized by this Permit, DOE may direct that such actions be taken for the removal of the facilities or the restoration of the land associated with the facilities at the expense of Minnesota Power. Minnesota Power shall have no claim for damages by reason of such possession, removal or repair. However, if certain facilities authorized herein are useful for other utility operations within the bounds of the United States, DOE may not require that those facilities be removed and the land restored to its original condition upon termination of the international interconnection.

Article 13. Minnesota Power has a continuing obligation to give DOE written notification as soon as practicable of any prospective or actual changes of a substantive nature in the circumstances upon which this Order was based, including but not limited to changes in authorized entity contact information.

Issued in Washington, D.C., on November 15, 2016.



Meghan Conklin  
Deputy Assistant Secretary  
Transmission Permitting and Technical Assistance Division  
Office of Electricity Delivery and Energy Reliability

Table 13. Project Impact on MHEX Transfer Limit

2042 Summer Peak [MISO LRTP2.1]		
Case	MHEX Transfer Limit (MW) <sup>89</sup>	ΔTransfer (MW) above today's limit
Pre-Portfolio	3398	340
Pre-Portfolio with ISA	3503	445 (+105)
Post-Portfolio	3604	546 (+206)

To provide further insight into the Project's impact on north-to-south transfer capability, the loading on the entire MHEX interface, and the loading on each specific MHEX tie line can be seen in Table 14. Project increases the MHEX transfers because it shifts more power on to the Dorsey – Iron Range 500 kV line, reducing the impacts of increasing north-to-south power transfers on the more limiting Riel – Forbes 500 kV transmission line.

Table 14. MHEX Interface Tie-Line Loading

MHEX Interface Tie-Line Loading (MW) at MHEX Thermal Limit						
Case	MHEX	Riel – Forbes 500 kV	Dorsey – Iron Range 500 kV	Richer – Moranville 230 kV	Letellier – Drayton 230 kV	Glenboro – Peace Garden 230 kV
Pre-Portfolio	3397.1	1711.1	1506.0	205.4	-25.3	0
Pre-Portfolio with ISA	3501.4	1714.5	1600.0	207.5	-20.8	0.2
Post - Portfolio	3604.4	1715.5	1561.9	207.5	119.8	-0.3

The results of this MHEX study demonstrate that the Project works together with recently constructed and planned projects and the LRTP Tranche 2.1 Portfolio to increase north-to-south transfer capability into and through northern Minnesota. In combination with the North Flow transfer capability enhancements discussed in Section 3.4.2, these findings further illustrate the regional transfer optimizations and flexibility provided by the Project. These optimizations have their roots in over a decade of transmission planning and studies looking at how regional transmission system expansion can enable complementary generation resource attributes to be leveraged for a more efficient and reliable grid.

#### 3.4.4 Minnesota – Wisconsin Transfers

The Project increases and improves the reliability of transfer capability between Minnesota and Wisconsin. Historically, regional power transfers have typically moved in a west-to-east fashion as power generated in the Dakotas and Manitoba was transferred through northern Minnesota and towards the larger load centers in the Twin Cities, Wisconsin, and Illinois. While this is typically still the case, regional power transfers are becoming more variable and power transfers can occur in the east-to-west direction from Wisconsin into Minnesota.

<sup>89</sup> This analysis considers only the current and historically most limiting constraint. Other constraints may exist that are more limiting for total transfer capability at this level.



EX 4



**Ex Parte Communication Report**

Date: December 12, 2025

To: Public Ex Parte Communication File

Docket No: CN-25-111

Case Name: In the Matter of the Application for a Certificate  
of Need for the Iron Range - St. Louis County -  
Arrowhead 345 kV Transmission Line Project

From: PUC Staff: Emily Johnson

RE: Permissible Ex Parte Communications Pursuant to Minn. Rules, Part 7845.7400.

1. Type of communication: (Oral or Written)

If written, attach the document.

If oral, Date:  
Time:

*NOTE: In both instances, please notify the Maker the communication has been submitted for inclusion in the record.*

2. Maker of the Communication: Daniel Zuckerman, Department of Commerce

3. Recipient of the Communication: Emily Johnson, PUC

4. For communications involving the setting of interim rates or the review of compliance filings, the topic was:

n/a

5. For all other permissible communications that are prohibited for the Commissioners under Minn. Rules, part 7845.7200, the substance of the communication was:

n/a

6. For oral permissible ex parte communications, has a copy of this memo been sent to the assigned Administrative Law Judge?  Yes  No  N/A

12/12/2025

(Name and Date)

December 11, 2025

Kodi Verhalen  
Taft Law  
8<sup>th</sup> Street South  
Minneapolis, Minnesota 55402

RE: **Letter from the Minnesota Department of Commerce, Division of Energy Resources**  
Docket No. E015/CN-25-111

Dear Ms. Verhalen:

The Minnesota Department of Commerce has reviewed the Draft Petition for the combined *Certificate of Need and Route Permit Application for the Iron Range – St. Louis County – Arrowhead 345 kV Transmission Project* and offers the following feedback:

- An application completeness checklist as part of the application itself (not an appendix) for both the Certificate of Need and Route Permit should be included.
- A brief summary of filing on separate page is required.
- Section 1.2
  - o Please simplify this section and include whether or not this project appeared in an Integrated Resource Plan or Biennial Transmission Project.
- Table 3 must be completed.
- Section 2.4.3
  - o This section needs a brief introduction to MISO and MISO's role in project selection, cost recovery, and rates. This also gives precedent for the MISO discussion in section 3.
  - o A citation that refers to the rule should be added to this sentence: "The Commissioner's rules require an applicant to provide the annual revenue requirements to recover the costs of a proposed project."
- Section 3.2.2
  - o We are not disputing the following paragraph, but these are bold claims and may not be indicative of what is occurring in Minnesota:

While the transmission grid remains extremely reliable, in recent years, extreme weather, wildfires, and sabotage have had an increasing impact on the power grid across the United States. As a result, owners and operators of the transmission grid, including the Applicants, are seeking new ways to increase the resilience of the transmission grid to better prevent, withstand, and recover from low probability but high impact events. Resilience efforts include the use of stronger transmission structures, new conductors which minimize icing, enhanced security measures, and other physical and non-physical improvements"
  - o Text should be added to distinguish how these risks (extreme weather, wildfires, sabotage) apply to Minnesota versus the United States.

Date: December 11, 2025  
Docket No: E015/CN-25-111

- Section 3.11
  - o Consider including other social benefits such as a reduction in transmission congestion and therefore reliable electricity and affordable electricity rates for consumers.
- Section 4.2
  - o A definition of "reactive resources" should be added.
- Section 4.3
  - o A map of the facilities in Table 20 should be provided for additional context.
- Section 6.4.1
  - o Provide more detail regarding the service life of the proposed project.

Please do not hesitate to reach out to discuss our comments.

Sincerely,

/s/ Sydnie Lieb, Ph.D.  
Assistant Commissioner, Office of Regulatory Analysis

DZ, SR



**NEED FOR ARROWHEAD-FORBES 345 kV CONNECTION IN CONJUNCTION WITH  
ARROWHEAD-WESTON 345 kV LINE -- 4/9/99**

I performed AC contingency analysis to assess the importance of improving connections between Forbes and Arrowhead if an Arrowhead-Weston line is built

I used the WIREs 2000W/1000S option 3j case as a base case and built a comparison case with an added 345 line to Forbes (and 500/345 Forbes transformer).

**Square Butte DC line in service:**

With the Square Butte DC line in service, results are similar with and without a 345 line to Forbes. The 115 line between Weston and Rocky run is slightly more stressed with the 345 line in place, the T-Corners area and the Southwest are more stressed without the 345 in place.

Arrowhead-Rush City 230 overloads for outage of Forbes-Chicago 500 if the 345 is in place, and does not do so without the 345, but there is evidently a DC reduction scheme in place that would prevent this overload from being realized in practice.

**Square Butte DC line out of service (both bipoles):**

With both Square Butte bipoles out of service, outage of Blackberry-98L Tap 230 leads to contingency overloads of the Arrowhead-Forbes 230 (485 MVA vs. present emergency rating of 352 MVA and proposed new rating of 437 MVA. The new rating, per Dan Carlson's 4/6/99 fax, would apply after line upgrade work (954 ACSR - 100°C). I believe this would be the emergency rating, though this is not specified in the fax.)

Similarly, outage of Arrowhead-Forbes 230 leads to contingency overloads of the Blackberry-98L Tap line (430 MVA vs. normal rating of 375 MVA and emergency rating of 412 MVA).

With both bipoles out of service, a very wide range of regional 345 kV contingencies and a number of more local, lower-voltage contingencies cause overloads or near-overloads of the Arrowhead-Forbes 230. No overloads occur with a new 345 line in place.

Addition of a new Forbes-Arrowhead 345 eliminates essentially all of these problems, although it also appears that this line places slightly more stress on Duluth's 115 kV system.

[Outage of Blackberry-Boswell 230 #1 causes a serious overload of Blackberry-Boswell 230 #2, and outage of #2 causes a near overload of #1. This is true with or without a new Forbes-Arrowhead 345 line.]

**Square Butte DC line with one of two bipoles out of service:**

It appears that even with one bipole out, loss of Blackberry-98L Tap 230 results in overload (relative to present rating) of Arrowhead-Forbes 230. This result is more questionable, however, as I don't know the capabilities of the remaining DC bipole to increase from the initial levels in this case to compensate for loss of the other bipole.

**MP fax of 4/6/99**

As is clear from the bus numbers, Dan Carlson did not use the WIREs model used for AC power flow work. He may have used a the nearly equivalent model used for dynamics work, which was largely assembled by George Sweezy of MP. Using the WIREs model I obtained power flows only a few percent different from the results in Dan's fax. From this work it appears to me that Dan Carlson's fax shows the results of a contingency on the Arrowhead-98L Tap line in addition to a DC outage. This is a very short line (perhaps just a tap from the passing line into the substation) and its outage does not represent the critical contingency. Outage of the ~50-mile Blackberry-98L Tap 230 line has much more severe consequences and is a much better candidate for the critical contingency.

Ultimately, of course, MP must do this analysis and find out what the problems are. Nonetheless, this initial look does indicate that, at 2000W/1000S transfer levels, with the DC line out of service:

The existing rating of Arrowhead-Forbes 230 is low enough that it is almost exceeded with all lines (other than Square Butte DC) in service;

This rating is exceeded if any of a large number of additional line outages occurs;

Outage of Blackberry-98L Tap 230 (with DC line out) leads to loading of Arrowhead-Forbes 230 well in excess of 437 MVA—the proposed rating after work to increase rating;

Outage of Arrowhead-Forbes 230 probably overloads Blackberry-98L Tap 230.

A new 345 kV connection eliminates most or all of these overloads;

If it is appropriate to consider contingencies that include line outage in addition to outage of the DC line, the analysis should consider critical contingencies. For the 2000W/1000S transfer conditions, outage of Blackberry-98L Tap 230 is likely to be a critical contingency, and in any case will almost certainly be a more significant contingency than the Arrowhead-98L Tap outage modeled in the MP fax.

EX 6  
 WIKIPEDIA 25

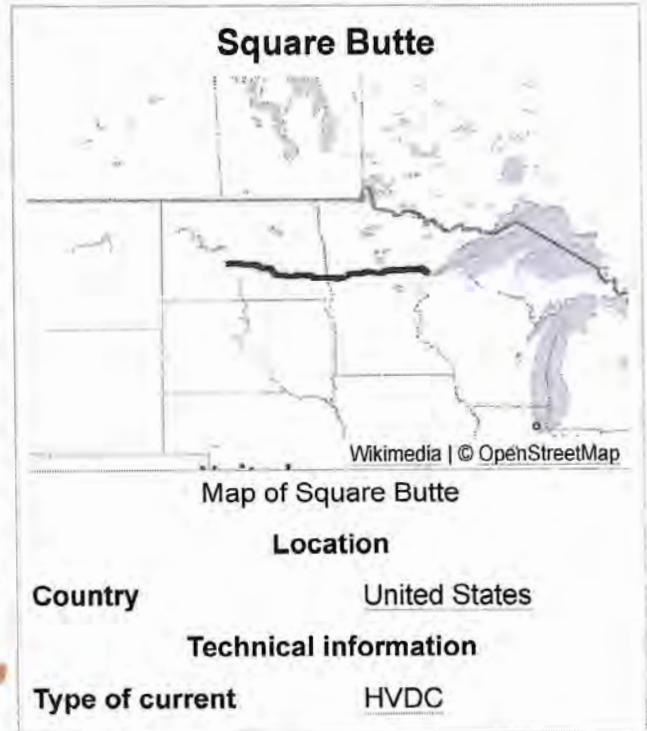
25 years of the free encyclopedia

# Square Butte (transmission line)

EXHIBIT

#6

**Square Butte** is the designation of a high-voltage direct current transmission line in the United States between the Milton R. Young Power Plant near Center, North Dakota at and the Arrowhead converter station near Adolph (a neighborhood of the city of Hermantown near the city of Duluth, Minnesota) at . It was built by Minnkota Power Cooperative and Minnesota Power and went in service in 1977. In 2009, an agreement was executed between the two companies whereby Minnkota gets the rights to all the power currently transmitted over the line (and which is now carried over a newly built 345kV transmission line) while Minnesota Power takes full ownership of the line to transmit power from new sources in the Center area.



Square Butte can transfer up to 500 megawatts at a symmetrical voltage of 250 kV. The whole line is implemented as overhead line on steel lattice towers, with a single conductor per HVDC pole (i.e. a total of two for the HDVC bipole), with a length of 449 miles (749 kilometers). The line crosses the Missouri River north of Price between and in a 718 metres long span. As is the case for modern HVDC-systems thyristor static inverters are used.

## Crossing another HVDC line

Southeast of Wing, North Dakota, at 47°02′48″N 100°05′49″W Square Butte crosses CU, another HVDC powerline. This is the only crossing point of two HVDC overhead powerlines in the Western hemisphere.

## Electrode line

The ground return electrode line starting at Adolph Static Inverter Plant is installed on portal pylons of the three phase AC-powerline from Adolph Static Inverter Plant to Marble Substation. It ends at 46°55′29″N 92°41′50″W. The electrode line starting at Adolph Static Inverter Plant consists of two underground 15 kV cables, each using aluminum conductors with a cross section of 380 mm<sup>2</sup>.

## External links

---

- ABB (2005). Upgrade of control system for CU and Square Butte HVDC projects (<https://archive.today/20070222053933/http://www.abb.com/global/abbzh/abbzh251.nsf!OpenDatabase&db=/global/gad/gad02181.nsf&v=17EA&e=us&m=100A&c=C1256D71001E0037C1256C5C00253B7F>). Retrieved March 27, 2005.
- THE SQUARE BUTTE HVDC SCHEME (<https://web.archive.org/web/20051115122606/http://www.transmission.bpa.gov/cigresc14/Compendium/SQUARE.htm>)
- THE SQUARE BUTTE HVDC SCHEME – Geographic map (<https://web.archive.org/web/20051115122606/http://www.transmission.bpa.gov/cigresc14/Compendium/Square%20Pictures.pdf>)

47°4′18″N 101°11′45″W﻿ / ﻿46°46′25″N 92°17′39″W﻿ / 47°5′30″N 100°56′28″W﻿ / 47°5′30″N 100°55′54″W



Two HVDC lines cross. Square Butte is the line of towers on the left. The CU tower line is on the right, with each of its two conductors formed of two sub-conductors in a horizontal configuration.

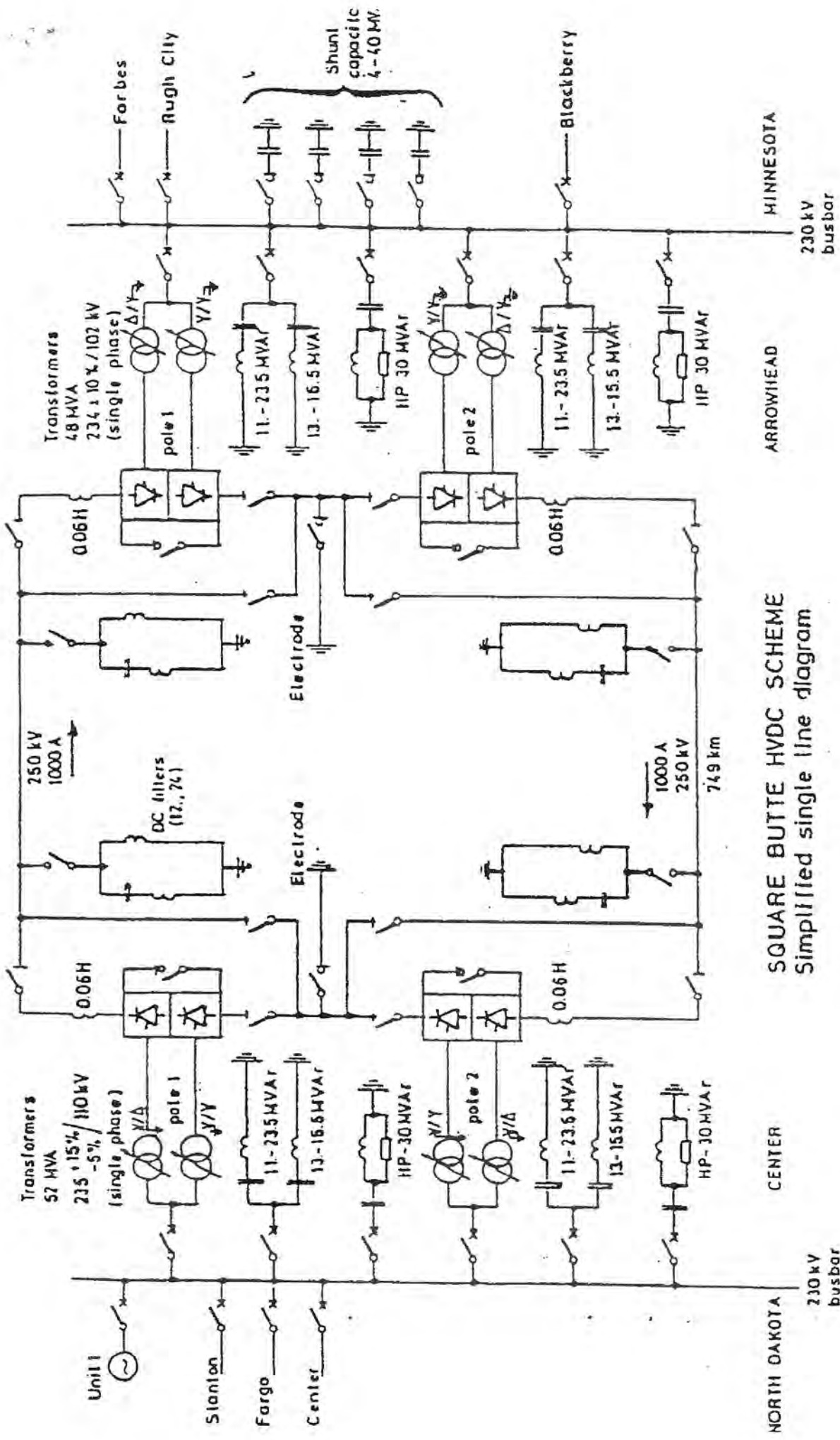
---

Retrieved from "[https://en.wikipedia.org/w/index.php?title=Square\\_Butte\\_\(transmission\\_line\)&oldid=1303510023](https://en.wikipedia.org/w/index.php?title=Square_Butte_(transmission_line)&oldid=1303510023)"

# THE SQUARE BUTTE HVDC SCHEME

Geographic map





SQUARE BUTTE HVDC SCHEME  
Simplified single line diagram

MINNESOTA

230 kV busbar

ARROWHEAD

CENTER

NORTH DAKOTA

230 kV busbar

749 km

1000 A

250 kV

DC filters (12, 74)

Electrode

Electrode

0.06 H

0.06 H

250 kV

1000 A

0.06 H

0.06 H

11-23.5 MVAR

13-15.5 MVAR

HP-30 MVAR

pole 1

pole 2

Transformers

57 MVA

235/15%/-5%/110 kV

(single phase)

Y/A

Y/Y

Stanton

Fargo

Center

Unit 1

11-23.5 MVAR

13-15.5 MVAR

HP-30 MVAR

pole 1

pole 2

Transformers

48 MVA

234/10%/102 kV

(single phase)

Y/Y

Y/Y

Forbes

Rough City

Shunt capacitive

4-40 MW

Blackberry

230 kV busbar

The Wayback Machine - <https://web.archive.org/web/20051115122807/http://www.transmission.bpa.gov:8...>

scheme

**THE SQUARE BUTTE HVDC SCHEME**

**Between** :            Center, North Dakota and Arrowhead (Duluth), Minnesota.

**Power Co** :            Minnesota Power & Light Co. (MP & L) Duluth - Minnesota.  
Minnesota Power Cooperative (MPC) Grand Forks - North Dakota.

**Manufacturer** :        G.E. , USA.

**Commissioned** :        4th of May 1977.

**Main Purpose** :        Base load, bulk power transmission from Center to Arrowhead ;  
reversal transmission is possible. Reinforcement of the AC system in  
North Dakota.

**Main Data** :            Bipole, 500 MW at  $\pm 250$  kV DC and 1000 A/pole

Overload capacity :

1100 A continuously  
1250 A for 100 sec.  
1400 A for 10 sec.  
1800 A for 1 sec.

**AC Networks** :

At both terminals, single phase converter transformer units are used.

+ 15  
Center : 52 MVA, 235 kV    %/110 kV  
- 5  
Connection to the 230 kV AC system  
Short circuit : min. 3000 MVA.

+ 10  
Arrowhead : 48 MVA, 234    %/102 kV  
- 10  
Connection to the 230 kV AC system  
Short circuit : min. 2500 MVA.

**HVDC System** : Overhead lines : 749 km

Line towers : Self supporting lattice aluminium structure ; guyed towers are used in bogs.

Conductors : 1 x 1439 mm<sup>2</sup> ACSR/pole.

Shieldings : 1 x 70 mm<sup>2</sup> steel wire.

Insulator leakage : 2.72 cm/kV (of 250kV)

**Electrodes** : **At Center** designed as circular trench, containing electrodes surrounded by coke ;  
resistance = 0.03 ohm.

Electrode lines :

2 x 380 mm<sup>2</sup> Al, 15 kV underground cable

length = 10 km.

R = 0.3 ohm.

**At Arrowhead** designed by using 800 prepackaged vertical anodes.  
R = 0.3 ohm.

Electrode lines :

1 x 483 mm<sup>2</sup> ACSR,

length = 40 km

R = 2.5 ohm

On-line metallic return switching is possible.

**DC Filters** : are double tuned to the 12th and 24th harmonic.

**HVDC Valves** : the thyristor valves are housed indoor, and they are designed as "Quadruple" valves. Three quadruple valves form a 12-pulse converter unit.

One valve has 12 modules, each with 12 thyristors in series connection, giving the total of 144 thyristors in series connection/valve arm and none in parallel. This makes 576 thyristors in one quadruple valve or 1728 thyristors in one 12-pulse converter unit for 250 kV DC and 1000 A.

The valve structure is air insulated and air cooled.

The smoothing reactor is placed on the high voltage side and is designed for 250 kV DC, 1000 A and 0.06 Henry.

**A.C. Filters :**

Harmonic filters are provided equal designed at each terminal.

Center = Arrowhead : Two 11.+13. harm. filters, each 39 MVar with :

<b>Q</b>	<b>Harm.</b>	<b>MVar</b>	<b>C = <math>\mu</math>F</b>
12.5	11	23.5	-1.16
12.5	13	15.5	0.77

Two HP filters, each 30 MVar with :

C = 1.5  $\mu$ F ; L = 9 mH ; R = 166 ohm

**References :**

Electra N° 63 (1979)

"Harmonic filter and reactive compensation for HVDC"  
A general survey by SC14-WG03.

**System correspondent :**

Mr Lynn Crane  
Minnesota Power  
30 West Superior Street  
DULUTH  
Minnesota 55802  
USA

Telex :  
Telephone : + 1 218 722 2641  
Telefax :

Saved from <http://web.archive.org/web/20070222053933/http://www.abb.com/cawp/ga>

no other snapshots from this ur

Redirected from <http://web.archive.org/web/20070927213214/http://www.abb.com/global/a>

no other snapshots from this ur

Via <http://www.abb.com/cawp/gad02181/c1256d71001e0037c1256c5c00253b7>

history ←prior next→

Original <http://www.abb.com/global/abbzh/abbzh251.nsf/OpenDatabase&db=/globa>

history ←prior next→

All snapshots from host [archive.org](http://archive.org)  
from host [www.abb.com](http://www.abb.com)

Webpage

Screenshot

share

Sitemap

Login



A  
A

- Home
- About ABB
- Products & services
- News center
- Careers
- Investor relations
- Offerings A-Z
- ABB Product Guide
- Industries and utilities
- Service Guide
- Contact Directory

## Upgrade of control system for CU and Square Butte HVDC

HVDC > HVDC References > North America > **CU and Square Butte upgrades**

**Projects upgrades the existing CU and Square Butte HVDC links, built in 1977-78, in North Dakota :**

ABB has competed an upgrade of the control systems for the Square Butte HVDC Scheme and the CU HVDC Scheme in North Dakota and Minnesota in USA.

New MACH 2™ HVDC control systems has been installed to replace the old analogue control systems, on the CU HVDC Project for its stability over long distances and low environmental impact.



Coal Creek substation in North Dakota, part of CU HVDC system.

**CU HVDC System**  
Great River Energy's CU HVDC transmission system between Center and Square Butte was built and commissioned in 1977-78.

The installation and commissioning of the new control equipment was performed in 11 days for pole 1 and for a project of this complexity. During these periods the other pole remained in full operation and was not short, 1½ day, bipolar outage was needed. The bipole was back in full operation on April 17 2004. This was made possible by the thorough factory testing of the MACH 2 equipment and by the dedication of the project team.

"This astonishing achievement shows what can be performed when a customer like Great River Energy and ABB work together based HVDC control system MACH 2 together with the dedication and excellence of a joint workforce made up of ABB Transmission Engineering & Services, Great River Energy and ABB."

**Square Butte HVDC Scheme**  
The Square Butte HVDC Scheme was originally built in 1977-78. The link goes between Center and Square Butte.

Center HVDC Station, North Dakota

The Center HVDC Station, North Dakota, part of the Square Butte HVDC Scheme, with a transmission capacity of 500 MW, was built as a reinforcement of the existing HVDC system.

The Square Butte control upgrade was coordinated with a total shutdown of the generator unit feeding the be performed during a bipolar shutdown. The generator outage started on September 4, 2004 and after ar tests were finished and the HVDC bipole was back in full operation on October 18, 2004.

"The success of this project was evident in the excellent performance of the system since commissioning" Power.

- Search

Products & Services only

- Rate this page
- E-mail this page

#### Links

- HVDC control system
- CU HVDC System

Read more on the Square Butte control upgrade in the

- Square Butte Annual Report 2004 (page 10-11 in the pdf)

EX 7



- Not-Public Document – Not For Public Disclosure
- Public Document – Not-Public Data Has Been Excised
- Public Document

Xcel Energy Information Request No. 2  
 Docket No.: E002/CN-22-532 & E002/TL-23-157  
 Response To: Prehn Family and NoCapX 2020  
 Requestor: Carol A. Overland  
 Date Received: March 28, 2025

Question:

When was the King-Eau Claire-Arpin first built and capacity at that time, expressed in MVA? When was it last updated and/or uprated, and what updates and/or uprates were made? What is the current capacity of that line, expressed in MVA?

Response:

Please see Table 1 below.

**Table 1**

King-Eau Claire-Arpin 345kV				
First In Service Date	January 1, 1960			
Original rating (MVA)	SN (MVA)	SE(MVA)	WN(MVA)	WE(MVA)
	1188.5	1188.5	1195.1	1195.1
Date of last uprate	N/A			
Description of upgrade	N/A			
Current rating (MVA)	SN (MVA)	SE(MVA)	WN(MVA)	WE(MVA)
	1191.5	1191.5	1195.1	1195.1

Preparer: Max McFee  
 Title: Sr, Transmission Product Modeling  
 Department: Integrated Transmission Planning  
 Telephone: 612-330-6417  
 Date: April 7, 2025

2/8

- Not-Public Document – Not For Public Disclosure
- Public Document – Not-Public Data Has Been Excised
- Public Document

Xcel Energy Information Request No. 3  
 Docket No.: E002/CN-22-532 & E002/TL-23-157  
 Response To: Prehn Family and NoCapX 2020  
 Requestor: Carol A. Overland  
 Date Received: March 28, 2025

Question:  
 When was the Prairie Island-Byron-Adams line first built and capacity at that time, expressed in MVA? When was it last updated and/or uprated, and what updates and/or uprates were made? What is the current capacity of that line, expressed in MVA?

Response:  
 Please see Table 1 below.

Table 1

	Prairie Island-Byron-Adams 345 kV			
First In Service Date	January 2, 1970			
Original rating (MVA)	SN (MVA)	SE(MVA)	WN(MVA)	WE(MVA)
	956.1	1192.1	1195.1	1195.1
Date of last uprate	N/A			
Description of upgrade	N/A			
Current rating (MVA)	SN (MVA)	SE(MVA)	WN(MVA)	WE(MVA)
	956.1	1192.1	1195.1	1195.1

Preparer: Max McFee  
 Title: Sr, Transmission Product  
 Department: Integrated Transmission  
 Telephone: 612-330-6417  
 Date: April 7, 2025

1 PUBLIC INFORMATION AND SCOPING MEETINGS

2  
3 Docket Numbers E015/CN-25-111; E015/TL-25-112

4  
5 BEFORE THE COURT OF ADMINISTRATIVE HEARINGS  
6 FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION

7  
8 In the Matter of the Application of  
9 Minnesota Power and American Transmission Company,  
10 LLC for a Certificate of Need and Route Permit for  
11 the Iron Range - St. Louis County - Arrowhead 345 kV  
12 Transmission Project.

13  
14  
15 Taken at Downtown Fair Center  
16 107 West 7th Avenue  
17 Floodwood, MN 55736

18 April 7, 2026  
19 12:00 P.M.

20  
21  
22  
23  
24 REPORTER: Jonna Schrupp, Stenographic Court Reporter

1	PRESENTATIONS :	PAGE
2		
3	Ms. Maxon	3
4	Mr. Janke	6
5	Mr. Winter	8
6	Mr. Janke	15
7	Ms. Johnson	21
8		
9	SPEAKERS :	
10		
11	Mr. Kramer	29
12	Mr. Johnston	32
13	Ms. Overland	35

14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

WHEREUPON, the following proceedings  
were duly had and entered of record, to wit:

1 MS. SAARAH MAXON: Welcome everybody.  
2 Thank you for joining us today. This is the Public  
3 Information and Scoping Meeting for the proposed  
4 Iron Range, St. Louis County, Arrowhead 345 kilovolt  
5 transmission line project.

6 The in-person meetings will be held  
7 today, there was one held yesterday, at three  
8 locations along the proposed path of the  
9 transmission line.

10 Additionally, we will be holding a  
11 virtual meeting this Thursday on April 9th. Each  
12 meeting will cover the same topics and present  
13 exactly the same materials.

14 So I'd like to start out with just a  
15 quick agenda for the meeting. My name is Saarah  
16 Maxon. I'm an analyst at the Minnesota Public  
17 Utilities Commission.

18 I'll be giving just a brief introduction  
19 before passing off the microphone to the Applicants  
20 to provide a description of the proposed project.  
21 After they wrap up they're going to pass the mike  
22 back to my colleague here at the Public Utilities  
23 Commission, Emily Johnson, who will continue permit  
24 application review process and then we will open up  
25 the floor to comments and questions.

1           So before we really get started, I'd just  
2 like to cover some meeting ground rules. We ask  
3 that you please be respectful of others, including  
4 presenters and commenters. We want to make sure  
5 that we can hear from everybody who wants to comment  
6 today.

7           Additionally, when we get to the comment  
8 portion we ask that you speak one person at a time  
9 and don't speak over each other. This is really  
10 important because we have a court reporter here who  
11 is recording comments. It's difficult for her to  
12 get an accurate record if people are talking over  
13 each other, and we do need your comments to help the  
14 Commission make informed decisions.

15           So I'd like to talk about why we're here  
16 today. We are not for or against the proposed  
17 project. We are here to receive public input and  
18 compile a record for the Commission's permit  
19 decision.

20           You can participate by providing comments  
21 or you can ask questions of State staff about the  
22 permitting review process or you can ask the  
23 Applicants questions about the project. Your  
24 comments will help the Commission make an informed  
25 decision and could possibly influence permit

1 conditions, but the commissioners want to hear from  
2 you. They do read through your comments and they  
3 care about how the local community feels.

4 I'd also like to provide a brief overview  
5 of what we do at the Public Utilities Commission.  
6 We regulate electric, natural gas and landline  
7 utilities. We also issue site and route permits for  
8 large electrical facilities. There are five  
9 commissioners and they are appointed by the governor  
10 and confirmed by the senate, and these are the  
11 individuals who ultimately decide on the permit  
12 issue.

13 Today we are joined by the Chair of the  
14 Commission and she is here, Terry Sieben -- sorry,  
15 it sounds like she's not here yet, but she'll here  
16 soon. But she'll be here just to listen and learn  
17 along with everybody else.

18 And then moving onto my next slide.

19 The proposed project is for a 345  
20 kilovolt transmission line, and it will require two  
21 approvals from the Commission, a certified of need  
22 and a route permit.

23 Both the certificate of need and the  
24 route permit will involve environmental review.  
25 Under the certificate of need proceeding our staff

1 at the Public Utilities Commission will prepare an  
2 environmental report.

3 Separately the Applicants have already  
4 prepared an environmental assessment and this was  
5 included in their application for the proposed  
6 project. You can find a copy of this on the  
7 Commission's website or follow up with me if you  
8 have any questions on where to find that.

9 This concludes my portion of the  
10 presentation. Again, my colleague Emily will be  
11 back here in a few to discuss the process in more  
12 depth, but for now I'll hand things off to the  
13 Applicant to continue on. Thank you.

14 MR. DREW JANKE: Thank you, Saarah. Good  
15 afternoon, everyone.

16 My name is Drew Janke. I am an  
17 environmental compliance specialist with Minnesota  
18 Power. I'm here to give an overview of the ISA  
19 transmission line project.

20 So I'll start with a high level overview  
21 of Minnesota Power. Here in the figure on the table  
22 you can see our service area, which spans a good  
23 majority of the northeastern portion of the state.

24 Currently we have just over 1,600  
25 megawatts of electric generation capacity, and with

1 that about 8,700 miles of existing transmission and  
2 distribution lines.

3 We have met or exceeded the state energy  
4 goals for the last 16 years, and we were the first  
5 utility in the state to deliver 50 percent renewable  
6 energy generation.

7 In total we have about 150,000 customers,  
8 including some of the nations largest industrial  
9 customers as well as 14 municipalities.

10 For this project, we are co-applicants  
11 with American Transmission Company, or ATC, and they  
12 are a utility company headquartered in Wisconsin.  
13 So they will have a small ownership stake in the  
14 project.

15 ATC is essentially a utility for  
16 utilities, so they focus primarily of the  
17 transmission of electricity rather than the  
18 generation and distribution that Minnesota Power  
19 also covers.

20 Here we've got just a high level overview  
21 figure for the ISA transmission line project. In  
22 the far northwestern and we have the Iron Range  
23 substation and then on the southeastern end are the  
24 St. Louis County substations and then the adjacent  
25 Arrowhead substation.

1           The project itself is approximately 67  
2 miles of double circuit capable 345 kilovolt  
3 overhead transmission line running between the  
4 relevant substations. And I'll pass the mike off to  
5 Christian.

6           MR. CHRISTIAN WINTER: I think I'll stand  
7 up so I can see the screen. I'm also not as tall as  
8 Drew so you can see me better.

9           My name is Christian Winter. I'm the  
10 manager of regional transmission planning for  
11 Minnesota Power, and I'm going to give some  
12 background on the need for the project and a couple  
13 of points related to that that we want to clarify  
14 for today.

15           So maybe you saw in one of our open  
16 houses last year, or in the boards we have this  
17 year, this map before. But the project is part of a  
18 portfolio of transmission projects, a regional  
19 portfolio, across a large area of the upper midwest  
20 here, encompassing about eight states that was  
21 developed by our regions grid operator, which is  
22 called MISO or the Midcontinent Independent System  
23 Operator.

24           And MISO is responsible for coordinating  
25 the transmission planning across this region to make

1 sure that we have a reliable regional system and  
2 utilities can lean on each other as we need to, and  
3 that system operates efficiently and cost  
4 effectively as we head into the future in all the  
5 ways that it's going to be used.

6 This is an effort MISO began a number of  
7 years ago, back in 2020, and it's kind of built on  
8 studies that occurred even before that.

9 But they developed this in two phases so  
10 far, Tranches as they call it. So back in 2022 you  
11 kind of see the gray lines on there are part of the  
12 Tranche 1 portfolio that was approved by MISO, and  
13 then Tranche 2, which includes the project, which is  
14 outlined in the blue box up there, is the second of  
15 that -- that second phase of what MISO is doing  
16 there.

17 You know, the way I like to characterize  
18 this is, this reliability period that MISO has,  
19 they're looking at not the needs of tomorrow but the  
20 needs of several tomorrows, 15, 20 years down the  
21 line, how is the way electricity is being used and  
22 produced changing, and what is the transmission  
23 system we need to make sure it's reliable in those  
24 times. And if you look at the transmission system  
25 we use today, largely it was built in the 50s, 60s,

1 and 70s, kind of our local highway system. The way  
2 that we use that transmission system is a lot  
3 different than it was 70, 80 years ago.

4 And so this portfolio, these two Tranches  
5 of this portfolio is kind of analogous to the way  
6 we're building the highway of the power grid. We  
7 need a larger, higher capacity, more flexible grid,  
8 to facilitate a lot of that power flow across the  
9 region, again, as things have changed significantly  
10 since the power system we use today was developed.

11 So MP and ATC, as the transmission  
12 owners, on either end of this project, or at the end  
13 points of this project, have an obligation to  
14 deliver it. MISO developed the project and  
15 justified it and they essentially handed it off to  
16 us to deliver the project. So that's why we're here  
17 today. Looking to move this project forward.

18 One last point on this slide, you know,  
19 MISO is building a regional plan and these regional  
20 plan efforts have been going on for a long time.  
21 We'll talk about this a little bit more in a couple  
22 minutes, but this is not -- nothing in this  
23 portfolio individual project is intended to address  
24 the specific needs of any individual customer or  
25 generator. This is about a regional grid that

1 supports the needs of multiple utilities across  
2 multiple states as we head on into the future.

3 So if we could go to the next slide.

4 We cover some of the needs in detail in  
5 the application. So this is volume 1 in front of me  
6 and that's volume 2 in front of Drew, and you don't  
7 have to read the whole thing. You know, the needs  
8 portion is that much of it (indicating).

9 But the needs identified by MISO,  
10 enhancing grid reliability, is operating as  
11 conditions become more variable, increasing the  
12 efficiency of the grid as we move power around, and  
13 meeting the growing demand for reliable clean  
14 energy. We cover that in section 3.3 of the  
15 application and all the background on the MISO  
16 plannings parts of it.

17 We also took what MISO did and we built  
18 on that to help understand what does this project  
19 bring as a part of that portfolio, and that's  
20 covered in section in 3.4, 3.5 of the application,  
21 and you see there the way this project helps to  
22 create a more flexible grid for moving power around  
23 in and through Minnesota and Wisconsin.

24 All right. Next slide then.

25 Just a couple more points from me before

1 I hand it back to Drew.

2 One thing we cover in the application is  
3 the 800 MVA limit at the Arrowhead substation. And  
4 MVA is a really engineering word, but that's just  
5 the amount of power that -- there's a limitation on  
6 the amount of power that can flow through the  
7 Arrowhead substation that was established at the  
8 time that project was originally constructed, the  
9 Arrowhead substation transmission line into  
10 Wisconsin back in the early 2000s.

11 It's a regulatory limit and it was  
12 established at the time over concerns about  
13 increasing transfers of coal-fired generation moving  
14 from west to east through Minnesota and into  
15 Wisconsin. We cover some of the history of it in  
16 the application, but a lot has changed, a lot has  
17 changed since 2001. If you just look at Minnesota  
18 Power as an example, you know, back in that time  
19 frame we were probably over 95 percent coal-fired  
20 energy serving our company. And today, as Drew was  
21 mentioning, we are over -- we were the first utility  
22 in Minnesota to serve over 50 percent renewable  
23 energy and we're north of that by a decent amount on  
24 a regular basis today.

25 So we are in a different world than we

1 were in the early 2000s and when we talk about the  
2 MISO planning and what they're trying to do, it  
3 really is trying to increase and eliminate barriers  
4 to moving power around the region, largely  
5 carbon-free power, but all resources. Transmission  
6 doesn't really care.

7 But that's the reality of the world we  
8 live in today, is that a lot of this is about  
9 regional transfer capability, and a lot of that is  
10 about renewables.

11 The removal of that 800 MVA limit, that  
12 regulatory limit, as we have talked about in the  
13 application, is necessary to achieve regional  
14 benefits in the project. And the circumstances  
15 around that have changed significantly since it was  
16 originally established. So we are requesting to  
17 have that removed as part of what we're requesting  
18 in the application here, and it is needed for  
19 regional purposes, not for any sort of local load  
20 serving needs.

21 And that's where we get to my last slide,  
22 my last point here, because we're seeing a lot of --  
23 and if we can flip to the next one, slide -- a lot  
24 of comments in the docket about the data center in  
25 Hermantown, proposed data center in Hermantown. And

1 I just wanted to take the opportunity to clarify  
2 that.

3           You know, we're here today because the  
4 ISA project was developed and approved by MISO for  
5 regional reliability. We covered some of the  
6 background on that, it goes back a number of years.  
7 The project as a concept has been around for even  
8 longer than that.

9           Some of you may remember open house  
10 meetings over a decade ago, where some of us from  
11 Minnesota Power were out here talking about a very  
12 similar transmission line at that time. The need  
13 didn't ultimately materialize back then but it has  
14 today, as an outcome of the MISO studies. And this  
15 project, like other projects that we've permitted  
16 recently that the Commission has considered in the  
17 Duluth and Hermantown area was proposed to justify  
18 the support grid reliability, independently of the  
19 needs of any individual customer or data center.

20           So while these projects are going on in a  
21 similar geographic area, if there was no proposed  
22 data center in Hermantown today, we'd still be here  
23 today proposing this ISA project, talking about it  
24 and talking about the regional needs that it has  
25 been developed to meet.

1           There is a separate docket for the  
2 electric service agreement associated with that  
3 Hermantown -- proposed Hermantown data center.  
4 Today's topic of conversation is the transmission  
5 project and all the needs that we've identified --  
6 MISO has identified -- to put that forward, and we  
7 just wanted to clarify that here up front.

8           I think with that I'm going to hand it  
9 back to Drew and he can continue to talk about the  
10 route and the environmental part of it.

11           MR. DREW JANKE: Thank you, Christian.

12           So I'm getting into the route permit  
13 application of the combined application.

14           So we came up with a proposed route,  
15 which you can see up here, and that proposed route  
16 in total is about 92 percent collocated with  
17 existing transmission lines. And collocation  
18 meaning either located adjacent to and running  
19 parallel to that existing line or overtaking and  
20 extending the existing right-of-way by about 20 feet  
21 in this case.

22           So this proposed route, we have it broken  
23 down into three different segments, starting with  
24 segment 1, which is highlighted in orange up here,  
25 starting at the northwest, at the Iron Range

1     substation, running to a point just north of the St.  
2     Louis River here in Floodwood.

3             For segment 1 we have proposed to run the  
4     new ISA line adjacent to an existing 230 kilovolt  
5     transmission line.

6             Segment 2, which is highlighted in blue,  
7     runs from the St. Louis County substation, at the  
8     far southeast here, to that point between the  
9     segment 1 and segment 2 transition, which is the  
10    same location north of the river here in Floodwood.

11            Segment 2 is proposed as overtaking the  
12    existing 230 kilovolt line and stringing both sides  
13    of the double circuit capable ISA structures. So  
14    one side of the new structure or circuit would  
15    continue to operate at that 230 kilovolt while the  
16    other side would operate at the 345 kV that the ISA  
17    project is scoped for.

18            And then segment 3 is about a one and a  
19    half mile segment connecting the St. Louis County  
20    substations and the Arrowhead substation, and that  
21    is proposed as double circuit for the ISA project.

22            Here is a timeline on where we've been  
23    and where we anticipate going here. Last year was  
24    really heavy in the stakeholder engagement piece.  
25    We did host a couple rounds of public open houses

1 last year along our potential route areas, as well  
2 as, you know, engagement with relevant state and  
3 federal agencies that provided valuable routing  
4 feedback.

5 This year, obviously we'll be heavy on  
6 the permitting front, so we're starting that process  
7 out here. This year and over the next few years  
8 will be running with detailed engineering, begin  
9 discussions with landowners to obtain easement  
10 options, as well as that public engagement piece  
11 will continue throughout.

12 Assuming all goes well, construction will  
13 begin in 2029 and aim to have the project in service  
14 by 2032.

15 So as part of the route permit  
16 application we, the Applicants, prepared an  
17 environmental assessment to detail both human and  
18 environmental impacts that the proposed project  
19 would have.

20 So what the environmental assessment does  
21 is identifies the impacts both from a human and  
22 environmental standpoint, and it also identifies  
23 strategies to avoid, minimize, and in certain  
24 instances mitigate those impacts.

25 The environmental assessment itself does

1 not advocate for or against the project. And I'll  
2 note here that a lot of times some of the mitigation  
3 efforts that are identified in that environmental  
4 assessment come out through the eventual route  
5 permit conditions for the project.

6 So continuing on with the environmental  
7 assessment. As I mentioned, we look at a variety of  
8 factors both from the human and environmental  
9 standpoint. Here is a list of the resources and I  
10 guess some sub-resources that were evaluated with  
11 the environmental assessment that was prepared for  
12 the project. I won't go through them line by line  
13 but it gives you a sense of what is included with  
14 that EA.

15 I've got a few slides here just to go  
16 over real high level some of the resources that were  
17 evaluated in the environmental assessment and some  
18 of the impacts that were identified.

19 So looking at aesthetics and recreation,  
20 the one identified impact is these structures will  
21 be quite a bit taller than what the existing 230 kV  
22 structures will be. We do recognize that as an  
23 impact and discuss the mitigation or special permit  
24 conditions that come out due to that.

25 Next slide, please.

1           So a couple more resources here. Looking  
2 at public services of transportation as well as land  
3 based economies. I'll touch specifically here on  
4 the land based economies. So as part of the  
5 permitting process here we prepared an agricultural  
6 impact mitigation plan, which has been reviewed  
7 already initially by the Minnesota Department of  
8 Agriculture. So we recently filed that and we have  
9 copies available here if folks are interested in  
10 reviewing those.

11           Archeological resources and water  
12 resources, we look at these resources pretty closely  
13 with other state and federal agencies. So the  
14 archeological resources currently coordinate with  
15 the state historic preservation office, and then on  
16 the water resources for potential impacts, we  
17 coordinate closely both with the U.S. Army Corps of  
18 Engineering, at the federal level, and then the  
19 Minnesota Department of Natural Resources and the  
20 Minnesota Pollution Control Agency for potential  
21 impacts to water resources.

22           And then the last couple of resources to  
23 highlight here are potential impacts and mitigation  
24 to both wildlife and vegetation.

25           Specifically for vegetation, similar to

1 those land based economies, we prepared a vegetation  
2 management plan that will get reviewed by the  
3 State's inner agency working groups ensuring that  
4 vegetation impacts are both minimized and mitigated  
5 for.

6 I mentioned on the project timeline slide  
7 that 2025 was really heavy on the stakeholder  
8 engagement piece. So we did launch a project  
9 website in May and that's been updated a few times  
10 and will continue to be updated as we progress  
11 through the process here.

12 We did host a couple of rounds of open  
13 houses that hopefully some of you were able to  
14 attend last year.

15 Lots of communication with Tribal Nations  
16 and local government unit, both county boards and  
17 township level boards, and landowners, mostly just  
18 stakeholder feedback, and continue to get plenty of  
19 feedback.

20 Next slide, please.

21 So we don't want that, you know, input  
22 and feedback and coordination to go away, so we'll  
23 still be here. We do have an e-mail hotmail, as  
24 well as a phone number hotline, and as I mentioned  
25 our project website is up and being updated as we go

1 here. So there's all sorts of opportunities to  
2 comment either directly with us or through the  
3 official PUC process. Thank you.

4 MS. EMILY JOHNSON: Good afternoon,  
5 everyone. Can you hear me okay?

6 My name is Emily Johnson. I am the  
7 environmental review manager with the Public  
8 Utilities Commission.

9 We first want to thank you all for taking  
10 time to be here today. Our staff relies on your  
11 input and participation in this process to help  
12 develop a complete record for the decision making  
13 process.

14 Today I'll discuss the State's permitting  
15 process and ways that you can provide that input to  
16 help inform and shape the process for this project.

17 When the Commission decides on a permit  
18 they consider the human and environmental impacts of  
19 the project and ways to reduce those impacts.

20 Impacts can include things like construction noise,  
21 aesthetic impacts from tree clearing or new  
22 infrastructure, wildlife habitat fragmentation and  
23 so on.

24 Mitigation measures to address these  
25 impacts could include things like limiting

1 construction to daylight hours, alternative routing,  
2 tree replacement plans and more.

3           The Commission applies standard and  
4 special permit conditions to address these impacts  
5 and tracks compliance throughout the life of the  
6 project, if it is permitted.

7           You can help by providing input about  
8 local unique characteristics, impacts that you know  
9 of, or ways to reduce those impacts.

10           So the first start of our process is a  
11 sample permit, and it's the same for all  
12 transmission lines, line projects that are proposed.  
13 So it includes standard permit conditions that are  
14 common to all of those projects. That's available  
15 at the entry table there when you came in, there's a  
16 copy of the sample permit that we start with.

17           After the comment period concludes and  
18 we've collected some of your input, we will develop  
19 a draft permit that will include special permit  
20 conditions that are specific to the project being  
21 proposed.

22           It's important to note that a draft  
23 permit does not allow the Applicant to construct the  
24 project, it's just the starting point in the  
25 Commission's decision making process.

1           There will be opportunity to comment on  
2 the draft permit as well, and I'll talk about that  
3 in a little bit.

4           This is just a visual representation of  
5 what I just talked about. So we begin with the  
6 sample permit, same for every transmission line  
7 project that's proposed. We then develop the draft  
8 permit based on public input and it's specific to  
9 the project. And then ultimately -- we have a  
10 comment period in between and then ultimately the  
11 final permit is what the Commission will make its  
12 decision on.

13           So by law applications must include an  
14 environmental assessment that contains information  
15 on the human and environmental impacts and ways to  
16 mitigate those identified impacts.

17           The EA was included in the application as  
18 appendix E. That's available here today, a physical  
19 copy is available. You can also find copies at  
20 local libraries, and if you would like that  
21 information you can just come see me after or  
22 contact me.

23           There's also -- the application is also  
24 available on our Public Utilities Commission website  
25 for the project and the eDockets filing system.

1           We ask that you would provide input if  
2 there are any human or environment impacts or unique  
3 characteristics that you noticed are missing from  
4 the environmental assessment that was filed, and if  
5 there's any mitigation measures that you would like  
6 to see evaluated further.

7           The input we receive on those topics will  
8 help us determine whether we need to prepare an  
9 environmental assessment addendum, and that is  
10 something that we would prepare as Commission staff.

11           Saarah mentioned before that this project  
12 is a combined route permit application and  
13 certificate of need application.

14           CN, certificate of need, proceedings  
15 require our staff to prepare an environmental  
16 report. Environmental reports describe the proposed  
17 project and system alternatives that will still meet  
18 the need of the project.

19           System alternatives can include things  
20 like size, type and timing. Examples of size could  
21 include different voltages or length of a project.  
22 Examples of type could include different structure  
23 types and configurations, alternative routing or  
24 different non-transmission energy facilities.  
25 Timing can mean that the project should be sooner or

1 later or possibly not at all.

2 Next slide.

3 Topics for comment, this is kind of just  
4 a summary of what I just talked about. In this  
5 phase of the process we're really looking at these  
6 three main topics for comment.

7 The first is, Are there any potential  
8 human and environmental impacts, unique  
9 characteristics and mitigation measures, including  
10 route alternatives for the proposed project that  
11 need further development and an EA addendum?

12 The second is, Are there practical  
13 methods to minimize, mitigate, or avoid potential  
14 impacts that the Commission should include as  
15 conditions in a draft permit?

16 And the third is, Are there other ways to  
17 meet the stated need for the project, instead of the  
18 proposed transmission line? If so, what  
19 alternatives to the project should be studied?

20 So what happens next, based on the  
21 information in the record and the input we receive  
22 during the comment period the Commission will make  
23 three preliminary determinations.

24 The first, is an environmental assessment  
25 addendum necessary?

1           Second, What conditions should the  
2 Commission include in the draft permit?

3           And the third, What alternatives to the  
4 project should be included in the scope of  
5 certificate of need environmental report?

6           This slide is just a tentative review  
7 schedule for this project and it highlights the key  
8 milestones in a review process.

9           The rows highlighted in blue represent  
10 opportunities for public comment. So as you can  
11 see, this is not the only time that we accept public  
12 comment in the process.

13           The star represents where we are  
14 currently in the process.

15           The Commission accepted the application  
16 as complete on January 20th, and that officially  
17 started the process.

18           We are holding the information meetings  
19 this week, and the comment period will remain open  
20 through April 23rd.

21           In June or July, and based on public  
22 input, the Commission will issue a draft permit and  
23 also make those determinations we talked about. So  
24 they'll determine whether an addendum is needed and  
25 determine the scope of the environmental report.

1           We expect that a draft permit and  
2 environmental report will be issued in the fall of  
3 2026, along with the EA addendum if it's needed.

4           Public hearings are expected to follow in  
5 the fall, along with that second comment period.

6           After the hearing comment period closes a  
7 public hearing report will also be filed to the  
8 record. So that's all publicly available.

9           The Commission will consider the entire  
10 record before making a decision on both the  
11 certificate of need and route permit, likely in the  
12 fall or winter of 2026.

13           The permit decision will be made in an  
14 open public meeting that you are welcome to attend.

15           So how can you comment? You can provide  
16 verbal comments at today's meeting or any meeting  
17 this week. You can complete and submit a written  
18 comment sheet, we have those available at the front  
19 as well. You can comment online at the link  
20 provided. You can also e-mail me directly and send  
21 me physical mail.

22           I have business cards available at the  
23 front as well, and you're welcome to contact Saarah  
24 or I at any time if you have questions about the  
25 process.

1           And the comment period closes on April  
2 23rd at 4:30 p.m.

3           We can go to the next slide.

4           I'll just cover some commenting etiquette  
5 really quick. We'll welcome one speaker at a time  
6 to the microphone. We ask that you state and spell  
7 your name for the court reporter every time you come  
8 up, so even if you come up twice or three times.

9           Since we have quite a crowd today I'm  
10 going to ask that we limit comments to three minutes  
11 to start. We'll open it back up to come up again  
12 and again. We do have about an hour and a half  
13 left, so we'll do three minutes to start and then  
14 we'll open it up again.

15           And then, I would just like to remind  
16 everyone that this is an opportunity for everyone to  
17 be heard. So I'll try to make sure that we move  
18 through fairly and respectfully, but if someone is  
19 speaking at the mike I really just ask that you wait  
20 until it's your turn to come to the mike to speak.

21           I think we can open it up. We have this  
22 slide back up here so that you can see those topics.

23           I do have a couple people -- four people  
24 signed up to comment first and then we'll open it up  
25 to everyone else.

1 I think first we have Betty Gorbil, did I  
2 say that right?

3 MS. BETTY GORBIL: I don't have any  
4 comment.

5 MS. EMILY JOHNSON: Thank you.

6 Let's see, Pete Kramer. Come on up.  
7 Thank you.

8 MR. PETE KRAMER: My name is Pete Kramer,  
9 P-e-t-e K-r-a-m-e-r.

10 I live at 11167 Benson Road, it's right  
11 where the transmission line comes across the St.  
12 Louis River. And first and foremost, I'm for robust  
13 infrastructure and building for the future, so not  
14 anything against the project, and I recognize the  
15 most economical route is actually parallel to the  
16 existing line on property.

17 And my main ask, and I don't know that  
18 this is the right avenue, is for Minnesota Power or  
19 the American Transmission Company or the Minnesota  
20 PUC to identify for landowners points of contact on  
21 which companies are allowed to interact with  
22 landowners on their behalf or expected.

23 I get two to three texts a week asking to  
24 sell my land. I guarantee that has nothing to do  
25 with the companies with this, it's probably, you

1 know, venture capitalists or somebody trying to  
2 garner land for one reason or another, but it's only  
3 centrally located on that piece of property. So it  
4 tells me it's associated with the transmission line.

5 And I've had a survey company reach out  
6 to me and their contract isn't anything that a  
7 reasonable lawyer would sign and try to negotiate  
8 with them, and now that this is coming up I'm not  
9 even sure who they're dealing with or who they're  
10 interacting with.

11 So those two, along the lines, it's just  
12 more so that landowners along this know who they're  
13 working with and don't get taken advantage. I feel  
14 comfortable where I'm at that I can weed some of  
15 that out, and I'm not signing a contract that  
16 doesn't make sense for everybody involved.

17 I don't want to stifle this, because I  
18 think it's important for what's coming, but it's  
19 just concerning all the people that are touching and  
20 reaching out to me.

21 And then with the existing line, I know I  
22 already have this, there's spraying that happen,  
23 there's things in that happen, but in the last month  
24 I've had a tracked vehicle out there and it was not  
25 communicated to me through any normal process.

1           Normally they reach out and say, hey,  
2 we're going to be out there cleaning trees,  
3 spraying. It's like, yeah, and we interact that  
4 way. The person that was out there, I had no  
5 knowledge of it. So as this ramps up there's going  
6 to be more and more people coming out, and I just  
7 want some -- as a landowner -- some knowledge of who  
8 is going to be on the property. In the same token,  
9 being out in the country, having an unknown person  
10 on the property is not a very nice thing to have.

11           I think sometimes when there's signs on  
12 sides of vehicles and track vehicles it makes a  
13 little bit of sense, but still have some knowledge  
14 of who is supposed to be out there would be  
15 important.

16           I don't know the right avenue, but if we  
17 know who we should be dealing with, we can also --  
18 as landowners we can push aside those people that  
19 are just trying to hit us from the outside.

20           That's all I got.

21           MS. EMILY JOHNSON: Thank you for  
22 bringing that to our attention. I would like to say  
23 that we should circle back after the meeting and  
24 have one of our staff reach out to you that has more  
25 information and can help you with that.

1           I will say for anyone's information, if  
2 the project were permitted we do have -- well, and  
3 since there's already an existing line and easement  
4 already there, we do have a complaint procedures  
5 process through the Public Utilities Commission and  
6 we really encourage you to utilize that process.  
7 And if you'd like more information about that just  
8 come talk to our staff.

9           It pretty much means that any time  
10 throughout a permit's life you can contact us with a  
11 complaint and we will address it.

12           I think that we can move on. Our next  
13 speaker is Robert Johnston. Just state and spell  
14 your name.

15           MR. ROBERT JOHNSTON: Robert Johnston,  
16 R-o-b-e-r-t J-o-h-n-s-t-o-n. I live at 6702 Adams  
17 Road, Floodwood.

18           I'd just like to comment on this two  
19 lines, the 230 line plus the 345. I was told by  
20 somebody from Minnesota Power at one of the earlier  
21 meetings that they could probably accommodate us by  
22 putting both lines on set of poles.

23           We live on a working farm and this line  
24 is going to go through six parcels of land, and I  
25 don't need two separate lines going through, all

1 these structures to deal with, if I can get away  
2 from it.

3 I'm not trying to chase off the property,  
4 I just want to make it more usable. But two lines,  
5 instead of five towers there's going to be 10 or 11  
6 of them and that's just not right.

7 But today I asked about putting them both  
8 on one set of poles and they said, well, who told  
9 you that? Somebody from Minnesota Power at a  
10 meeting here in town. I'd like some clarification  
11 on that. Like I said, that's all I've got.

12 MR. DREW JANKE: So to your question  
13 about stacking on --

14 MR. ROBERT JOHNSTON: Right, both  
15 circuits.

16 MR. DREW JANKE: So in order to do that,  
17 we're looking at much taller towers, is the  
18 restriction, and typically when we getting over 200  
19 feet those structures need to be lighted. So that's  
20 generally why we don't look at stacking, as far as  
21 going with taller towers.

22 MR. ROBERT JOHNSTON: So they have to be  
23 that tall if you double circuit them?

24 MR. DREW JANKE: That's correct.

25 MR. ROBERT JOHNSTON: Funny they didn't

1 tell me that before.

2 MR. DREW JANKE: I'm sorry, I'm not sure  
3 who --

4 MR. ROBERT JOHNSTON: Your people. But  
5 you can see my point about all these structures.  
6 It's a working farm. It's been in our family for 80  
7 some years. I mean, it's not a great deal.

8 MR. CHRISTIAN WINTER: Maybe we can  
9 follow up afterwards too, because it depends on  
10 where you're at along the route as well. And maybe  
11 Drew has looked at it but I'd be willing to look at  
12 it together and just see what transmission line  
13 we're talking about.

14 Like we covered earlier, segment 2 of our  
15 project, where we're collocating the proposed 345 kV  
16 with the existing 230 line --

17 MR. ROBERT JOHNSTON: That's what this  
18 is.

19 MR. CHRISTIAN WINTER: You can generally  
20 do two transmission lines on one set of towers and  
21 keep that within reasonable and structure heights  
22 and all that stuff. If we start to have to put more  
23 than two on a set of towers it gets to have more  
24 engineering and reliability impacts to it.

25 So probably, if we can look at a map

1 afterwards and see where you're located we can have  
2 a follow up conversation.

3 MR. ROBERT JOHNSTON: That's fine. Thank  
4 you.

5 MS. EMILY JOHNSON: Thank you for that.  
6 I would also say that that's the information we're  
7 looking for in this process. So thank you for  
8 bringing that up and if you have alternative routing  
9 options that you would like considered by us, we're  
10 happy to have those in the record and include those,  
11 so I'll talk with you after the meeting too to talk  
12 more about that.

13 I think we've just got one more signed  
14 up, Carol Overland. Thank you.

15 MS. CAROL OVERLAND: Hello. Carol  
16 Overland, as it was yesterday, O-v-e-r-l-a-n-d.

17 So this morning I was having breakfast  
18 with Charlotte Nye, who was one of my cohorts in the  
19 Mesaba project, and I was reminded of the time when  
20 there was a sawmill, it was Valentine's Day 2007,  
21 long time ago, but the chair of the Commission was a  
22 part of a panel that was promoting the Mesaba  
23 project, co-classification project for northern  
24 Minnesota. The problem with that was there's a  
25 thing called ex parte contact, and I know that

1 yesterday Commissioner Tuma was here, and maybe  
2 Commissioner Sieben has arrived, she was going to be  
3 here, and tomorrow we'll have another commissioner.

4           Anyway, I think that there should be a  
5 statement to be clear that people can't be  
6 contacting the commissioners directly. That that's  
7 forbidden. Ex Parte Contact, you just can't have  
8 that. So people need to be aware of that. You  
9 can't be contacting the commissioners directly.

10           So I think it would help at the beginning  
11 of the meeting to make sure that people do know that  
12 and understand it.

13           Anyway, so secondly, Ms. Nye reminded me  
14 about problems with maintenance issues, and I think  
15 this is something that should be covered in the EA  
16 and the ER, how -- and also in the draft permit or  
17 the real permit, how vegetation management will  
18 happen.

19           A problem that occurs is that there is  
20 notice of when they will be there on the property,  
21 but the notice period, like in her case, there was a  
22 notice in April, but then in November she looked out  
23 the window and saw that a big oak tree on her  
24 property had been cut down and really didn't have  
25 any effective notice.

1           It needs to be a narrow window of notice  
2 so that people can be on the alert and can act.  
3 It's pretty hard to deal with a hundred year oak  
4 tree that's been cut down after it's already down.

5           That also applies to application of  
6 pesticides, and there is a section for damages in  
7 the permit, draft permit, 5.3.21, and that's  
8 something that should apply also during  
9 construction, but also during maintenance because  
10 that can be a problem.

11           Also, typically what I found over the  
12 last 30 years, is that when magnetic fields are  
13 modeled there will be a charge that models where the  
14 magnetic fields are, you know, what level those are,  
15 distances from the center line. They're usually  
16 understated, and it's important to have a clear  
17 showing of the expected loading and then the maximum  
18 loading, so you can see what the maximum may be.

19           This is looking at a single circuit and  
20 then later probably a double circuit, and how that  
21 will be loaded, and -- so we need to know what the  
22 magnetic fields will be like at various places from  
23 the center line for all the various amp levels,  
24 that's important.

25           I don't have the page number on that, but

1 the amp loading should be the full --

2 MS. KODI VERHALEN: Kodi Verhalen on  
3 behalf of Minnesota Power, Ms. Overland. The  
4 maximum loading all in appendix M of the  
5 application.

6 MS. CAROL OVERLAND: What are the amps  
7 for that?

8 MS. KODI VERHALEN: Table 28.

9 MS. CAROL OVERLAND: What are the number  
10 of amps?

11 MS. KODI VERHALEN: I'll let Mr. Winter  
12 respond.

13 MR. CHRISTIAN WINTER: Thank you. So we  
14 covered that, like Ms. Verhalen was saying, in the  
15 appendices there are plots, but also in section 6.5  
16 of the application, 6.5.2 particularly for magnetic  
17 fields. We give the anticipated magnetic fields  
18 calculated by magnetic fields through the proposed  
19 project on all the different potential structure  
20 configurations that are being considered, single  
21 circuit, double circuit, 345 and 230.

22 MS. CAROL OVERLAND: Excuse me, does that  
23 mean double circuit operating as a double circuit?

24 MR. CHRISTIAN WINTER: We were operating  
25 at 345 kV and 230 kV, and we give that magnetic

1 field with the maximum current anticipated on the  
2 transmission line, maximum continuous rating, so the  
3 most we could ever put down based on the rating on  
4 the line at table 28.

5 MS. CAROL OVERLAND: And that number is?

6 MR. CHRISTIAN WINTER: For the 345 kV  
7 line it is 3,000 amps, and there are some other  
8 ampacities for the lines that are being paralleled,  
9 but for the project it's 3,000 amps. It's all in  
10 the cable --

11 MS. CAROL OVERLAND: And that is the  
12 maximum, 3,000 amps?

13 MR. CHRISTIAN WINTER: That's the maximum  
14 continuous rating of the line.

15 MS. CAROL OVERLAND: Thank you. That's  
16 it for right now. Thank you.

17 MS. DESIREE MORNINGSTAR: Thank you,  
18 Mrs. Overland, for your comments.

19 MS. CAROL OVERLAND: Ms.

20 MS. DESIREE MORNINGSTAR: Ms. Overland.

21 With respect to your question about  
22 commissioners coming to these meetings. You're  
23 right, Commissioner Tuma was at the Grand Rapids  
24 meeting last night. Chair Sieben arrived just a few  
25 minutes ago, so she's here with us in Floodwood.

1           You are correct, those commissioners  
2 cannot have ex parte communications with individuals  
3 on the record, meaning they cannot talk about the  
4 merits of the open dockets, the proceeding that is  
5 in front of us. So staff is here to collect  
6 information, to build a record, we'll be making  
7 recommendations to the commissioners, and of course,  
8 the five commissioners are going to have the record  
9 in front of them and be making decisions on the  
10 draft permit and final permit stage. They'll be  
11 doing that in open meetings. So they are very aware  
12 of and respectful of those restrictions on ex parte  
13 communications.

14           MS. CAROL OVERLAND: Good.

15           MS. DESIREE MORNINGSTAR: Thank you.

16           MS. EMILY JOHNSON: Okay. I think that's  
17 the end of our speakers who signed up. If anyone  
18 would like to come up we'll just open it up for open  
19 comments now.

20           And if nobody rushes up here we might  
21 take a five minute break and allow you to marinate  
22 on that and decide if you want to come up after.  
23 Why don't we come back at 12:55 or so.

24           (Recess was taken 12:47 till 12:55.)

25           MS. EMILY JOHNSON: I am going to open it

1 back up here more comments. So anyone who is  
2 interested feel free to come on up to the mike.

3 Go ahead, Carol.

4 MS. CAROL OVERLAND: Going back to  
5 magnetic fields, I am looking at the application and  
6 table 19, 20, 21, and 22, and my concern here is  
7 that capacity is at, I believe 3,000 amps, but,  
8 okay, there's 150 foot right-of-way, so 75 feet  
9 probably on each side of the center line. But when  
10 I look at say table 20 in the application, page 51,  
11 and the applications are over there in those big  
12 huge books.

13 This is appendix E, page 60 of 344, 61 of  
14 344, anyway, of the appendix is 51 and 52. So  
15 anyway, the concern is 75 feet on either side, but  
16 we're looking at table 20, which is for segment 1,  
17 we don't have a 75 foot measurement there, we've got  
18 50, and it's 418, 100 is 145.7, and the other side,  
19 50 is 309, 100 is 160.6. If you look at the NIE  
20 excess report, which is cited here, but they  
21 recommend four, I think. It's been a long time. I  
22 went to the appellate court on this back in like  
23 2001 and I can't remember, but it's much, much lower  
24 than it is even at 190 feet away from the center  
25 line.

1           On table 21, we do have a 75 foot segment  
2 category here, and it's 130.1 on side, 48.6 on the  
3 other side. We're not even getting close to single  
4 digit numbers. So that is something that needs to  
5 be addressed.

6           There is an association with leukemia,  
7 there's no foundation, it hasn't been proven yet,  
8 and I don't know that we'll ever get there. But  
9 there is an association with childhood leukemia and  
10 I urge you to look into these studies on that. A  
11 lot of them are really old and that's a problem.  
12 But there are studies showing the association and  
13 that should be included the EA, the ER and I hope  
14 the draft permit is keeping it down, and that's it  
15 for now. Carol Overland, again.

16           MS. EMILY JOHNSON: Thank you for those  
17 comments.

18           Minnesota Power, do you have anything you  
19 want to say to that or are you good?

20           Anybody else?

21           If nobody else wants to come up we just  
22 have some reminders. All of the comments will be  
23 made available to the public via our eDockets filing  
24 web page, you can access that. If you need any help  
25 just come let me know and I will show you how you

1 can access that. That includes the transcripts of  
2 all of the meetings this week, those are all public  
3 available information once they're posted after the  
4 meeting.

5 The Commission does not edit or delete  
6 personal identifying information from submissions,  
7 so just keep that in mind. And the written comment  
8 period closes on April 23rd at 4:30 p.m.

9 If you have any other questions please  
10 reach out to us any time. Grab my card at the  
11 front, or Saarah's card. That's what we're here  
12 for. And thanks again for coming and, yeah, thanks  
13 for your input.

14 (Proceedings adjourned at 1:05 p.m.)  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

1 STATE OF MINNESOTA )

2 COUNTY OF HENNEPIN )

3

4

REPORTER'S CERTIFICATE

5

6

I, Jonna Schrupp, do hereby certify

7

that the above and foregoing transcript,

8

consisting of the preceding 43 pages is a

9

correct transcript of my stenographic notes of

10

the proceedings to the best of my ability.

11

Dated April 12, 2026

12

13

/s/ Jonna Schrupp

JONNA SCHRUPP

14

Stenographic Court Reporter

15

16

17

18

19

20

21

22

23

24

25

<b>A</b>	ago (5) 9:7;10:3;14:10; 35:21;39:25	26:15;37:5;38:5,16; 41:5,10	away (3) 20:22;33:1;41:24	bringing (2) 31:22;35:8
able (1) 20:13	agreement (1) 15:2	applications (2) 23:13;41:11	<b>B</b>	broken (1) 15:22
accept (1) 26:11	agricultural (1) 19:5	applies (2) 22:3;37:5	back (17) 3:22;6:11;9:7,10; 12:1,10,18;14:6,13; 15:9;28:11,22;31:23; 40:23;41:1,4,22	build (1) 40:6
accepted (1) 26:15	Agriculture (1) 19:8	apply (1) 37:8	background (3) 8:12;11:15;14:6	building (3) 10:6,19;29:13
access (2) 42:24;43:1	ahead (1) 41:3	appointed (1) 5:9	barriers (1) 13:3	built (3) 9:7,25;11:17
accommodate (1) 32:21	aim (1) 17:13	approvals (1) 5:21	<b>C</b>	business (1) 27:22
accurate (1) 4:12	alert (1) 37:2	approved (2) 9:12;14:4	based (7) 19:3,4;20:1;23:8; 25:20;26:21;39:3	cable (1) 39:10
achieve (1) 13:13	allow (2) 22:23;40:21	approximately (1) 8:1	basis (1) 12:24	calculated (1) 38:18
across (5) 8:19,25;10:8;11:1; 29:11	allowed (1) 29:21	April (5) 3:11;26:20;28:1; 36:22;43:8	become (1) 11:11	call (1) 9:10
act (1) 37:2	along (8) 3:8;5:17;17:1;27:3, 5;30:11,12;34:10	Archeological (2) 19:11,14	began (1) 9:6	called (2) 8:22;35:25
actually (1) 29:15	alternatives (5) 24:17,19;25:10,19; 26:3	area (4) 6:22;8:19;14:17,21	begin (3) 17:8,13;23:5	came (2) 15:14;22:15
Adams (1) 32:16	American (2) 7:11;29:19	areas (1) 17:1	beginning (1) 36:10	can (48) 4:5,20,21,22;6:6, 22:8;7:8;9:2;12:6; 13:23;15:9,15;21:5, 15,20;22:7;23:19,21; 24:19,25;26:10; 27:15,15,17,19,20; 28:3,21,22;30:14; 31:17,18,25;32:10,12; 33:1;34:5,8,19,25; 35:1;37:2,2,10,18; 42:24;43:1
addendum (5) 24:9;25:11,25; 26:24;27:3	amount (3) 12:5,6,23	Army (1) 19:17	behalf (2) 29:22;38:3	Benson (1) 29:10
Additionally (2) 3:10;4:7	amp (2) 37:23;38:1	around (5) 11:12,22;13:4,15; 14:7	benefits (1) 13:14	better (1) 8:8
address (4) 10:23;21:24;22:4; 32:11	ampacities (1) 39:8	arrived (2) 36:2;39:24	Betty (2) 29:1,3	big (2) 36:23;41:11
addressed (1) 42:5	amps (6) 38:6,10;39:7,9,12; 41:7	Arrowhead (6) 3:4;7:25;12:3,7,9; 16:20	bit (4) 10:21;18:21;23:3; 31:13	blue (3) 9:14;16:6;26:9
adjacent (3) 7:24;15:18;16:4	analogous (1) 10:5	aside (1) 31:18	boards (3) 8:16;20:16,17	books (1) 41:12
adjourned (1) 43:14	analyst (1) 3:16	assessment (12) 6:4;17:17,20,25; 18:4,7,11,17;23:14; 24:4,9;25:24	Both (13) 5:23;16:12;17:17, 21;18:8;19:17,24; 20:4,16;27:10;32:22; 33:7,14	card (2) 43:10,11
advantage (1) 30:13	anticipate (1) 16:23	associated (2) 15:2;30:4	break (1) 40:21	category (1) 42:2
advocate (1) 18:1	anticipated (2) 38:17;39:1	association (3) 42:6,9,12	breakfast (1) 35:17	center (9) 13:24,25;14:19,22;
aesthetic (1) 21:21	appellate (1) 41:22	Assuming (1) 17:12	brief (2) 3:18;5:4	
aesthetics (1) 18:19	appendices (1) 38:15	ATC (3) 7:11,15;10:11	bring (1) 11:19	
afternoon (2) 6:15;21:4	appendix (4) 23:18;38:4;41:13, 14	attend (2) 20:14;27:14		
afterwards (2) 34:9;35:1	Applicant (2) 6:13;22:23	attention (1) 31:22		
Again (7) 6:10;10:9;28:11,12, 14;42:15;43:12	Applicants (4) 3:19;4:23;6:3; 17:16	available (10) 19:9;22:14;23:18, 19,24;27:8,18,22; 42:23;43:3		
against (3) 4:16;18:1;29:14	application (22) 3:24;6:5;11:5,15, 20;12:2,16;13:13,18; 15:13,13;17:16; 23:17,23;24:12,13;	avenue (2) 29:18;31:16		
agencies (2) 17:3;19:13		avoid (2) 17:23;25:13		
Agency (2) 19:20;20:3		aware (2) 36:8;40:11		
agenda (1) 3:15				

<p>15:3;37:15,23;41:9,24  <b>centrally (1)</b>                  30:3  <b>certain (1)</b>                  17:23  <b>certificate (6)</b>                  5:23,25;24:13,14;26:5;27:11  <b>certified (1)</b>                  5:21  <b>Chair (3)</b>                  5:13;35:21;39:24  <b>changed (4)</b>                  10:9;12:16,17;13:15  <b>changing (1)</b>                  9:22  <b>characteristics (3)</b>                  22:8;24:3;25:9  <b>characterize (1)</b>                  9:17  <b>charge (1)</b>                  37:13  <b>Charlotte (1)</b>                  35:18  <b>chase (1)</b>                  33:3  <b>childhood (1)</b>                  42:9  <b>Christian (10)</b>                  8:5,6,9;15:11;34:8,19;38:13,24;39:6,13  <b>circle (1)</b>                  31:23  <b>circuit (11)</b>                  8:2;16:13,14,21;33:23;37:19,20;38:21,21,23,23  <b>circuits (1)</b>                  33:15  <b>circumstances (1)</b>                  13:14  <b>cited (1)</b>                  41:20  <b>clarification (1)</b>                  33:10  <b>clarify (3)</b>                  8:13;14:1;15:7  <b>clean (1)</b>                  11:13  <b>cleaning (1)</b>                  31:2  <b>clear (2)</b>                  36:5;37:16  <b>clearing (1)</b>                  21:21  <b>close (1)</b>                  42:3  <b>closely (2)</b>                  19:12,17  <b>closes (3)</b>                  27:6;28:1;43:8</p>	<p><b>CN (1)</b>                  24:14  <b>coal-fired (2)</b>                  12:13,19  <b>co-applicants (1)</b>                  7:10  <b>co-classification (1)</b>                  35:23  <b>cohorts (1)</b>                  35:18  <b>colleague (2)</b>                  3:22;6:10  <b>collect (1)</b>                  40:5  <b>collected (1)</b>                  22:18  <b>collocated (1)</b>                  15:16  <b>collocating (1)</b>                  34:15  <b>collocation (1)</b>                  15:17  <b>combined (2)</b>                  15:13;24:12  <b>comfortable (1)</b>                  30:14  <b>coming (5)</b>                  30:8,18;31:6;39:22;43:12  <b>comment (22)</b>                  4:5,7;21:2;22:17;23:1,10;25:3,6,22;26:10,12,19;27:5,6,15,18,19;28:1,24;29:4;32:18;43:7  <b>commenters (1)</b>                  4:4  <b>commenting (1)</b>                  28:4  <b>comments (14)</b>                  3:25;4:11,13,20,24;5:2;13:24;27:16;28:10;39:18;40:19;41:1;42:17,22  <b>Commission (24)</b>                  3:17,23;4:14,24;5:5,14,21;6:1;14:16;21:8,17;22:3;23:11,24;24:10;25:14,22;26:2,15,22;27:9;32:5;35:21;43:5  <b>Commissioner (4)</b>                  36:1,2,3;39:23  <b>commissioners (8)</b>                  5:1,9;36:6,9;39:22;40:1,7,8  <b>Commission's (3)</b>                  4:18;6:7;22:25  <b>common (1)</b>                  22:14  <b>communicated (1)</b>                  30:25  <b>communication (1)</b></p>	<p>20:15  <b>communications (2)</b>                  40:2,13  <b>community (1)</b>                  5:3  <b>companies (2)</b>                  29:21,25  <b>Company (5)</b>                  7:11,12;12:20;29:19;30:5  <b>compil (1)</b>                  4:18  <b>complaint (2)</b>                  32:4,11  <b>complete (3)</b>                  21:12;26:16;27:17  <b>compliance (2)</b>                  6:17;22:5  <b>concept (1)</b>                  14:7  <b>concern (2)</b>                  41:6,15  <b>concerning (1)</b>                  30:19  <b>concerns (1)</b>                  12:12  <b>concludes (2)</b>                  6:9;22:17  <b>conditions (9)</b>                  5:1;11:11;18:5,24;22:4,13,20;25:15;26:1  <b>configurations (2)</b>                  24:23;38:20  <b>confirmed (1)</b>                  5:10  <b>connecting (1)</b>                  16:19  <b>consider (2)</b>                  21:18;27:9  <b>considered (3)</b>                  14:16;35:9;38:20  <b>construct (1)</b>                  22:23  <b>constructed (1)</b>                  12:8  <b>construction (4)</b>                  17:12;21:20;22:1;37:9  <b>contact (6)</b>                  23:22;27:23;29:20;32:10;35:25;36:7  <b>contacting (2)</b>                  36:6,9  <b>contains (1)</b>                  23:14  <b>continue (7)</b>                  3:23;6:13;15:9;16:15;17:11;20:10,18  <b>continuing (1)</b>                  18:6  <b>continuous (2)</b>                  39:2,14</p>	<p><b>contract (2)</b>                  30:6,15  <b>Control (1)</b>                  19:20  <b>conversation (2)</b>                  15:4;35:2  <b>coordinate (2)</b>                  19:14,17  <b>coordinating (1)</b>                  8:24  <b>coordination (1)</b>                  20:22  <b>copies (2)</b>                  19:9;23:19  <b>copy (3)</b>                  6:6;22:16;23:19  <b>Corps (1)</b>                  19:17  <b>cost (1)</b>                  9:3  <b>country (1)</b>                  31:9  <b>County (5)</b>                  3:4;7:24;16:7,19;20:16  <b>couple (8)</b>                  8:12;10:21;11:25;16:25;19:1,22;20:12;28:23  <b>course (1)</b>                  40:7  <b>court (3)</b>                  4:10;28:7;41:22  <b>cover (7)</b>                  3:12;4:2;11:4,14;12:2,15;28:4  <b>covered (5)</b>                  11:20;14:5;34:14;36:15;38:14  <b>covers (1)</b>                  7:19  <b>create (1)</b>                  11:22  <b>crowd (1)</b>                  28:9  <b>current (1)</b>                  39:1  <b>Currently (3)</b>                  6:24;19:14;26:14  <b>customer (2)</b>                  10:24;14:19  <b>customers (2)</b>                  7:7,9  <b>cut (2)</b>                  36:24;37:4</p>	<p><b>Day (1)</b>                  35:20  <b>daylight (1)</b>                  22:1  <b>deal (3)</b>                  33:1;34:7;37:3  <b>dealing (2)</b>                  30:9;31:17  <b>decade (1)</b>                  14:10  <b>decent (1)</b>                  12:23  <b>decide (2)</b>                  5:11;40:22  <b>decides (1)</b>                  21:17  <b>decision (7)</b>                  4:19,25;21:12;22:25;23:12;27:10,13  <b>decisions (2)</b>                  4:14;40:9  <b>delete (1)</b>                  43:5  <b>deliver (3)</b>                  7:5;10:14,16  <b>demand (1)</b>                  11:13  <b>Department (2)</b>                  19:7,19  <b>depends (1)</b>                  34:9  <b>depth (1)</b>                  6:12  <b>describe (1)</b>                  24:16  <b>description (1)</b>                  3:20  <b>DESIREE (3)</b>                  39:17,20;40:15  <b>detail (2)</b>                  11:4;17:17  <b>detailed (1)</b>                  17:8  <b>determinations (2)</b>                  25:23;26:23  <b>determine (3)</b>                  24:8;26:24,25  <b>develop (3)</b>                  21:12;22:18;23:7  <b>developed (6)</b>                  8:21;9:9;10:10,14;14:4,25  <b>development (1)</b>                  25:11  <b>different (7)</b>                  10:3;12:25;15:23;24:21,22,24;38:19  <b>difficult (1)</b>                  4:11  <b>digit (1)</b>                  42:4  <b>directly (4)</b>                  21:2;27:20;36:6,9</p>
<b>D</b>				
<p><b>damages (1)</b>                  37:6  <b>data (5)</b>                  13:24,25;14:19,22;15:3</p>				

<p><b>discuss (3)</b> 6:11;18:23;21:14</p> <p><b>discussions (1)</b> 17:9</p> <p><b>distances (1)</b> 37:15</p> <p><b>distribution (2)</b> 7:2,18</p> <p><b>docket (2)</b> 13:24;15:1</p> <p><b>dockets (1)</b> 40:4</p> <p><b>double (8)</b> 8:2;16:13,21;33:23; 37:20;38:21,23,23</p> <p><b>down (7)</b> 9:20;15:23;36:24; 37:4,4;39:3;42:14</p> <p><b>draft (12)</b> 22:19,22;23:2,7; 25:15;26:2,22;27:1; 36:16;37:7;40:10; 42:14</p> <p><b>DREW (13)</b> 6:14,16;8:8;11:6; 12:1,20;15:9,11; 33:12,16,24;34:2,11</p> <p><b>due (1)</b> 18:24</p> <p><b>Duluth (1)</b> 14:17</p> <p><b>duly (1)</b> 2:23</p> <p><b>during (3)</b> 25:22;37:8,9</p>	<p><b>efficiently (1)</b> 9:3</p> <p><b>effort (1)</b> 9:6</p> <p><b>efforts (2)</b> 10:20;18:3</p> <p><b>eight (1)</b> 8:20</p> <p><b>either (4)</b> 10:12;15:18;21:2; 41:15</p> <p><b>electric (3)</b> 5:6;6:25;15:2</p> <p><b>electrical (1)</b> 5:8</p> <p><b>electricity (2)</b> 7:17;9:21</p> <p><b>eliminate (1)</b> 13:3</p> <p><b>else (4)</b> 5:17;28:25;42:20, 21</p> <p><b>e-mail (2)</b> 20:23;27:20</p> <p><b>Emily (10)</b> 3:23;6:10;21:4,6; 29:5;31:21;35:5; 40:16,25;42:16</p> <p><b>encompassing (1)</b> 8:20</p> <p><b>encourage (1)</b> 32:6</p> <p><b>end (4)</b> 7:23;10:12,12; 40:17</p> <p><b>energy (6)</b> 7:3,6;11:14;12:20, 23;24:24</p> <p><b>engagement (4)</b> 16:24;17:2,10;20:8</p> <p><b>engineering (4)</b> 12:4;17:8;19:18; 34:24</p> <p><b>enhancing (1)</b> 11:10</p> <p><b>ensuring (1)</b> 20:3</p> <p><b>entered (1)</b> 2:23</p> <p><b>entire (1)</b> 27:9</p> <p><b>entry (1)</b> 22:15</p> <p><b>environment (1)</b> 24:2</p> <p><b>environmental (28)</b> 5:24;6:2,4,17; 15:10;17:17,18,20,22, 25;18:3,6,8,11,17; 21:7,18;23:14,15; 24:4,9,15,16;25:8,24; 26:5,25;27:2</p> <p><b>ER (2)</b></p>	<p>36:16;42:13</p> <p><b>essentially (2)</b> 7:15;10:15</p> <p><b>established (3)</b> 12:7,12;13:16</p> <p><b>etiquette (1)</b> 28:4</p> <p><b>evaluated (3)</b> 18:10,17;24:6</p> <p><b>even (6)</b> 9:8;14:7;28:8;30:9; 41:24;42:3</p> <p><b>eventual (1)</b> 18:4</p> <p><b>everybody (4)</b> 3:1,4;5:5;17:30;16</p> <p><b>everyone (5)</b> 6:15;21:5;28:16,16, 25</p> <p><b>ex (4)</b> 35:25;36:7;40:2,12</p> <p><b>exactly (1)</b> 3:13</p> <p><b>example (1)</b> 12:18</p> <p><b>Examples (2)</b> 24:20,22</p> <p><b>exceeded (1)</b> 7:3</p> <p><b>excess (1)</b> 41:20</p> <p><b>Excuse (1)</b> 38:22</p> <p><b>existing (11)</b> 7:1;15:17,19,20; 16:4,12;18:21;29:16; 30:21;32:3;34:16</p> <p><b>expect (1)</b> 27:1</p> <p><b>expected (3)</b> 27:4;29:22;37:17</p> <p><b>extending (1)</b> 15:20</p>	<p><b>federal (3)</b> 17:3;19:13,18</p> <p><b>feedback (4)</b> 17:4;20:18,19,22</p> <p><b>feel (2)</b> 30:13;41:2</p> <p><b>feels (1)</b> 5:3</p> <p><b>feet (5)</b> 15:20;33:19;41:8, 15,24</p> <p><b>few (5)</b> 6:11;17:7;18:15; 20:9;39:24</p> <p><b>field (1)</b> 39:1</p> <p><b>fields (7)</b> 37:12,14,22;38:17, 17,18;41:5</p> <p><b>figure (2)</b> 6:21;7:21</p> <p><b>filed (3)</b> 19:8;24:4;27:7</p> <p><b>filing (2)</b> 23:25;42:23</p> <p><b>final (2)</b> 23:11;40:10</p> <p><b>find (3)</b> 6:6,8;23:19</p> <p><b>fine (1)</b> 35:3</p> <p><b>first (9)</b> 7:4;12:21;21:9; 22:10;25:7,24;28:24; 29:1,12</p> <p><b>five (4)</b> 5:8;33:5;40:8,21</p> <p><b>flexible (2)</b> 10:7;11:22</p> <p><b>flip (1)</b> 13:23</p> <p><b>Floodwood (4)</b> 16:2,10;32:17; 39:25</p> <p><b>floor (1)</b> 3:25</p> <p><b>flow (2)</b> 10:8;12:6</p> <p><b>focus (1)</b> 7:16</p> <p><b>folks (1)</b> 19:9</p> <p><b>follow (4)</b> 6:7;27:4;34:9;35:2</p> <p><b>following (1)</b> 2:22</p> <p><b>foot (3)</b> 41:8,17;42:1</p> <p><b>forbidden (1)</b> 36:7</p> <p><b>foremost (1)</b> 29:12</p> <p><b>forward (2)</b></p>	<p>10:17;15:6</p> <p><b>found (1)</b> 37:11</p> <p><b>foundation (1)</b> 42:7</p> <p><b>four (2)</b> 28:23;41:21</p> <p><b>fragmentation (1)</b> 21:22</p> <p><b>frame (1)</b> 12:19</p> <p><b>free (1)</b> 41:2</p> <p><b>front (9)</b> 11:5,6;15:7;17:6; 27:18,23;40:5,9; 43:11</p> <p><b>full (1)</b> 38:1</p> <p><b>Funny (1)</b> 33:25</p> <p><b>further (2)</b> 24:6;25:11</p> <p><b>future (3)</b> 9:4;11:2;29:13</p>
<b>G</b>				
<p><b>E</b></p>	<p><b>EA (6)</b> 18:14;23:17;25:11; 27:3;36:15;42:13</p> <p><b>earlier (2)</b> 32:20;34:14</p> <p><b>early (2)</b> 12:10;13:1</p> <p><b>easement (2)</b> 17:9;32:3</p> <p><b>east (1)</b> 12:14</p> <p><b>economical (1)</b> 29:15</p> <p><b>economies (3)</b> 19:3,4;20:1</p> <p><b>edit (1)</b> 43:5</p> <p><b>eDockets (2)</b> 23:25;42:23</p> <p><b>effective (1)</b> 36:25</p> <p><b>effectively (1)</b> 9:4</p> <p><b>efficiency (1)</b> 11:12</p>	<p><b>F</b></p> <p><b>facilitate (1)</b> 10:8</p> <p><b>facilities (2)</b> 5:8;24:24</p> <p><b>factors (1)</b> 18:8</p> <p><b>fairly (1)</b> 28:18</p> <p><b>fall (3)</b> 27:2,5,12</p> <p><b>family (1)</b> 34:6</p> <p><b>far (4)</b> 7:22;9:10;16:8; 33:20</p> <p><b>farm (2)</b> 32:23;34:6</p>	<p><b>garner (1)</b> 30:2</p> <p><b>gas (1)</b> 5:6</p> <p><b>generally (2)</b> 33:20;34:19</p> <p><b>generation (4)</b> 6:25;7:6,18;12:13</p> <p><b>generator (1)</b> 10:25</p> <p><b>geographic (1)</b> 14:21</p> <p><b>gets (1)</b> 34:23</p> <p><b>gives (1)</b> 18:13</p> <p><b>giving (1)</b> 3:18</p> <p><b>goals (1)</b> 7:4</p> <p><b>goes (2)</b> 14:6;17:12</p> <p><b>Good (5)</b> 6:14,22;21:4;40:14; 42:19</p> <p><b>Gorbil (2)</b> 29:1,3</p> <p><b>government (1)</b> 20:16</p> <p><b>governor (1)</b> 5:9</p> <p><b>Grab (1)</b> 43:10</p> <p><b>Grand (1)</b> 39:23</p>	

<p><b>gray (1)</b> 9:11</p> <p><b>great (1)</b> 34:7</p> <p><b>grid (8)</b> 8:21;10:6,7,25; 11:10,12,22;14:18</p> <p><b>ground (1)</b> 4:2</p> <p><b>groups (1)</b> 20:3</p> <p><b>growing (1)</b> 11:13</p> <p><b>guarantee (1)</b> 29:24</p> <p><b>guess (1)</b> 18:10</p>	<p>13:25,25;14:17,22; 15:3,3</p> <p><b>hey (1)</b> 31:1</p> <p><b>high (3)</b> 6:20;7:20;18:16</p> <p><b>higher (1)</b> 10:7</p> <p><b>highlight (1)</b> 19:23</p> <p><b>highlighted (3)</b> 15:24;16:6;26:9</p> <p><b>highlights (1)</b> 26:7</p> <p><b>highway (2)</b> 10:1,6</p> <p><b>historic (1)</b> 19:15</p> <p><b>history (1)</b> 12:15</p> <p><b>hit (1)</b> 31:19</p> <p><b>holding (2)</b> 3:10;26:18</p> <p><b>hope (1)</b> 42:13</p> <p><b>hopefully (1)</b> 20:13</p> <p><b>host (2)</b> 16:25;20:12</p> <p><b>hotline (1)</b> 20:24</p> <p><b>hotmail (1)</b> 20:23</p> <p><b>hour (1)</b> 28:12</p> <p><b>hours (1)</b> 22:1</p> <p><b>house (1)</b> 14:9</p> <p><b>houses (3)</b> 8:16;16:25;20:13</p> <p><b>huge (1)</b> 41:12</p> <p><b>human (7)</b> 17:17,21;18:8; 21:18;23:15;24:2; 25:8</p> <p><b>hundred (1)</b> 37:3</p>	<p>18:20,23;19:6</p> <p><b>impacts (22)</b> 17:18,21,24;18:18; 19:16,21,23;20:4; 21:18,19,20,21,25; 22:4,8,9;23:15,16; 24:2;25:8,14;34:24</p> <p><b>important (6)</b> 4:10;22:22;30:18; 31:15;37:16,24</p> <p><b>include (10)</b> 21:20,25;22:19; 23:13;24:19,21,22; 25:14;26:2;35:10</p> <p><b>included (5)</b> 6:5;18:13;23:17; 26:4;42:13</p> <p><b>includes (3)</b> 9:13;22:13;43:1</p> <p><b>including (3)</b> 4:3;7:8;25:9</p> <p><b>increase (1)</b> 13:3</p> <p><b>increasing (2)</b> 11:11;12:13</p> <p><b>Independent (1)</b> 8:22</p> <p><b>independently (1)</b> 14:18</p> <p><b>indicating (1)</b> 11:8</p> <p><b>individual (3)</b> 10:23,24;14:19</p> <p><b>individuals (2)</b> 5:11;40:2</p> <p><b>industrial (1)</b> 7:8</p> <p><b>influence (1)</b> 4:25</p> <p><b>inform (1)</b> 21:16</p> <p><b>Information (12)</b> 3:3;23:14,21;25:21; 26:18;31:25;32:1,7; 35:6;40:6;43:3,6</p> <p><b>informed (2)</b> 4:14,24</p> <p><b>infrastructure (2)</b> 21:22;29:13</p> <p><b>initially (1)</b> 19:7</p> <p><b>inner (1)</b> 20:3</p> <p><b>in-person (1)</b> 3:6</p> <p><b>input (12)</b> 4:17;20:21;21:11, 15;22:7,18;23:8;24:1, 7;25:21;26:22;43:13</p> <p><b>instances (1)</b> 17:24</p> <p><b>instead (2)</b> 25:17;33:5</p>	<p><b>intended (1)</b> 10:23</p> <p><b>interact (2)</b> 29:21;31:3</p> <p><b>interacting (1)</b> 30:10</p> <p><b>interested (2)</b> 19:9;41:2</p> <p><b>into (7)</b> 9:4;11:2;12:9,14; 15:12,23;42:10</p> <p><b>introduction (1)</b> 3:18</p> <p><b>involve (1)</b> 5:24</p> <p><b>involved (1)</b> 30:16</p> <p><b>Iron (3)</b> 3:4;7:22;15:25</p> <p><b>ISA (8)</b> 6:18;7:21;14:4,23; 16:4,13,16,21</p> <p><b>issue (3)</b> 5:7,12;26:22</p> <p><b>issued (1)</b> 27:2</p> <p><b>issues (1)</b> 36:14</p>	<p>34:21;43:7</p> <p><b>keeping (1)</b> 42:14</p> <p><b>key (1)</b> 26:7</p> <p><b>kilovolt (6)</b> 3:4;5:20;8:2;16:4, 12,15</p> <p><b>kind (5)</b> 9:7,11;10:1,5;25:3</p> <p><b>knowledge (3)</b> 31:5,7,13</p> <p><b>Kodi (4)</b> 38:2,2,8,11</p> <p><b>Kramer (4)</b> 2:11;29:6,8,8</p> <p><b>K-r-a-m-e-r (1)</b> 29:9</p> <p><b>kV (6)</b> 16:16;18:21;34:15; 38:25,25;39:6</p>
<b>H</b>				
<p><b>habitat (1)</b> 21:22</p> <p><b>half (2)</b> 16:19;28:12</p> <p><b>hand (3)</b> 6:12;12:1;15:8</p> <p><b>handed (1)</b> 10:15</p> <p><b>happen (3)</b> 30:22,23;36:18</p> <p><b>happens (1)</b> 25:20</p> <p><b>happy (1)</b> 35:10</p> <p><b>hard (1)</b> 37:3</p> <p><b>head (2)</b> 9:4;11:2</p> <p><b>headquartered (1)</b> 7:12</p> <p><b>hear (3)</b> 4:5;5:1;21:5</p> <p><b>heard (1)</b> 28:17</p> <p><b>hearing (2)</b> 27:6,7</p> <p><b>hearings (1)</b> 27:4</p> <p><b>heavy (3)</b> 16:24;17:5;20:7</p> <p><b>heights (1)</b> 34:21</p> <p><b>held (2)</b> 3:6,7</p> <p><b>Hello (1)</b> 35:15</p> <p><b>help (10)</b> 4:13,24;11:18; 21:11,16;22:7;24:8; 31:25;36:10;42:24</p> <p><b>helps (1)</b> 11:21</p> <p><b>Hermantown (6)</b></p>	<p><b>identified (7)</b> 11:9;15:5,6;18:3, 18,20;23:16</p> <p><b>identifies (2)</b> 17:21,22</p> <p><b>identify (1)</b> 29:20</p> <p><b>identifying (1)</b> 43:6</p> <p><b>impact (3)</b></p>	<b>I</b>		
<b>J</b>				
<b>K</b>				
<b>L</b>				
<b>M</b>				
<b>N</b>				
<b>O</b>				
<b>P</b>				
<b>Q</b>				
<b>R</b>				
<b>S</b>				
<b>T</b>				
<b>U</b>				
<b>V</b>				
<b>W</b>				
<b>X</b>				
<b>Y</b>				
<b>Z</b>				

<p><b>leukemia (2)</b> 42:6,9</p> <p><b>level (6)</b> 6:20;7:20;18:16; 19:18;20:17;37:14</p> <p><b>levels (1)</b> 37:23</p> <p><b>libraries (1)</b> 23:20</p> <p><b>life (2)</b> 22:5;32:10</p> <p><b>lighted (1)</b> 33:19</p> <p><b>likely (1)</b> 27:11</p> <p><b>limit (5)</b> 12:3,11;13:11,12; 28:10</p> <p><b>limitation (1)</b> 12:5</p> <p><b>limiting (1)</b> 21:25</p> <p><b>line (35)</b> 3:5,9;5:20;6:19; 7:21;8:3,9;21;12:9; 14:12;15:19;16:4,5, 12;18;12,12;22:12; 23:6;25:18;29:11,16; 30:4,21;32:3,19,23; 34:12,16;37:15,23; 39:2,4,7,14;41:9,25</p> <p><b>lines (11)</b> 7:2;9:11;15:17; 22:12;30:11;32:19, 22,25;33:4;34:20; 39:8</p> <p><b>link (1)</b> 27:19</p> <p><b>list (1)</b> 18:9</p> <p><b>listen (1)</b> 5:16</p> <p><b>little (3)</b> 10:21;23:3;31:13</p> <p><b>live (4)</b> 13:8;29:10;32:16, 23</p> <p><b>load (1)</b> 13:19</p> <p><b>loaded (1)</b> 37:21</p> <p><b>loading (4)</b> 37:17,18;38:1,4</p> <p><b>local (6)</b> 5:3;10:1;13:19; 20:16;22:8;23:20</p> <p><b>located (3)</b> 15:18;30:3;35:1</p> <p><b>location (1)</b> 16:10</p> <p><b>locations (1)</b> 3:8</p> <p><b>long (3)</b></p>	<p>10:20;35:21;41:21</p> <p><b>longer (1)</b> 14:8</p> <p><b>look (10)</b> 9:24;12:17;18:7; 19:12;33:20;34:11, 25;41:10,19;42:10</p> <p><b>looked (2)</b> 34:11;36:22</p> <p><b>looking (10)</b> 9:19;10:17;18:19; 19:1;25:5;33:17;35:7; 37:19;41:5,16</p> <p><b>lot (10)</b> 10:2,8;12:16,16; 13:8,9,22,23;18:2; 42:11</p> <p><b>Lots (1)</b> 20:15</p> <p><b>Louis (6)</b> 3:4;7:24;16:2,7,19; 29:12</p> <p><b>lower (1)</b> 41:23</p>	<p>8:15;34:8,10;36:1</p> <p><b>mean (3)</b> 24:25;34:7;38:23</p> <p><b>meaning (2)</b> 15:18;40:3</p> <p><b>means (1)</b> 32:9</p> <p><b>measurement (1)</b> 41:17</p> <p><b>measures (3)</b> 21:24;24:5;25:9</p> <p><b>meet (3)</b> 14:25;24:17;25:17</p> <p><b>Meeting (15)</b> 3:3,11,12,15;4:2; 11:13;27:14,16,16; 31:23;33:10;35:11; 36:11;39:24;43:4</p> <p><b>meetings (7)</b> 3:6;14:10;26:18; 32:21;39:22;40:11; 43:2</p> <p><b>megawatts (1)</b> 6:25</p> <p><b>mentioned (4)</b> 18:7;20:6,24;24:11</p> <p><b>mentioning (1)</b> 12:21</p> <p><b>merits (1)</b> 40:4</p> <p><b>Mesaba (2)</b> 35:19,22</p> <p><b>met (1)</b> 7:3</p> <p><b>methods (1)</b> 25:13</p> <p><b>microphone (2)</b> 3:19;28:6</p> <p><b>Midcontinent (1)</b> 8:22</p> <p><b>midwest (1)</b> 8:19</p> <p><b>might (1)</b> 40:20</p> <p><b>mike (5)</b> 3:21;8:4;28:19,20; 41:2</p> <p><b>mile (1)</b> 16:19</p> <p><b>miles (2)</b> 7:1;8:2</p> <p><b>milestones (1)</b> 26:8</p> <p><b>mind (1)</b> 43:7</p> <p><b>minimize (2)</b> 17:23;25:13</p> <p><b>minimized (1)</b> 20:4</p> <p><b>Minnesota (20)</b> 3:16;6:17,21;7:18; 8:11;11:23;12:14,17, 22;14:11;19:7,19,20;</p>	<p>29:18,19;32:20;33:9; 35:24;38:3;42:18</p> <p><b>minute (1)</b> 40:21</p> <p><b>minutes (4)</b> 10:22;28:10,13; 39:25</p> <p><b>MISO (15)</b> 8:22,24;9:6,12,15, 18;10:14,19;11:9,15, 17;13:2;14:4,14;15:6</p> <p><b>missing (1)</b> 24:3</p> <p><b>mitigate (3)</b> 17:24;23:16;25:13</p> <p><b>mitigated (1)</b> 20:4</p> <p><b>mitigation (7)</b> 18:2,23;19:6,23; 21:24;24:5;25:9</p> <p><b>modeled (1)</b> 37:13</p> <p><b>models (1)</b> 37:13</p> <p><b>month (1)</b> 30:23</p> <p><b>more (19)</b> 6:11;10:7,21;11:11, 22,25;19:1;22:2; 30:12;31:6,6,24;32:7; 33:4;34:22,23;35:12, 13;41:1</p> <p><b>morning (1)</b> 35:17</p> <p><b>MORNINGSTAR (3)</b> 39:17,20;40:15</p> <p><b>most (2)</b> 29:15;39:3</p> <p><b>mostly (1)</b> 20:17</p> <p><b>move (4)</b> 10:17;11:12;28:17; 32:12</p> <p><b>moving (4)</b> 5:18;11:22;12:13; 13:4</p> <p><b>MP (1)</b> 10:11</p> <p><b>Mrs (1)</b> 39:18</p> <p><b>much (5)</b> 11:8;32:9;33:17; 41:23,23</p> <p><b>multiple (2)</b> 11:1,2</p> <p><b>municipalities (1)</b> 7:9</p> <p><b>must (1)</b> 23:13</p> <p><b>MVA (3)</b> 12:3,4;13:11</p>	<p style="text-align: center;"><b>N</b></p> <p><b>name (7)</b> 3:15;6:16;8:9;21:6; 28:7;29:8;32:14</p> <p><b>narrow (1)</b> 37:1</p> <p><b>nations (2)</b> 7:8;20:15</p> <p><b>natural (2)</b> 5:6;19:19</p> <p><b>necessary (2)</b> 13:13;25:25</p> <p><b>need (22)</b> 4:13;5:21,23,25; 8:12;9:2,23;10:7; 14:12;24:8,13,14,18; 25:11,17;26:5;27:11; 32:25;33:19;36:8; 37:21;42:24</p> <p><b>needed (3)</b> 13:18;26:24;27:3</p> <p><b>needs (13)</b> 9:19,20;10:24;11:1, 4,7,9;13:20;14:19,24; 15:5;37:1;42:4</p> <p><b>negotiate (1)</b> 30:7</p> <p><b>new (3)</b> 16:4,14;21:21</p> <p><b>next (11)</b> 5:18;11:3,24;13:23; 17:7;18:25;20:20; 25:2,20;28:3;32:12</p> <p><b>nice (1)</b> 31:10</p> <p><b>NIE (1)</b> 41:19</p> <p><b>night (1)</b> 39:24</p> <p><b>nobody (2)</b> 40:20;42:21</p> <p><b>noise (1)</b> 21:20</p> <p><b>non-transmission (1)</b> 24:24</p> <p><b>normal (1)</b> 30:25</p> <p><b>Normally (1)</b> 31:1</p> <p><b>north (3)</b> 12:23;16:1,10</p> <p><b>northeastern (1)</b> 6:23</p> <p><b>northern (1)</b> 35:23</p> <p><b>northwest (1)</b> 15:25</p> <p><b>northwestern (1)</b> 7:22</p> <p><b>note (2)</b> 18:2;22:22</p>
	<b>M</b>			
	<p><b>magnetic (8)</b> 37:12,14,22;38:16, 17,18,25;41:5</p> <p><b>mail (1)</b> 27:21</p> <p><b>main (2)</b> 25:6;29:17</p> <p><b>maintenance (2)</b> 36:14;37:9</p> <p><b>majority (1)</b> 6:23</p> <p><b>makes (1)</b> 31:12</p> <p><b>making (5)</b> 21:12;22:25;27:10; 40:6,9</p> <p><b>management (2)</b> 20:2;36:17</p> <p><b>manager (2)</b> 8:10;21:7</p> <p><b>map (2)</b> 8:17;34:25</p> <p><b>marinate (1)</b> 40:21</p> <p><b>materialize (1)</b> 14:13</p> <p><b>materials (1)</b> 3:13</p> <p><b>maximum (7)</b> 37:17,18;38:4;39:1, 2,12,13</p> <p><b>Maxon (3)</b> 2:3;3:1,16</p> <p><b>may (3)</b> 14:9;20:9;37:18</p> <p><b>maybe (4)</b></p>			

<p><b>notice (5)</b> 36:20,21,22,25; 37:1</p> <p><b>noticed (1)</b> 24:3</p> <p><b>November (1)</b> 36:22</p> <p><b>number (6)</b> 9:6;14:6;20:24; 37:25;38:9;39:5</p> <p><b>numbers (1)</b> 42:4</p> <p><b>Nye (2)</b> 35:18;36:13</p>	<p><b>operating (3)</b> 11:10;38:23,24</p> <p><b>operator (2)</b> 8:21,23</p> <p><b>opportunities (2)</b> 21:1;26:10</p> <p><b>opportunity (3)</b> 14:1;23:1;28:16</p> <p><b>options (2)</b> 17:10;35:9</p> <p><b>orange (1)</b> 15:24</p> <p><b>order (1)</b> 33:16</p> <p><b>originally (2)</b> 12:8;13:16</p> <p><b>others (1)</b> 4:3</p> <p><b>out (18)</b> 3:14;14:11;17:7; 18:4,24;30:5,15,20, 24;31:1,2,4,6,9,14,24; 36:22;43:10</p> <p><b>outcome (1)</b> 14:14</p> <p><b>outlined (1)</b> 9:14</p> <p><b>outside (1)</b> 31:19</p> <p><b>over (13)</b> 4:9,12;6:24;12:12, 19,21,22;14:10;17:7; 18:16;33:18;37:11; 41:11</p> <p><b>overhead (1)</b> 8:3</p> <p><b>Overland (17)</b> 2:13;35:14,15,16; 38:3,6,9,22;39:5,11, 15,18,19,20;40:14; 41:4;42:15</p> <p><b>O-v-e-r-l-a-n-d (1)</b> 35:16</p> <p><b>overtaking (2)</b> 15:19;16:11</p> <p><b>overview (4)</b> 5:4;6:18,20;7:20</p> <p><b>owners (1)</b> 10:12</p> <p><b>ownership (1)</b> 7:13</p>	<p><b>parcels (1)</b> 32:24</p> <p><b>part (8)</b> 8:17;9:11;11:19; 13:17;15:10;17:15; 19:4;35:22</p> <p><b>parte (4)</b> 35:25;36:7;40:2,12</p> <p><b>participate (1)</b> 4:20</p> <p><b>participation (1)</b> 21:11</p> <p><b>particularly (1)</b> 38:16</p> <p><b>parts (1)</b> 11:16</p> <p><b>pass (2)</b> 3:21;8:4</p> <p><b>passing (1)</b> 3:19</p> <p><b>path (1)</b> 3:8</p> <p><b>people (11)</b> 4:12;28:23,23; 30:19;31:6,18;34:4; 36:5,8,11;37:2</p> <p><b>percent (4)</b> 7:5;12:19,22;15:16</p> <p><b>period (10)</b> 9:18;22:17;23:10; 25:22;26:19;27:5,6; 28:1;36:21;43:8</p> <p><b>permit (36)</b> 3:23;4:18,25;5:11, 22,24;15:12;17:15; 18:5,23;21:17;22:4, 11,13,16,19,19,23; 23:2,6,8,11;24:12; 25:15;26:2,22;27:1, 11,13;36:16,17;37:7, 7;40:10,10;42:14</p> <p><b>permits (1)</b> 5:7</p> <p><b>permit's (1)</b> 32:10</p> <p><b>permitted (3)</b> 14:15;22:6;32:2</p> <p><b>permitting (4)</b> 4:22;17:6;19:5; 21:14</p> <p><b>person (3)</b> 4:8;31:4,9</p> <p><b>personal (1)</b> 43:6</p> <p><b>pesticides (1)</b> 37:6</p> <p><b>Pete (3)</b> 29:6,8,8</p> <p><b>P-e-t-e (1)</b> 29:9</p> <p><b>phase (2)</b> 9:15;25:5</p> <p><b>phases (1)</b></p>	<p>9:9</p> <p><b>phone (1)</b> 20:24</p> <p><b>physical (2)</b> 23:18;27:21</p> <p><b>piece (4)</b> 16:24;17:10;20:8; 30:3</p> <p><b>places (1)</b> 37:22</p> <p><b>plan (4)</b> 10:19,20;19:6;20:2</p> <p><b>planning (3)</b> 8:10,25;13:2</p> <p><b>plannings (1)</b> 11:16</p> <p><b>plans (1)</b> 22:2</p> <p><b>please (4)</b> 4:3;18:25;20:20; 43:9</p> <p><b>plenty (1)</b> 20:18</p> <p><b>plots (1)</b> 38:15</p> <p><b>plus (1)</b> 32:19</p> <p><b>pm (3)</b> 28:2;43:8,14</p> <p><b>point (6)</b> 10:18;13:22;16:1,8; 22:24;34:5</p> <p><b>points (4)</b> 8:13;10:13;11:25; 29:20</p> <p><b>poles (2)</b> 32:22;33:8</p> <p><b>Pollution (1)</b> 19:20</p> <p><b>portfolio (7)</b> 8:18,19;9:12;10:4, 5,23;11:19</p> <p><b>portion (4)</b> 4:8;6:9,23;11:8</p> <p><b>possibly (2)</b> 4:25;25:1</p> <p><b>posted (1)</b> 43:3</p> <p><b>potential (7)</b> 17:1;19:16,20,23; 25:7,13;38:19</p> <p><b>Power (20)</b> 6:18,21;7:18;8:11; 10:6,8,10;11:12,22; 12:5,6,18;13:4,5; 14:11;29:18;32:20; 33:9;38:3;42:18</p> <p><b>practical (1)</b> 25:12</p> <p><b>preliminary (1)</b> 25:23</p> <p><b>prepare (4)</b> 6:1;24:8,10,15</p>	<p><b>prepared (5)</b> 6:4;17:16;18:11; 19:5;20:1</p> <p><b>present (1)</b> 3:12</p> <p><b>presentation (1)</b> 6:10</p> <p><b>PRESENTATIONS (1)</b> 2:1</p> <p><b>presenters (1)</b> 4:4</p> <p><b>preservation (1)</b> 19:15</p> <p><b>pretty (3)</b> 19:12;32:9;37:3</p> <p><b>primarily (1)</b> 7:16</p> <p><b>probably (6)</b> 12:19;29:25;32:21; 34:25;37:20;41:9</p> <p><b>problem (4)</b> 35:24;36:19;37:10; 42:11</p> <p><b>problems (1)</b> 36:14</p> <p><b>procedures (1)</b> 32:4</p> <p><b>proceeding (2)</b> 5:25;40:4</p> <p><b>proceedings (3)</b> 2:22;24:14;43:14</p> <p><b>process (23)</b> 3:24;4:22;6:11; 17:6;19:5;20:11;21:3, 11,13,15,16;22:10,25; 25:5;26:8,12,14,17; 27:25;30:25;32:5,6; 35:7</p> <p><b>produced (1)</b> 9:22</p> <p><b>progress (1)</b> 20:10</p> <p><b>project (65)</b> 3:5,20;4:17,23; 5:19;6:6,19;7:10,14, 21;8:1,12,17;9:13; 10:12,13,14,16,17,23; 11:18,21;12:8;13:14; 14:4,7,15,23;15:5; 16:17,21;17:13,18; 18:1,5,12;20:6,8,25; 21:16,19;22:6,20,24; 23:7,9,25;24:11,17, 18,21,25;25:10,17,19; 26:4,7;29:14;32:2; 34:15;35:19,23,23; 38:19;39:9</p> <p><b>projects (5)</b> 8:18;14:15,20; 22:12,14</p> <p><b>promoting (1)</b> 35:22</p> <p><b>property (7)</b></p>
<b>O</b>				
<p><b>oak (2)</b> 36:23;37:3</p> <p><b>obligation (1)</b> 10:13</p> <p><b>obtain (1)</b> 17:9</p> <p><b>obviously (1)</b> 17:5</p> <p><b>occurred (1)</b> 9:8</p> <p><b>occurs (1)</b> 36:19</p> <p><b>off (5)</b> 3:19;6:12;8:4; 10:15;33:3</p> <p><b>office (1)</b> 19:15</p> <p><b>official (1)</b> 21:3</p> <p><b>officially (1)</b> 26:16</p> <p><b>old (1)</b> 42:11</p> <p><b>once (1)</b> 43:3</p> <p><b>one (17)</b> 3:7;4:8;8:15;10:18; 12:2;13:23;16:14,18; 18:20;28:5;30:2; 31:24;32:20;33:8; 34:20;35:13,18</p> <p><b>online (1)</b> 27:19</p> <p><b>only (2)</b> 26:11;30:2</p> <p><b>onto (1)</b> 5:18</p> <p><b>open (16)</b> 3:24;8:15;14:9; 16:25;20:12;26:19; 27:14;28:11,14,21,24; 40:4,11,18,18,25</p> <p><b>operate (2)</b> 16:15,16</p> <p><b>operates (1)</b> 9:3</p>	<p><b>others (1)</b> 4:3</p> <p><b>out (18)</b> 3:14;14:11;17:7; 18:4,24;30:5,15,20, 24;31:1,2,4,6,9,14,24; 36:22;43:10</p> <p><b>outcome (1)</b> 14:14</p> <p><b>outlined (1)</b> 9:14</p> <p><b>outside (1)</b> 31:19</p> <p><b>over (13)</b> 4:9,12;6:24;12:12, 19,21,22;14:10;17:7; 18:16;33:18;37:11; 41:11</p> <p><b>overhead (1)</b> 8:3</p> <p><b>Overland (17)</b> 2:13;35:14,15,16; 38:3,6,9,22;39:5,11, 15,18,19,20;40:14; 41:4;42:15</p> <p><b>O-v-e-r-l-a-n-d (1)</b> 35:16</p> <p><b>overtaking (2)</b> 15:19;16:11</p> <p><b>overview (4)</b> 5:4;6:18,20;7:20</p> <p><b>owners (1)</b> 10:12</p> <p><b>ownership (1)</b> 7:13</p>			
<b>P</b>				
	<p><b>PAGE (5)</b> 2:1;37:25;41:10,13; 42:24</p> <p><b>panel (1)</b> 35:22</p> <p><b>parallel (2)</b> 15:19;29:15</p> <p><b>paralleled (1)</b> 39:8</p>			

29:16;30:3;31:8,10; 33:3;36:20,24 <b>proposed (25)</b> 3:3,8,20;4:16;5:19; 6:5;13:25;14:17,21; 15:3,14,15,22;16:3, 11,21;17:18;22:12, 21;23:7;24:16;25:10, 18;34:15;38:18 <b>proposing (1)</b> 14:23 <b>proven (1)</b> 42:7 <b>provide (5)</b> 3:20;5:4;21:15; 24:1;27:15 <b>provided (2)</b> 17:3;27:20 <b>providing (2)</b> 4:20;22:7 <b>Public (21)</b> 3:2,16,22;4:17;5:5; 6:1;16:25;17:10;19:2; 21:7;23:8,24;26:10, 11,21;27:4,7,14;32:5; 42:23;43:2 <b>publicly (1)</b> 27:8 <b>PUC (2)</b> 21:3;29:20 <b>purposes (1)</b> 13:19 <b>push (1)</b> 31:18 <b>put (3)</b> 15:6;34:22;39:3 <b>putting (2)</b> 32:22;33:7	5:2;11:7 <b>real (2)</b> 18:16;36:17 <b>reality (1)</b> 13:7 <b>really (13)</b> 4:1,9;12:4;13:3,6; 16:24;20:7;25:5;28:5, 19;32:6;36:24;42:11 <b>reason (1)</b> 30:2 <b>reasonable (2)</b> 30:7;34:21 <b>receive (3)</b> 4:17;24:7;25:21 <b>recently (2)</b> 14:16;19:8 <b>Recess (1)</b> 40:24 <b>recognize (2)</b> 18:22;29:14 <b>recommend (1)</b> 41:21 <b>recommendations (1)</b> 40:7 <b>record (11)</b> 2:23;4:12,18;21:12; 25:21;27:8,10;35:10; 40:3,6,8 <b>recording (1)</b> 4:11 <b>recreation (1)</b> 18:19 <b>reduce (2)</b> 21:19;22:9 <b>region (3)</b> 8:25;10:9;13:4 <b>regional (11)</b> 8:10,18;9:1;10:19, 19,25;13:9,13,19; 14:5,24 <b>regions (1)</b> 8:21 <b>regular (1)</b> 12:24 <b>regulate (1)</b> 5:6 <b>regulatory (2)</b> 12:11;13:12 <b>related (1)</b> 8:13 <b>relevant (2)</b> 8:4;17:2 <b>reliability (5)</b> 9:18;11:10;14:5,18; 34:24 <b>reliable (3)</b> 9:1,23;11:13 <b>relies (1)</b> 21:10 <b>remain (1)</b> 26:19 <b>remember (2)</b>	14:9;41:23 <b>remind (1)</b> 28:15 <b>reminded (2)</b> 35:19;36:13 <b>reminders (1)</b> 42:22 <b>removal (1)</b> 13:11 <b>removed (1)</b> 13:17 <b>renewable (2)</b> 7:5;12:22 <b>renewables (1)</b> 13:10 <b>replacement (1)</b> 22:2 <b>report (7)</b> 6:2;24:16;26:5,25; 27:2,7;41:20 <b>reporter (2)</b> 4:10;28:7 <b>reports (1)</b> 24:16 <b>represent (1)</b> 26:9 <b>representation (1)</b> 23:4 <b>represents (1)</b> 26:13 <b>requesting (2)</b> 13:16,17 <b>require (2)</b> 5:20;24:15 <b>resources (12)</b> 13:5;18:9,16;19:1, 11,12,12,14,16,19,21, 22 <b>respect (1)</b> 39:21 <b>respectful (2)</b> 4:3;40:12 <b>respectfully (1)</b> 28:18 <b>respond (1)</b> 38:12 <b>responsible (1)</b> 8:24 <b>restriction (1)</b> 33:18 <b>restrictions (1)</b> 40:12 <b>review (6)</b> 3:24;4:22;5:24; 21:7;26:6,8 <b>reviewed (2)</b> 19:6;20:2 <b>reviewing (1)</b> 19:10 <b>right (9)</b> 11:24;29:2,10,18; 31:16;33:6,14;39:16, 23	<b>right-of-way (2)</b> 15:20;41:8 <b>River (3)</b> 16:2,10;29:12 <b>Road (2)</b> 29:10;32:17 <b>Robert (9)</b> 32:13,15,15;33:14, 22,25;34:4,17;35:3 <b>R-o-b-e-r-t (1)</b> 32:16 <b>robust (1)</b> 29:12 <b>rounds (2)</b> 16:25;20:12 <b>route (16)</b> 5:7,22,24;15:10,12, 14,15,22;17:1,15; 18:4;24:12;25:10; 27:11;29:15;34:10 <b>routing (4)</b> 17:3;22:1;24:23; 35:8 <b>rows (1)</b> 26:9 <b>rules (1)</b> 4:2 <b>run (1)</b> 16:3 <b>running (4)</b> 8:3;15:18;16:1; 17:8 <b>runs (1)</b> 16:7 <b>rushes (1)</b> 40:20	<b>screen (1)</b> 8:7 <b>second (5)</b> 9:14,15;25:12;26:1; 27:5 <b>secondly (1)</b> 36:13 <b>section (4)</b> 11:14,20;37:6; 38:15 <b>seeing (1)</b> 13:22 <b>segment (11)</b> 15:24;16:3,6,9,11, 18,19;34:14;41:16; 42:1 <b>segments (1)</b> 15:23 <b>sell (1)</b> 29:24 <b>senate (1)</b> 5:10 <b>send (1)</b> 27:20 <b>sense (3)</b> 18:13;30:16;31:13 <b>separate (2)</b> 15:1;32:25 <b>Separately (1)</b> 6:3 <b>serve (1)</b> 12:22 <b>service (3)</b> 6:22;15:2;17:13 <b>services (1)</b> 19:2 <b>servicing (2)</b> 12:20;13:20 <b>set (4)</b> 32:22;33:8;34:20, 23 <b>several (1)</b> 9:20 <b>shape (1)</b> 21:16 <b>sheet (1)</b> 27:18 <b>show (1)</b> 42:25 <b>showing (2)</b> 37:17;42:12 <b>side (7)</b> 16:14,16;41:9,15, 18;42:2,3 <b>sides (2)</b> 16:12;31:12 <b>Sieben (3)</b> 5:14;36:2;39:24 <b>sign (1)</b> 30:7 <b>signed (3)</b> 28:24;35:13;40:17 <b>significantly (2)</b>
<b>Q</b>			<b>S</b>	
<b>quick (2)</b> 3:15;28:5 <b>quite (2)</b> 18:21;28:9			<b>SAARAH (5)</b> 3:1,15;6:14;24:11; 27:23 <b>Saarah's (1)</b> 43:11 <b>same (6)</b> 3:12,13;16:10; 22:11;23:6;31:8 <b>sample (3)</b> 22:11,16;23:6 <b>saw (2)</b> 8:15;36:23 <b>sawmill (1)</b> 35:20 <b>saying (1)</b> 38:14 <b>schedule (1)</b> 26:7 <b>scope (2)</b> 26:4,25 <b>scoped (1)</b> 16:17 <b>Scoping (1)</b> 3:3	
<b>R</b>				
<b>ramps (1)</b> 31:5 <b>Range (3)</b> 3:4;7:22;15:25 <b>Rapids (1)</b> 39:23 <b>rather (1)</b> 7:17 <b>rating (3)</b> 39:2,3,14 <b>reach (4)</b> 30:5;31:1,24;43:10 <b>reaching (1)</b> 30:20 <b>read (2)</b>				

<p>10:9;13:15  <b>signing (1)</b>                  30:15  <b>signs (1)</b>                  31:11  <b>similar (3)</b>                  14:12,21;19:25  <b>single (3)</b>                  37:19;38:20;42:3  <b>site (1)</b>                  5:7  <b>six (1)</b>                  32:24  <b>size (2)</b>                  24:20,20  <b>slide (13)</b>                  5:18;10:18;11:3,24;                  13:21,23;18:25;20:6,                  20;25:2;26:6;28:3,22  <b>slides (1)</b>                  18:15  <b>small (1)</b>                  7:13  <b>somebody (3)</b>                  30:1;32:20;33:9  <b>someone (1)</b>                  28:18  <b>sometimes (1)</b>                  31:11  <b>soon (1)</b>                  5:16  <b>sooner (1)</b>                  24:25  <b>sorry (2)</b>                  5:14;34:2  <b>sort (1)</b>                  13:19  <b>sorts (1)</b>                  21:1  <b>sounds (1)</b>                  5:15  <b>southeast (1)</b>                  16:8  <b>southeastern (1)</b>                  7:23  <b>spans (1)</b>                  6:22  <b>speak (3)</b>                  4:8,9;28:20  <b>speaker (2)</b>                  28:5;32:13  <b>SPEAKERS (2)</b>                  2:9;40:17  <b>speaking (1)</b>                  28:19  <b>special (3)</b>                  18:23;22:4,19  <b>specialist (1)</b>                  6:17  <b>specific (3)</b>                  10:24;22:20;23:8  <b>specifically (2)</b>                  19:3,25</p>	<p><b>spell (2)</b>                  28:6;32:13  <b>spraying (2)</b>                  30:22;31:3  <b>St (6)</b>                  3:4;7:24;16:1,7,19;                  29:11  <b>stacking (2)</b>                  33:13,20  <b>staff (8)</b>                  4:21;5:25;21:10;                  24:10,15;31:24;32:8;                  40:5  <b>stage (1)</b>                  40:10  <b>stake (1)</b>                  7:13  <b>stakeholder (3)</b>                  16:24;20:7,18  <b>stand (1)</b>                  8:6  <b>standard (2)</b>                  22:3,13  <b>standpoint (2)</b>                  17:22;18:9  <b>star (1)</b>                  26:13  <b>start (7)</b>                  3:14;6:20;22:10,16;                  28:11,13;34:22  <b>started (2)</b>                  4:1;26:17  <b>starting (4)</b>                  15:23,25;17:6;                  22:24  <b>State (9)</b>                  4:21;6:23;7:3,5;                  17:2;19:13,15;28:6;                  32:13  <b>stated (1)</b>                  25:17  <b>statement (1)</b>                  36:5  <b>states (2)</b>                  8:20;11:2  <b>State's (2)</b>                  20:3;21:14  <b>stifle (1)</b>                  30:17  <b>still (4)</b>                  14:22;20:23;24:17;                  31:13  <b>strategies (1)</b>                  17:23  <b>stringing (1)</b>                  16:12  <b>structure (4)</b>                  16:14;24:22;34:21;                  38:19  <b>structures (6)</b>                  16:13;18:20,22;                  33:1,19;34:5  <b>studied (1)</b></p>	<p>25:19  <b>studies (4)</b>                  9:8;14:14;42:10,12  <b>stuff (1)</b>                  34:22  <b>submissions (1)</b>                  43:6  <b>submit (1)</b>                  27:17  <b>sub-resources (1)</b>                  18:10  <b>substation (8)</b>                  7:23,25;12:3,7,9;                  16:1,7,20  <b>substations (3)</b>                  7:24;8:4;16:20  <b>summary (1)</b>                  25:4  <b>support (1)</b>                  14:18  <b>supports (1)</b>                  11:1  <b>supposed (1)</b>                  31:14  <b>sure (7)</b>                  4:4,9;1,23;28:17;                  30:9;34:2;36:11  <b>survey (1)</b>                  30:5  <b>System (11)</b>                  8:22;9:1,3,23,24;                  10:1,2,10;23:25;                  24:17,19</p>	<p><b>third (2)</b>                  25:16;26:3  <b>three (8)</b>                  3:7;15:23;25:6,23;                  28:8,10,13;29:23  <b>throughout (3)</b>                  17:11;22:5;32:10  <b>Thursday (1)</b>                  3:11  <b>till (1)</b>                  40:24  <b>timeline (2)</b>                  16:22;20:6  <b>times (4)</b>                  9:24;18:2;20:9;                  28:8  <b>timing (2)</b>                  24:20,25  <b>today (21)</b>                  3:2,7;4:6,16;5:13;                  8:14;9:25;10:10,17;                  12:20,24;13:8;14:3,                  14,22,23;21:10,14;                  23:18;28:9;33:7  <b>Today's (2)</b>                  15:4;27:16  <b>together (1)</b>                  34:12  <b>token (1)</b>                  31:8  <b>told (2)</b>                  32:19;33:8  <b>tomorrow (2)</b>                  9:19;36:3  <b>tomorrows (1)</b>                  9:20  <b>took (1)</b>                  11:17  <b>topic (1)</b>                  15:4  <b>topics (5)</b>                  3:12;24:7;25:3,6;                  28:22  <b>total (2)</b>                  7:7;15:16  <b>touch (1)</b>                  19:3  <b>touching (1)</b>                  30:19  <b>towers (5)</b>                  33:5,17,21;34:20,                  23  <b>town (1)</b>                  33:10  <b>township (1)</b>                  20:17  <b>track (1)</b>                  31:12  <b>tracked (1)</b>                  30:24  <b>tracks (1)</b>                  22:5  <b>Tranche (2)</b></p>	<p>9:12,13  <b>Tranches (2)</b>                  9:10;10:4  <b>transcripts (1)</b>                  43:1  <b>transfer (1)</b>                  13:9  <b>transfers (1)</b>                  12:13  <b>transition (1)</b>                  16:9  <b>transmission (31)</b>                  3:5,9;5:20;6:19;7:1,                  11,17,21;8:3,10,18,                  25;9:22,24;10:2,11;                  12:9;13:5;14:12;15:4,                  17;16:5;22:12;23:6;                  25:18;29:11,19;30:4;                  34:12,20;39:2  <b>transportation (1)</b>                  19:2  <b>tree (4)</b>                  21:21;22:2;36:23;                  37:4  <b>trees (1)</b>                  31:2  <b>Tribal (1)</b>                  20:15  <b>try (2)</b>                  28:17;30:7  <b>trying (5)</b>                  13:2,3;30:1;31:19;                  33:3  <b>Tuma (2)</b>                  36:1;39:23  <b>turn (1)</b>                  28:20  <b>twice (1)</b>                  28:8  <b>two (10)</b>                  5:20;9:9;10:4;                  29:23;30:11;32:18,                  25;33:4;34:20,23  <b>type (2)</b>                  24:20,22  <b>types (1)</b>                  24:23  <b>typically (2)</b>                  33:18;37:11</p>
<b>T</b>				
<p><b>table (8)</b>                  6:21;22:15;38:8;                  39:4;41:6,10,16;42:1  <b>talk (9)</b>                  4:15;10:21;13:1;                  15:9;23:2;32:8;35:11,                  11;40:3  <b>talked (4)</b>                  13:12;23:5;25:4;                  26:23  <b>talking (5)</b>                  4:12;14:11,23,24;                  34:13  <b>tall (2)</b>                  8:7;33:23  <b>taller (3)</b>                  18:21;33:17,21  <b>tells (1)</b>                  30:4  <b>tentative (1)</b>                  26:6  <b>Terry (1)</b>                  5:14  <b>texts (1)</b>                  29:23  <b>thanks (2)</b>                  43:12,12</p>				
<b>U</b>				
<p><b>ultimately (4)</b>                  5:11;14:13;23:9,10  <b>Under (1)</b>                  5:25  <b>understated (1)</b>                  37:16  <b>unique (3)</b>                  22:8;24:2;25:8  <b>unit (1)</b>                  20:16  <b>unknown (1)</b></p>				

31:9 <b>up (34)</b> 3:21,24;6:7;8:7; 9:14;15:7,14,15,24; 20:25;28:8,8,11,11, 14,21,22,24,24;29:6; 30:8;31:5;34:9;35:2, 8,14;40:17,18,18,20, 22;41:1,2;42:21 <b>updated (3)</b> 20:9,10,25 <b>upper (1)</b> 8:19 <b>urge (1)</b> 42:10 <b>usable (1)</b> 33:4 <b>use (3)</b> 9:25;10:2,10 <b>used (2)</b> 9:5,21 <b>usually (1)</b> 37:15 <b>Utilities (11)</b> 3:17,22;5:5,7;6:1; 7:16;9:2;11:1;21:8; 23:24;32:5 <b>utility (4)</b> 7:5,12,15;12:21 <b>utilize (1)</b> 32:6	<b>voltages (1)</b> 24:21 <b>volume (2)</b> 11:5,6  <b>W</b>  <b>wait (1)</b> 28:19 <b>wants (2)</b> 4:5;42:21 <b>water (3)</b> 19:11,16,21 <b>way (6)</b> 9:17,21;10:1,5; 11:21;31:4 <b>ways (6)</b> 9:5;21:15,19;22:9; 23:15;25:16 <b>web (1)</b> 42:24 <b>website (4)</b> 6:7;20:9,25;23:24 <b>weed (1)</b> 30:14 <b>week (4)</b> 26:19;27:17;29:23; 43:2 <b>Welcome (4)</b> 3:1;27:14,23;28:5 <b>west (1)</b> 12:14 <b>what's (1)</b> 30:18 <b>WHEREUPON (1)</b> 2:22 <b>whole (1)</b> 11:7 <b>wildlife (2)</b> 19:24;21:22 <b>willing (1)</b> 34:11 <b>window (2)</b> 36:23;37:1 <b>Winter (11)</b> 2:5;8:6,9;27:12; 34:8,19;38:11,13,24; 39:6,13 <b>Wisconsin (4)</b> 7:12;11:23;12:10, 15 <b>wit (1)</b> 2:23 <b>within (1)</b> 34:21 <b>word (1)</b> 12:4 <b>working (4)</b> 20:3;30:13;32:23; 34:6 <b>world (2)</b> 12:25;13:7 <b>wrap (1)</b>	3:21 <b>written (2)</b> 27:17;43:7  <b>Y</b>  <b>year (8)</b> 8:16,17;16:23;17:1, 5,7;20:14;37:3 <b>years (8)</b> 7:4;9:7,20;10:3; 14:6;17:7;34:7;37:12 <b>yesterday (3)</b> 3:7;35:16;36:1  <b>1</b>  <b>1 (6)</b> 9:12;11:5;15:24; 16:3,9;41:16 <b>1,600 (1)</b> 6:24 <b>1:05 (1)</b> 43:14 <b>10 (1)</b> 33:5 <b>100 (2)</b> 41:18,19 <b>11 (1)</b> 33:5 <b>11167 (1)</b> 29:10 <b>12:47 (1)</b> 40:24 <b>12:55 (2)</b> 40:23,24 <b>130.1 (1)</b> 42:2 <b>14 (1)</b> 7:9 <b>145.7 (1)</b> 41:18 <b>15 (2)</b> 2:6;9:20 <b>150 (1)</b> 41:8 <b>150,000 (1)</b> 7:7 <b>16 (1)</b> 7:4 <b>160.6 (1)</b> 41:19 <b>19 (1)</b> 41:6 <b>190 (1)</b> 41:24  <b>2</b>  <b>2 (7)</b> 9:13;11:6;16:6,9, 11;34:14;42:2 <b>20 (5)</b>	9:20;15:20;41:6,10, 16 <b>200 (1)</b> 33:18 <b>2000s (2)</b> 12:10;13:1 <b>2001 (2)</b> 12:17;41:23 <b>2007 (1)</b> 35:20 <b>2020 (1)</b> 9:7 <b>2022 (1)</b> 9:10 <b>2025 (1)</b> 20:7 <b>2026 (2)</b> 27:3,12 <b>2029 (1)</b> 17:13 <b>2032 (1)</b> 17:14 <b>20th (1)</b> 26:16 <b>21 (3)</b> 2:7;41:6;42:1 <b>22 (1)</b> 41:6 <b>230 (8)</b> 16:4,12,15;18:21; 32:19;34:16;38:21,25 <b>23rd (3)</b> 26:20;28:2;43:8 <b>28 (2)</b> 38:8;39:4 <b>29 (1)</b> 2:11  <b>3</b>  <b>3 (2)</b> 2:3;16:18 <b>3,000 (4)</b> 39:7,9,12;41:7 <b>3.3 (1)</b> 11:14 <b>3.4 (1)</b> 11:20 <b>3.5 (1)</b> 11:20 <b>30 (1)</b> 37:12 <b>309 (1)</b> 41:19 <b>32 (1)</b> 2:12 <b>344 (2)</b> 41:13,14 <b>345 (9)</b> 3:4;5:19;8:2;16:16; 32:19;34:15;38:21, 25;39:6 <b>35 (1)</b>	2:13  <b>4</b>  <b>4:30 (2)</b> 28:2;43:8 <b>418 (1)</b> 41:18 <b>48.6 (1)</b> 42:2  <b>5</b>  <b>5.3.21 (1)</b> 37:7 <b>50 (4)</b> 7:5;12:22;41:18,19 <b>50s (1)</b> 9:25 <b>51 (2)</b> 41:10,14 <b>52 (1)</b> 41:14  <b>6</b>  <b>6 (1)</b> 2:4 <b>6.5 (1)</b> 38:15 <b>6.5.2 (1)</b> 38:16 <b>60 (1)</b> 41:13 <b>60s (1)</b> 9:25 <b>61 (1)</b> 41:13 <b>67 (1)</b> 8:1 <b>6702 (1)</b> 32:16  <b>7</b>  <b>70 (1)</b> 10:3 <b>70s (1)</b> 10:1 <b>75 (4)</b> 41:8,15,17;42:1  <b>8</b>  <b>8 (1)</b> 2:5 <b>8,700 (1)</b> 7:1 <b>80 (2)</b> 10:3;34:6 <b>800 (2)</b> 12:3;13:11
<b>V</b>				
<b>Valentine's (1)</b> 35:20 <b>valuable (1)</b> 17:3 <b>variable (1)</b> 11:11 <b>variety (1)</b> 18:7 <b>various (2)</b> 37:22,23 <b>vegetation (5)</b> 19:24,25;20:1,4; 36:17 <b>vehicle (1)</b> 30:24 <b>vehicles (2)</b> 31:12,12 <b>venture (1)</b> 30:1 <b>verbal (1)</b> 27:16 <b>VERHALEN (5)</b> 38:2,2,8,11,14 <b>via (1)</b> 42:23 <b>virtual (1)</b> 3:11 <b>visual (1)</b> 23:4				

<b>9</b>				
<b>92 (1)</b> 15:16 <b>95 (1)</b> 12:19 <b>9th (1)</b> 3:11				

1 PUBLIC INFORMATION AND SCOPING MEETINGS

2  
3 Docket Numbers E015/CN-25-111; E015/TL-25-112

4  
5 BEFORE THE COURT OF ADMINISTRATIVE HEARINGS  
6 FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION

7  
8 In the Matter of the Application of  
9 Minnesota Power and American Transmission Company,  
10 LLC for a Certificate of Need and Route Permit for  
11 the Iron Range - St. Louis County - Arrowhead 345 kV  
12 Transmission Project.

13  
14  
15 Taken at AAD Shrine Meeting and Event Center  
16 5152 Miller Trunk Highway  
Hermantown, MN 55811

17  
18 April 7, 2026  
19 6:00 P.M.  
20  
21  
22  
23

24 REPORTER: Jonna Schrupp, Stenographic Court Reporter  
25

Arrowhead Transmission Project - 25-111 25-112 - Hermantown - 6pm 2

1	PRESENTATIONS :	PAGE
2	Ms. Maxon	3
	Mr. Janke	7
3	Mr. Winter	9
	Mr. Janke	17
4	Ms. Johnson	22
5	SPEAKERS :	
6	Ms. Treasure	30
	Ms. Gilbertson	32
7	Mr. Bates	35
	Ms. Richtman	37
8	Ms. Ek	39
	Ms. Hafften	42
9	Ms. Peterson	45
	Mr. Wargin	47
10	Mr. Bradford	48
	Mr. Enberg	50
11	Ms. Milun	51
	Mr. Modich	52
12	Ms. Modich	54
	Ms. Mason	56
13	Ms. Dolente	58
	Ms. Elling	60
14	Ms. LaPointe	61
	Mr. Bates	64
15	Ms. Richtman	65
	Ms. Ralph	69
16	Ms. Harmon	70
	Ms. Peterson	73

17  
18  
19  
20  
21  
22  
23  
24  
25

WHEREUPON, the following proceedings  
were duly had and entered of record, to wit:

1 MS. SAARAH MAXON: Hello, everybody. Can  
2 you hear me in the back? Great.

3 So thank you for joining us today. This  
4 is the Public Information and Scoping Meeting for  
5 the proposed Iron Range, St. Louis County, Arrowhead  
6 345 kilovolt transmission line project.

7 The docket numbers of the Public  
8 Utilities Commission associated with this project  
9 are CN-25-111 and TL-25-112.

10 I'd just like to say thank you all for  
11 bearing with us getting started here. We had a  
12 little bit of delay because there was some natural  
13 gas smell but we're glad that it's all safe and  
14 we're here and we can meet, and we're just really  
15 glad you stuck it out to join the meeting with us.  
16 So thank you so much.

17 This is the in-person meeting being held  
18 today in Hermantown. We also held two other  
19 meetings today and yesterday at three locations  
20 along the proposed path of the transmission line.

21 Additionally we'll be holding a virtual  
22 public meeting on this Thursday, April 9th at six  
23 p.m. Each meeting covers the same topics and covers  
24 the same materials.

25 One important note, if you'd like to

1 provide a verbal comment in a smaller setting, if  
2 you don't like speaking in front of crowds or if you  
3 don't want to wait till the commenting section  
4 toward the end of the meeting, we do have a second  
5 court reporter taking down comments at the back of  
6 the room. Our lovely Bret is waving his hands  
7 there. If you head into that room she'll be able to  
8 take down your comments. Thank you.

9           So I'd like to just start with a quick  
10 agenda for this meeting. My name is Saarah Maxon  
11 and I am an analyst for the Minnesota Public  
12 Utilities Commission. I will be giving a brief  
13 introduction before I pass things off to the  
14 Applicants to provide a brief description of the  
15 project. Then they will pass things back to us and  
16 my colleague, Emily Johnson, here to my right, who  
17 is the environmental review manager for the proposed  
18 project, will explain the permit application review  
19 process in more detail before we open up the floor  
20 for comments and questions.

21           So before we really kick things off I'd  
22 just like to cover meeting ground rules. We ask  
23 that you please be respectful of others, including  
24 presenters and commenters. We just want to make  
25 sure we can hear from everybody here tonight who

1 wants to comment.

2           Additionally, when we get to the comment  
3 period we'll give the floor to one speaker at a  
4 time. As I mentioned previously, we do have a court  
5 reporter here and she is taking down everybody's  
6 comments and it's hard for her to hear and  
7 accurately transcribe comments if people are talking  
8 over each other, so just one person at a time.

9           So the reason we are here today. We at  
10 the Minnesota Public Utilities Commission are not  
11 for or against the proposed project. We are here to  
12 receive public input and compile a record for the  
13 Commission's informed permit decision.

14           You can participate by providing comments  
15 or asking questions of State staff about the  
16 permitting review process. You can also ask the  
17 Applicants questions about the project. Your  
18 comments are really important. They help the  
19 Commission with making an informed decision on the  
20 permit and could inform possible permit conditions.  
21 The commissioners want to hear from you. They care  
22 about how local communities feel. They do read  
23 through everybody's comments.

24           So I'd like to provide a brief overview  
25 of what we do at the Minnesota Public Utilities

1 Commission. We regulate electric, natural gas and  
2 landline utilities. We also issue site and route  
3 permits for large electrical facilities. There are  
4 five commissioners who are appointed by the governor  
5 and confirmed by the senate and these the  
6 individuals are the ones who ultimately decide the  
7 permit issue. Today we are joined by Commissioner  
8 Ham, who is here to listen to the meeting and just  
9 learn alongside everybody else.

10 Moving on to the next slide.

11 As I mentioned, the proposed project is  
12 for a 345 kilovolt transmission line and it will  
13 require two approvals from the Commission, a  
14 certificate of need and a route permit. Both the  
15 certificate of need and the route permit will  
16 involve environmental review.

17 Under the certificate of need proceedings  
18 our staff at the Public Utilities Commission will  
19 prepare an environmental report.

20 Separately, the Applicants have already  
21 prepared an environmental assessment and this was  
22 included in their application for the proposed  
23 project. You can find a copy of this on the  
24 Commission's website, or if you want I think we  
25 might have some here, just feel to come up and ask

1 us and we can help direct you to that.

2 This concludes my portion of the  
3 presentation. My colleague Emily will be back to go  
4 over the review process in depth later on, but for  
5 now I'll hand things off to the Applicant.

6 MR. DREW JANKE: Good evening, everyone.  
7 My name is Drew Janke. I'm an environmental  
8 compliance specialist with Minnesota Power here  
9 today to provide an overview of the project.

10 If you could flip to the next slide,  
11 please.

12 So starting with a general overview of  
13 Minnesota Power, who we are and where we are. As  
14 you can see up here, Minnesota Power's service  
15 territory covers a pretty good portion of the  
16 northeast portion of the state.

17 Currently we have a little over 1,600  
18 megawatts of power generation capability or  
19 capacity, about 8,700 miles of existing transmission  
20 and distribution lines.

21 We have met or exceeded the Minnesota  
22 Energy Savings Goals for the last 16 years, and we  
23 were the first utility in the state to deliver 50  
24 percent renewable energy to our customers.

25 Currently we have about 150,000

1 customers, including some of the nation's largest  
2 industrial customers as well as 14 municipalities.

3 We do have a co-applicant on the project  
4 here, American Transmission Company, or ATC. ATC is  
5 headquartered in Wisconsin and essentially ATC is a  
6 utility for utilities. So rather than operating in  
7 the generation and distribution side of the utility  
8 world, ATC focuses solely on the transmission  
9 aspects.

10 Here's just a real high level overview  
11 slide for the Iron Range to St. Louis County to  
12 Arrowhead, or ISA, transmission line project.

13 So Minnesota Power and ATC are  
14 co-applicants proposing an approximately 67 mile  
15 long 345 kilovolt overhead transmission line built  
16 on a double circuit capable structures from, as I  
17 mentioned, the Iron Range substation to St. Louis  
18 County substation and also to the Arrowhead  
19 substation.

20 I'm going to pass the colleague to my  
21 colleague Christian Winter.

22 MR. CHRISTIAN WINTER: I'm actually going  
23 to stand up so I can see the screen, so you can see  
24 me.

25 Thanks for coming this evening. My name

1 is Christian Winter. I'm the manager of regional  
2 transmission planning for Minnesota Power, and I'm  
3 going to cover some background on the project, where  
4 the project came from and a couple clarifying points  
5 related to what's covered in the application.

6 This slide here, if you have been to any  
7 of our open house meetings last year you probably  
8 saw this, it's on the boards over there, but this  
9 shows the MISO Tranche 2.1 portfolio. I'm not a fan  
10 of the word Tranche either, so I'm with you on that,  
11 if you've never heard that word before tonight. But  
12 what this is is MISO is the region's grid operator,  
13 making sure that this regional transmission grid  
14 that we all use in this 8 plus state area that you  
15 see on the screen here is reliable and meets all of  
16 our needs over the long term, for all the ways that  
17 we've used that in producing energy and transmitting  
18 it and then ultimately delivering it to all of us  
19 who use it in different ways.

20 MISO set out on a path to understand that  
21 starting back, and really before 2020, but starting  
22 back in 2020 they started designing transmission  
23 planning study effort, and that resulted in the  
24 first portfolio project in 2022 called Tranche 1,  
25 which are the gray lines on the map.

1 MISO immediately went into the sort of  
2 next phase of that planning, looking further out at  
3 kind of where things are headed, especially with  
4 renewable integration, decarbonization, you know,  
5 the retirement of fossil fuel generators and more  
6 prevalent use of resources like wind and solar,  
7 which we see in different ways all across this  
8 region.

9 So Tranche 2 includes projects, the  
10 project is outlined in the blue box up there, was  
11 approved by the MISO board in December 2024. So the  
12 project is part of this larger portfolio and the  
13 purpose of the portfolio under MISO's reliability  
14 imperative is to maintain reliable grid over the  
15 long haul.

16 It's not a portfolio that was developed  
17 for any individual customer or generator. Every  
18 project that's in that portfolio plays a role in  
19 what the portfolio does for the region, for region  
20 reliability in meeting the long term needs.

21 Now, MP and ATC have an obligation to  
22 deliver this project under the MISO tariff, and as  
23 part of that portfolio MISO is responsible for  
24 coming up with the projects and then we're  
25 responsible for taking and delivering that for them

1 -- well, designing, permitting and constructing it.

2           So that's why we're here tonight. We're  
3 here to talk about the Iron Range, St. Louis County,  
4 Arrowhead project, and ultimately under our  
5 obligation to work together to move that forward.

6           So let's go to the next slide.

7           This slide covers some of the project  
8 needs. That's largely what this certificate of need  
9 application is about, and it's a little intimidating  
10 to have two gigantic four inch binders here. But  
11 the need part is really just the front part of this,  
12 and it's covered in detail in the history of the  
13 MISO process, the benefits and the value that the  
14 portfolio brings, the way MISO quantifies those  
15 benefits and how the benefits outweigh the long term  
16 costs of the portfolio. All of those things are in  
17 there.

18           Section 3.3 of the application covers  
19 that, and you can see kind of the three bullet point  
20 things that we use to border that out, enhancing  
21 grid reliability in the upper midwest, as to how  
22 operating conditions become more variable,  
23 increasing grid efficiency as energy is transferred  
24 from where it's produced to where it's used, and  
25 that's in a lot of different directions.

1           That's one of the things that has changed  
2 about the way we use the grid over the years. We  
3 used to have a lot of one central station generators  
4 in place and a lot of lower demand in another place,  
5 and now that generation is more spread out and so  
6 are the users of that energy.

7           So this transmission facilitates the  
8 flexibility we need to move that power around the  
9 region and meet that growing demand for reliable  
10 clean energy in the upper midwest. So that's part  
11 of the portfolio need.

12           Also in the application, section 2.4 and  
13 2.5, we as the Applicant are stuck with, well,  
14 what's the project bring to our region and what does  
15 it do in this portfolio. So you'll see some of the  
16 ways we tried to quantify that in the application as  
17 well, including increasing more flexible renewable  
18 capabilities, as well as local grid reliability,  
19 resiliency, just creating more power flowing into  
20 our grid.

21           So all of that is there in the  
22 application and I'm available to talk about it later  
23 tonight after the meeting if you want.

24           But I have two more points to cover  
25 related to the need for the project. So if we can

1 go the next slide.

2           This one we covered in the application.  
3 So this project, and the one particular aspect of it  
4 that sort of gets into the history of the  
5 transmission system, transmission development in the  
6 area, and that is the 800 MVA limit. So we cover  
7 the history of that in the application. I just  
8 wanted to reiterate a little bit of it here.

9           The 800 MVA limit, so MVA is like an  
10 engineering word for just common power. The 800 MVA  
11 limit is a limit on how much power can flow through  
12 the Arrowhead substation at the end of this project  
13 and on into Wisconsin. And that was put in place  
14 when that substation was originally constructed, or  
15 permitted actually, in the early 2000s and it's a  
16 regulatory limit.

17           At the time the concern was over  
18 increased transfers of coal fired generation coming  
19 across from the Dakotas, across Minnesota and into  
20 Wisconsin, west to east, and we just kind of talked  
21 about how a lot of that changed. Even if you think  
22 about Minnesota Power and our journey over the last  
23 25 years, we go back to the early 2000s, we were at  
24 95 percent coal fired energy in our portfolio  
25 serving our customers. And as Drew said, now, the

1 versatility in serving our customers with over 50  
2 percent renewable energy and we are well ahead of  
3 that a lot of times these days, in terms of the  
4 amount of renewables that are being used to serve  
5 all the energy in our systems.

6           So times have changed and we're not the  
7 only one, times have changed all around us. So as  
8 we talk about the purpose of the MISO LRTP is to  
9 allow utilities throughout that large regional area  
10 to lean on each other as the energy portfolio  
11 changes, to support each for reliability, you need  
12 to remove barriers for regional transfers, you need  
13 transmission that enables it all. And so the reason  
14 that we're requesting removal of the 800 MVA limit  
15 as a part of this project is because the project,  
16 the purpose of the project is to increase regional  
17 transfers both to Wisconsin, from Wisconsin, north  
18 to south, Minnesota, along with more flexibility is  
19 what we're looking for.

20           So this project does that from an  
21 engineering perspective. It's not really possible  
22 to maintain the 800 MVA limit the way it's  
23 maintained today anymore after this project is  
24 completed. But just from a baseline purpose of the  
25 project, the 800 MVA limit is inconsistent with the

1 regional needs that are going to be needed by MISO  
2 for the project.

3           And then this segues into the next  
4 Tranche -- the last bullet point, while the 800 MVA  
5 limit, again, I just want to reiterate, it's about  
6 those regional transfers. It's not related to any  
7 local need. The 800 MVA limit actually has nothing  
8 to do with any local needs.

9           The next slide we'll just cover it.

10           There have been a lot of comments in the  
11 docket around the proposed Hermantown data center  
12 and all the things that are going on with that. We  
13 just want to make very clear, we're here tonight  
14 because the ISA project that we talked about is  
15 developed and approved by MISO, for regional  
16 reliability, studies beginning back in 2020, built  
17 on analysis that started before that, it's been  
18 going on for many years. In fact, this project, the  
19 ISA project as a concept has been around for over a  
20 decade.

21           Some of you may remember open house  
22 meetings that were hosted back in 2013, Jim and I  
23 were there for a project very much like this, and  
24 the need for it didn't materialize at that time, but  
25 it has today and it's been approved by MISO.

1           So this is a project that's been going on  
2 for a long time, like other projects that we've  
3 recently worked with the Commission on in this area,  
4 was proposed for grid reliability, independent of  
5 the needs of any individual customer, the data  
6 center. And to just put a really clear point on it,  
7 if there was no proposed data center in Hermantown,  
8 we would still be here tonight talking about the ISA  
9 project proposal.

10           MISO evaluated the regional needs of the  
11 transmission system, they didn't consider these data  
12 centers. They looked at how the way we produce and  
13 meet that energy change over the long haul without  
14 respect to any individual customers.

15           There is a separate proceeding, there is  
16 a lot of concerns with that proposed data center.  
17 That petition has been filed with the Commission.  
18 So that's really the place for that discussion to  
19 happen. And we just want to take the opportunity to  
20 clarify that upfront here.

21           Happy to talk more about it later tonight  
22 but I think that's what we have to say for now, and  
23 I can hand it back to the PUC -- or to Drew, I  
24 forgot about the other half of our presentation, the  
25 route.

1           MR. DREW JANKE: Thank you, Christian.  
2       So, yeah, we'll talk about the other half of the  
3       route permit aspect of the project.

4           So as part of that route permit  
5       application we did develop a proposed route, which  
6       is what you see up on the screen here. You know,  
7       from the Arrowhead substation to the St. Louis  
8       County substation and then up to the Iron Range  
9       substation.

10          The proposed route as a whole is about 92  
11       percent collocated with existing high voltage lines.  
12       So collocation in this instance means either  
13       adjacent to an existing high voltage land  
14       right-of-way or largely overtaking and expanding an  
15       existing high voltage land right-of-way.

16          The proposed route itself is broken down  
17       into three segments.

18          So segment one is highlighted in orange  
19       on the map above. So it runs from the Iron Range  
20       substation at the far northwest portion of the  
21       proposed route just outside of Grand Rapids and runs  
22       through a point just north of the St. Louis river,  
23       just east of Floodwood. And for that segment 1 our  
24       proposal is to collocate adjacent to an existing 230  
25       kilovolt transmission line right-of-way.

1           Segment 2 is highlighted in blue and that  
2 is from the St. Louis County substation up to the  
3 point of segment 1 just east of Floodwood there.  
4 For segment 2 our proposal is to overtake largely  
5 the 230 kilovolt right-of-way, but it would require  
6 an extension of about 20 feet just to accommodate  
7 for a 150 foot right-of-way for this ISA project.

8           And then segment 3 is from the St. Louis  
9 County substation to the Arrowhead substation, and  
10 that is being proposed as double circuit 345  
11 kilovolt.

12           Project timeline, so really 2025 was real  
13 heavy on the stakeholder engagement teams between  
14 interactions with federal and state agencies as well  
15 as public. We did host a couple of public open  
16 houses following our potential route variance, got  
17 some really great feedback from both of those.

18           This year, obviously we're heavy on the  
19 permitting sense and over the next couple years  
20 we'll continue with permitting, running with  
21 engineering, environmental surveys and in discussion  
22 with landowners, potential easement agreements, as  
23 well as continuing that public engagement piece, so  
24 we're not going anywhere.

25           Assuming all goes well, construction

1 would start in 2029 and the project is aimed to be  
2 in service by 2032.

3 So as Saarah mentioned at the beginning,  
4 we the Applicant, did prepare an environmental  
5 assessment as part of the route permit application  
6 process. And so just a level set here on what an  
7 environmental assessment is and isn't.

8 So what it does is describe the proposed  
9 project and any alternatives and also the impacts to  
10 both human and environmental resources, human  
11 environmental resources, and it lists strategies to  
12 either avoid, minimize, and if so there are impacts  
13 how do we mitigate for those impacts.

14 The environmental assessment itself does  
15 not advocate for or against the project.

16 As I mentioned, the environmental  
17 assessment itself looks at a wide variety -- thank  
18 you. So the environmental assessment looks at a  
19 wide variety of resources, both from an  
20 environmental impact standpoint, there's a whole  
21 list there, I won't read them verbatim, but gives  
22 you a sense of some of the resources that the  
23 environmental assessment evaluates.

24 We'll walk through a few resources at a  
25 high level here, starting with aesthetics and

1 recreation. So there are some potential impacts for  
2 both of these resources, primarily, you know, these  
3 new ISA structures are quite a bit taller, we  
4 discuss that within the environmental assessment,  
5 potential impacts, and how to mitigate for those  
6 impacts.

7           Public services and transportation and  
8 then land based economies. I'll point specifically  
9 to the land based economies, as part of this  
10 mitigation efforts to coordinate with the Minnesota  
11 Department of Agriculture and agricultural impact  
12 mitigation plan. So we have received that feedback  
13 from the Department of Agriculture and have filed an  
14 updated plan. We do have a copy of it here if folks  
15 are interested.

16           We do also look at, within the EA, at  
17 archaeological resources and water resources and  
18 impacts to those. For both of these resources, we  
19 coordinate pretty heavily with a few other agencies  
20 from the archeological resources standpoint. We  
21 coordinate early and often with the State Historic  
22 Preservation Office, along with interested Tribal  
23 Nations.

24           And then from the water resources  
25 standpoint, we will coordinate closely with the U.S.

1 Army Corps of Engineers at the federal level and at  
2 the state level we coordinate with both the  
3 Department of Natural Resources and the Minnesota  
4 Pollution Control Agency.

5 I'm going to get to my last slide here.

6 We have a lot of resources listed with  
7 the environmental assessment, so we looked at both  
8 wildlife and vegetation resources. Again, similar  
9 to land based economies resource section for  
10 vegetation. We do develop a vegetation management  
11 plan and undergo review by the State Working Group,  
12 so that is in process as we go through here.

13 Just a couple of slides before I hand it  
14 back to Saarah and Emily.

15 As I mentioned, 2025 was really heavy in  
16 stakeholder engagement process. We did launch a  
17 project website for the project in May of 2025.  
18 That's been updated a few times and will continue to  
19 be updated as we progress through the process here.  
20 We did have a couple rounds of open houses, lots of  
21 communications with Tribal Nations, local government  
22 units, local county board, and of course landowners,  
23 and a number of federal and state agencies.

24 Next slide.

25 So like I said, we want the stakeholder

1 engagement feedback to continue, so we do have a  
2 e-mail hotline as well as a phone number hotline.  
3 You can leave comments directly with the project  
4 team on our project website or via e-mail or the  
5 phone number in addition to the formal process.

6 Thank you.

7 MS. EMILY JOHNSON: Good evening,  
8 everyone. Can you hear me okay in the back?

9 My name is Emily Johnson. I'm an  
10 environmental review manager with the Public  
11 Utilities Commission.

12 We want to start out by just thanking you  
13 tonight for being here, because our staff relies on  
14 your participation and input to build a complete  
15 record for our Commission's decision making process.

16 Tonight I'll discuss the State's  
17 permitting process and the ways that you can provide  
18 input and inform that process.

19 When the Commission decides on a permit  
20 we consider the human and environmental impacts that  
21 a project will have and ways to reduce those  
22 impacts.

23 Impacts could include things like  
24 construction noise, aesthetic impacts from tree  
25 clearing or new infrastructure, wildlife habitat

1 fragmentation and so on.

2 Mitigation measures could include things  
3 like limiting construction to daylight hours,  
4 alternative routing, tree replacement plans and  
5 more.

6 The Commission applies standard and  
7 special permit conditions to address impacts and  
8 tracks compliance throughout the life of the project  
9 if it is permitted.

10 You can help by providing input about  
11 local unique characteristics, impacts and ways to  
12 reduce those impacts.

13 So our permitting process begins with a  
14 sample permit and it's the start of the process. It  
15 includes standard permit conditions that apply to  
16 every transmission project.

17 After the comment period concludes and we  
18 have collected some input from the local community,  
19 we use that input to develop a draft permit that  
20 will contain special permit conditions that are  
21 specific to the project being proposed.

22 It's important to note that a draft  
23 permit does not allow the Applicant to construct the  
24 project. It is just a starting point in our  
25 Commission's decision making process. And there

1 will be an opportunity to comment on the draft  
2 permit at a later point in the process, and we'll  
3 talk about that in a little bit.

4 Next slide.

5 So this is just a visual overview of what  
6 I just said. We start with a sample permit, same  
7 for every transmission project. We then develop the  
8 draft permit based on public input and then we'll  
9 receive more input on that draft permit, and then  
10 ultimately the Commission will make it's final  
11 decision on the final permit.

12 Next slide.

13 So by law applications for route permits  
14 must include an environmental assessment that  
15 contain information on human and environmental  
16 impacts and ways to mitigate those impacts. The EA  
17 is included as appendix E of the application. The  
18 application is available here tonight. It's also  
19 available at the local libraries. It is quite  
20 lengthy. It's also available online on our  
21 Minnesota Public Utilities web page for the project  
22 or the eDockets filing system.

23 We ask that you do take a look at that,  
24 the environmental assessment, and maybe if you just  
25 want to key in on certain sections that you are

1 concerned about, and then let us know through this  
2 comment period if you see anything that's missing.

3           So we want to know if there are any human  
4 and environmental impacts, unique characteristics to  
5 the local area, that are missing in the  
6 environmental assessment, and if there are any  
7 mitigation measures to address those impacts that  
8 you would like to see evaluated further.

9           The input that we receive on these topics  
10 will help the Commission determine whether an  
11 environmental assessment addendum is needed, and  
12 that is something that our staff would prepare.

13           Saarah mentioned earlier that this  
14 project is a combined route permit application and  
15 certificate of need application. Certificate of  
16 need applications and proceedings require our staff  
17 to prepare an environmental report.

18           An environmental report describes the  
19 proposed project and any system alternatives that  
20 will still meet the stated need of the project.  
21 Alternatives can include things like size, type and  
22 timing. Examples of size might be different  
23 voltages or lengths. Examples of type might include  
24 different structure types and configurations,  
25 alternative routing or different non transmission

1 facilities. Timing can mean like the project should  
2 happen sooner, later or not at all.

3 Next slide.

4 So this is just a summary of the topics  
5 for comment that we're looking for at this part of  
6 the process.

7 Are there any potential human and  
8 environmental impacts, unique local characteristics  
9 or mitigation measures, including route alternatives  
10 for the proposed that need further development and  
11 an environmental assessment addendum?

12 Are there practical methods to minimize,  
13 mitigate or avoid potential impacts that the  
14 Commission should include as conditions in the draft  
15 permit?

16 And, are there other ways to meet the  
17 stated need of the project instead of the proposed  
18 transmission line, and if so what alternatives  
19 should be studied?

20 So what happens next. Based on the  
21 information in the record, including your comments  
22 that you provide during this comment period, the  
23 Commission will make three preliminary  
24 determinations.

25 The first, is an environmental assessment

1 addendum necessary?

2           The second, what conditions should the  
3 Commission include in a draft permit?

4           And the third, what alternatives to the  
5 project should be included in the scope of the  
6 environmental report?

7           So this slide outlines the tentative  
8 review schedule for this project and key milestones  
9 in the State's permit review process.

10           The rows highlighted in blue represent  
11 opportunities for public comments. So as you can  
12 see, this is not the only opportunity to provide  
13 input.

14           The star represents where we are  
15 currently at in the process.

16           The Applicant -- the Commission accepted  
17 the application as complete on January 20th, which  
18 officially started the review process.

19           This public meeting that we're hosting  
20 this week is just the first step of that process  
21 really. So we are holding these public meetings and  
22 the comment period will remain open through April  
23 23rd.

24           In June or July, and based on public  
25 input, the Commission will issue a draft route

1 permit and will also make those other determinations  
2 that we just talked about. So they'll decide  
3 whether an environmental assessment addendum is  
4 needed and determine the scope of the environmental  
5 report.

6 We expect that the draft permit and  
7 environmental report will be issued in fall of 2026,  
8 along with an EA addendum if it is needed.

9 Public hearings are expected to be held  
10 in the fall, along with a second comment period.  
11 After the hearing comment period closes a public  
12 hearing report will be filed and available to the  
13 public.

14 The Commission will consider the entire  
15 record before making a decision on both the  
16 certificate of need and the route permit, which will  
17 likely occur in fall or winter of 2026. Again, this  
18 is a tentative schedule.

19 That permit decision will be made in an  
20 open public meeting that you are all welcome to  
21 attend.

22 So how you can comment. You can provide  
23 verbal comments at tonight's meeting, or the meeting  
24 on Thursday as well, that will be virtual. You can  
25 complete and submit a comment sheet, they're

1 available in the back of the room, they look like  
2 this, I think a lot of you got them when you walked  
3 in. You can comment online at the link provided in  
4 the slides here. There's also a copy of the slides  
5 in the back of the room as well. You can e-mail me  
6 directly or send me physical mail, and my contact  
7 card, as well as Saarah's are available at the back  
8 of the room. We encourage you to reach out to us at  
9 any time if you have any questions about the  
10 permitting process. That is our job, so that's why  
11 we're here and we're happy to help you.

12           The comment period will end April 23rd at  
13 4:30 p.m.

14           Next slide.

15           Before we open it up for public comments  
16 here, I just want to make some notes about  
17 commenting etiquette. We will welcome one speaker  
18 at a time. I'm going to start with a list of people  
19 that signed up and then we'll open it up to anyone  
20 else who wants to speak.

21           When you come up to the podium we ask  
22 that you state and spell your name for the court  
23 reporter. We ask that you limit comments to just a  
24 few minutes to start. My coworker John over here  
25 will politely let you know when we get to about 30

1 seconds left of a three minute timeline. So as long  
2 as we can all agree on that, please wrap up your  
3 comments. Once everyone has had a chance to speak  
4 we will open it up again and you can come back up if  
5 you want to speak again.

6 And then I will just say that this is an  
7 opportunity for everybody to be heard, so I will  
8 personally make sure we move through speakers fairly  
9 and respectfully, but if someone is speaking at the  
10 mike, I will just ask that you wait until it's your  
11 turn to speak and you will have a chance.

12 If you have any verbal comments to make,  
13 Saarah mentioned this earlier, but you don't feel  
14 comfortable in this large group setting, there is a  
15 court reporter in a smaller room in the back of the  
16 building who can transcribe your comments. And  
17 every comment received here tonight, as well as  
18 everything we just said will be in the record in the  
19 e Dockets filed for this project, and it's all being  
20 transcribed by our court reporter.

21 So I will open it up for comments and we  
22 will start with our list here. The first name I  
23 have is Bianca Rose Treasure. Would you like to  
24 speak?

25 MS. BIANCA TREASURE: B-i-a-n-c-a

1 T-r-e-a-s-u-r-e.

2 A little bit about me, I live along  
3 Highway 8, where this is going to go through. I'm a  
4 U.S. Army vet, contribution technician. I'm a stay  
5 at home mom, and my son and I are always there.

6 So I guess the way that I consider the  
7 impacts our way of life is that the World Health  
8 Organization says that it is recommended to live 700  
9 to 1,000 feet from transmission line exposure, and  
10 our house is exactly 200 feet from where the lines  
11 are going to be.

12 So how that worries me is the safety and  
13 the effects long term, and not just myself, but my  
14 husband and our child. That's him.

15 Sorry, I've never spoke in front of this  
16 many people before.

17 Alternatively, we'd like to see if we  
18 could have the power lines, because it's right in  
19 the middle of our land, we have 20 acres and it's 20  
20 feet from our house, and there's about 15 more acres  
21 behind us. It makes me very uncomfotable with it  
22 literally right outside our door in our backyard.  
23 So we wanted to be able to see if it could be put  
24 along Highway 2 instead of through rural  
25 residential.

1           I guess that's all I really have. It  
2 would really affect our way of life and the way we  
3 utilize our land. We use that land for foraging, we  
4 have animals, we have deer that come through, we  
5 have turkeys that come through. It's also a food  
6 source, we have over 50 sub species of mushrooms in  
7 our backyard that we actually see year round.

8           We have over 20 different herbs, native  
9 American medicines that I would like to be able to  
10 teach my son about, and I feel as if putting these  
11 transmission lines right in our backyard that we  
12 utilize throughout the year, and we actually do use  
13 with this ecosystem, not just with animals, it would  
14 affect our food and just our way of life and the way  
15 we've established things. We just moved in to our  
16 home and it's just really awful to have this thing  
17 happen out of no where.

18           I think that's all I've got.

19           MS. EMILY JOHNSON: Thank you for that  
20 comment, it will be in the record for consideration.

21           Rebecca Gilbertson is our next speaker.  
22 Come on up. Just a reminder to state and spell your  
23 name, thank you, and speak up. It looks like the  
24 mike is a little low, so speak directly into the  
25 mike.

1 MS. REBECCA GILBERTSON: Is this all  
2 right? My name is Rebecca Gilbertson, that is  
3 R-e-b-e-c-c-a, Gilbertson is spelled  
4 G-i-l-b-e-r-t-s-o-n.

5 Oftentimes there is a disconnect between  
6 the vision that we sought and what's actually  
7 happening on the ground. I actually live a half a  
8 mile from the proposed hyper data center. I  
9 recognize that that's not what we're here tonight to  
10 discuss. However, citizens like myself think that  
11 this project cannot be separated from that.

12 When I accessed the docket in November,  
13 so at that point it was a draft docket, I was not  
14 expecting to find anything, and indeed what I did  
15 find was an ex parte communication in which the  
16 Minnesota Department of Commerce responded to a  
17 paragraph about the need justification, and that  
18 included, While the grid is extremely stable, the  
19 Applicant was concerned about wildfire, sabotage and  
20 weather. And, again, remember I was not looking for  
21 anything. I was just a curious citizen. And the  
22 Department of Commerce, while this is a bold  
23 statement, it encouraged the Applicant to be  
24 specific to the midwest at least.

25 I'll note that the final document does

1 not include current data, rather it is using  
2 projected data and those are trade secret. And I  
3 think that citizens are done with trade secrets at  
4 this point in time.

5 So we need to know what the actual data  
6 are that they docketed as 67 miles of new high voltage  
7 transmission lines. We've seen part of this  
8 already, that was already approved just off Cliff  
9 Road.

10 16 individuals recently traveled to the  
11 Minnesota State Capitol. We met with Senator  
12 Frenz, who is the chair of the senate energy  
13 committee. This individual was dismissive to our  
14 concerns and to our group. He let us know that the  
15 Public Utilities Commission was not going to issue a  
16 permit unless it was clear that neighborhoods  
17 weren't going to be heard, and I actually have that  
18 in writing and it was re-referenced in another  
19 conversation.

20 Folks, this is an unprecedented moment in  
21 the State's history possibly, and I would like to  
22 ask the Commission, if you are going to continue to  
23 allow what is known as a Blitzkrieg, and that is a  
24 German word. That German words means a sudden,  
25 coordinated effort meant to paralyze citizens

1 resistance, and I can tell you as an individual who  
2 is a half mile from this proposed hyper scale data  
3 center, that it is absolutely what we are  
4 experiencing. So I thank the Commission for their  
5 patience. We are enormously frustrated by this  
6 process. Thank you.

7 MS. EMILY JOHNSON: Thank you for your  
8 comments. I understand that there's a lot of  
9 frustrations out there. I do want to address one  
10 thing about trade secret information. Usually trade  
11 secret information can be filed as trade secret for  
12 a variety of reasons, and it's not to necessarily  
13 hide information from the public. It can just be  
14 sensitive information that the Applicant requests to  
15 be filed as trade secret. It doesn't necessarily  
16 mean that we're hiding anything from you. I just  
17 want to clarify that.

18 Our next speaker is, let's see here,  
19 Joanne Bates, would you like to speak, there's a  
20 question mark. No.

21 Tom Bates is next.

22 MR. TOM BATES: By the way, that young  
23 lady that was up here, she done good. She did.

24 My name is complex and long, it's T-o-m  
25 B-a-t-e-s, and I can go slower if you'd like.

1 I'm going to throw an idea for you, okay,  
2 I want you to take it seriously. I want you to go  
3 home, get your pencil out, all right, and do a rough  
4 sketch of this thing, otherwise I will and I'll come  
5 see you. Why not -- where does this line end, up in  
6 Virginia? Where does it end? Hurry up, I've only  
7 got three minutes, where does it end?

8 MR. CHRISTIAN WINTER: The line ends at  
9 the Arrowhead substation.

10 MR. TOM BATES: Oh, good, grief. Where  
11 is that?

12 MR. CHRISTIAN WINTER: In Hermantown.

13 MR. TOM BATES: And the other end?

14 MR. CHRISTIAN WINTER: At the Iron Range  
15 substation, near Grand Rapids.

16 MR. TOM BATES: Near Grand Rapids?

17 MR. CHRISTIAN WINTER: Yes.

18 MR. TOM BATES: So here's the deal, what  
19 if, since there's two, what, 345 KVA lines coming  
20 out from there, am I thinking straight, okay.  
21 Here's what I've got in mind, they've got it glued  
22 in. How many union guys here, quick raise your  
23 hand. One.

24 Anyway, what I'm proposing is this, why  
25 don't you put in, instead of building this huge

1 transmission line, spending all the money on  
2 aluminum and towers and the agitation of setting  
3 them and the whole thing, why don't you put in a  
4 solar farm and -- a solar farm, a wind farm and a  
5 battery farm, and get a bunch of union electricians  
6 and construction workers to build it. It will be  
7 there for 50 years a hundred years, whatever, and it  
8 will have people working, it will provide jobs, and  
9 you won't have the worry about the power line with  
10 the wind and the icing and all that stuff. Still  
11 have to worry about the wind tunnels, but what do  
12 you think? I mean, it's an idea, right? There's  
13 land, there's land there. Seven miles north of  
14 Grand Rapids there's a mine.

15 30 seconds. 30 seconds my foot. I'm  
16 done. That's all I really had on my mind. But then  
17 you could scrap the whole long power line and build  
18 something, which is a whole lot more appealing to a  
19 whole lot of people I know, because they like to  
20 build things, right.

21 MS. EMILY JOHNSON: Thank you for your  
22 comment, Tom, and that is something we can  
23 definitely look into in the environmental report.  
24 Thank you.

25 The next speaker I have is Emma Richtman.

1 Just a reminder to state and spell your name.

2 MS. EMMA RICHTMAN: Emma Richtman,  
3 E-m-m-a R-i-c-h-t-m-a-n.

4 I don't really have any prepared  
5 comments. I thought I did and then I just don't  
6 feel informed enough yet, so I will postpone those  
7 for another meeting or written comment.

8 But I guess what I can say, as a resident  
9 of Hermantown and someone who lives 2.5 miles from  
10 this proposed data center and a homeowner that was  
11 on the Duluth Loop Reliability Project, there's a  
12 lost of mistrust I have with Minnesota Power,  
13 especially with the new private equity acquisition.

14 It's very difficult to have faith in  
15 what's being presented to me and my neighbors and  
16 our community, because it doesn't feel like it's in  
17 the interest of the small folk. It feels like it's  
18 in the interest to serve higher tech and corporate  
19 greed, that if you build a data center you get a  
20 large customer and they fill your pockets. So I  
21 don't know.

22 I just want that to be stated for the  
23 record. I know it's not constructive to this  
24 particular project in this moment, but I just feel  
25 like it's important to note that it doesn't feel

1 like this is for me or for the residents of  
2 Minnesota, and that's not to be disrespectful of the  
3 work folks here at this table have been doing. But  
4 we're in a new era of unprecedented development and  
5 unprecedented power needs. And it just feels a  
6 little bit wild west, in terms of let's get things  
7 built and let's get power to them.

8           Yeah, I guess I'm going to leave it there  
9 because I'm just going to keep rambling. Thank you.

10           MS. EMILY JOHNSON: Thank you for that.  
11 We will open it to anyone who would like to come  
12 forward. Again, we'll take one person at a time. I  
13 see you, yes, in the red. Thank you. And just  
14 state and spell your name when you get up here.

15           MS. CLARISSA EK: Good evening.

16 Clarissa, C-l-a-r-i-s-s-a, last name is Ek, E-k.

17           My home is located at 3505 Solway Road in  
18 Hermantown. This is has just been verified by the  
19 people over there that that is within a quarter of a  
20 mile of this project, this is in my back yard.

21           My property is, again, located within a  
22 quarter of a mile of this project, I've lived on  
23 this propriety with my husband and children for 13  
24 years.

25           My comments are two-fold. As an affected

1 resident of this project and the Hermantown hyper  
2 scale data center, we've been repeatedly told, like  
3 we've been tonight, now is not the time to talk  
4 about that. This isn't about the data center. It's  
5 about something else. And despite that we find out  
6 through the course of time that it absolutely is  
7 about the data center. We're not told that. We're  
8 not told that by the people that we're supposed to  
9 trust at all. We've had to find that through  
10 Minnesota government data practices requests.

11 We've been told that's not a data center  
12 project. This is not about a data center. The  
13 decision is not to approve any projects. This is  
14 just a land use decision. This is just a Public  
15 Utility decision and we're not approving any  
16 specific project and this isn't about any specific  
17 project.

18 Again, we repeatedly find out that that  
19 is the case. This is actually for a specific  
20 project, it always has been. Every single one of  
21 the decisions are made to approve and to pave the  
22 way for a hyper scale data center that has the land  
23 footprint of the U.S. Bank Stadium in the middle of  
24 a several hundred year old acres forest, trout  
25 streams and family homes.

1           To support the comments, I encourage you  
2 to review the Hermantown City Council meeting in  
3 April of 2025, it's on YouTube for anybody to watch,  
4 where residents were told specifically by Mayor  
5 Wayne Boucher that, no, this is not a data center.  
6 Yet we have e-mail exchanges, again, that we had to  
7 get through forcing that information through  
8 Minnesota government data practices, that Minnesota  
9 Power brought the hyper scale data center project to  
10 the City of Hermantown as early as 2024. I do not  
11 think the timing of this project or the hyper scale  
12 data center is coincidental.

13           I will also note that Minnesota Power's  
14 response to the CURE's petition for reconsideration  
15 of the sale of Minnesota Power's private equity  
16 firm, which is Black Rock, based on revelations that  
17 were not disclosed, that they were in fact in talks  
18 regarding the hyper scale data center, Minnesota  
19 Power's response, this isn't the time to have this  
20 discussion. If a large project like a data center  
21 were to move forward it would come before the  
22 Commission in a separate proceeding and the  
23 Commission agreed. Yet here we are, before the  
24 Commission, and again being told this is not about  
25 the data center, we're not talking about that.

1 I appreciate the time. It's time to be  
2 honest. It's time to be honest with the people that  
3 are going to have to live with these projects.  
4 Please. Thank you.

5 MS. EMILY JOHNSON: Thank you for that  
6 comment. While we are accepting comments on this  
7 docket for the transmission line, there is a  
8 separate process going on in Hermantown, many of you  
9 are aware of, to comment on, and they have an open  
10 comment period until April 30th.

11 We do have a petition for an electric  
12 service agreement that was filed by Minnesota Power,  
13 that is under Docket 26-159. We have a fact sheet  
14 available in the back of the room, and that project  
15 will have a comment period associated with it, and  
16 we are currently accepting comments on that outside  
17 of the comment period if you'd like to as well  
18 comment on that docket, so I do encourage you to do  
19 that.

20 Anyone else that would like to come up  
21 and make a comment? Yes, please. Please state and  
22 spell your name when you get up here. Thank you.

23 MS. ALLISON HAFFTEN: Good evening. My  
24 name is Allison Hafften, A-l-l-i-s-o-n  
25 H-a-f-f-t-e-n.

1 I want to begin just by asking two  
2 questions of Minnesota Power, if they can elaborate  
3 on this.

4 Regarding this project, you mentioned  
5 you're going this is over a double circuit 345  
6 kilovolt lines. You do not mention that for the  
7 third segment, can you please elaborate on that.

8 MR. CHRISTIAN WINTER: Sure. So segment  
9 3 connecting the St. Louis County substation to the  
10 Arrowhead substation, double circuit, 345 kV  
11 transmission lines on the same structures.

12 Segment 1 and 2 consist of a single  
13 circuit 345 kV transmission lines. In segment 2  
14 that's going to be on the same structures with  
15 different transmission lines, different voltage,  
16 replacing the existing transmission lines. So that  
17 will be on the same structures, and segment 1, it  
18 will be on its own structures.

19 MS. ALLISON HAFFTEN: Thank you. Another  
20 question related to the HVDC modernization project,  
21 can you clarify if that project was MISO approved  
22 with their transformers too.

23 MR. CHRISTIAN WINTER: Yeah, the HVDC  
24 modernization project is not part of the MISO  
25 transmission plan.

1 MS. ALLISON HAFFTEN: Thank you. So I  
2 guess I would like to just share my opinion  
3 regarding the certificate of need and the needs  
4 outlined by Minnesota Power in that application, I  
5 don't feel provide justification for this  
6 transmission line.

7 As we've heard tonight in the  
8 presentation, they talk a lot about MISO, grid  
9 reliability, greater midwest reliability. The  
10 certificate need speaks only to the local area. It  
11 talks about population growth in St. Louis County  
12 and Arrowhead County, of which is stagnant at 2.3  
13 percent growth by 2032. I think that's pretty low  
14 growth, really immaterial in the grand scheme of  
15 things. Actually Itasca County and St. Louis County  
16 have maintained stagnant or declining populations in  
17 the last ten years.

18 Grid reliability and increased demand was  
19 also the same argument for the HVDC modernization  
20 substation project. So, again, we're hearing that  
21 same requirement. They also speak about wildfire,  
22 weather, sabotage. The weather and sabotage is not  
23 backed up at all. We did request additional  
24 justification for that, they have not provided that.  
25 The wildfire risk in Minnesota is actually fairly

1 low, for the entire United States. In the  
2 certificate of need they claim that is high, when  
3 you look at the eastern United States. This project  
4 is not the eastern United States, so I don't think  
5 that is relevant.

6 Also on the HVDC modernization project  
7 they again argued -- or requested for the 800 MVA  
8 being taken away that was declined. If there is  
9 such a need in this area they would not need that  
10 limit taken away. They're selling power to  
11 Wisconsin and other states, meanwhile we are paying  
12 the price and Minnesota Power is gaining the revenue  
13 from that. Thank you.

14 MS. EMILY JOHNSON: Thank you. If you  
15 would like to come back up at the end you can.

16 MS. ALLISON HAFFTEN: I would.

17 MS. EMILY JOHNSON: Anybody else.

18 MS. KATHY PETERSON: My name is Kathy,  
19 K-a-t-h-y, Peterson, P-e-t-e-r-s-o-n.

20 Thank you for this opportunity to speak.  
21 I am not going to speak about any statistics or any  
22 technology. I'm speaking from my heart as a person  
23 who lives in Duluth, lakeside.

24 I have been watching the process of what  
25 Minnesota Power and the data center movement has

1 been doing to the people in Hermantown, most of whom  
2 I've never met. But I've been seeing them at these  
3 meetings, and my heart is aching for them, including  
4 that little boy who now lives in a home where  
5 there's power poles and wires ten feet from his  
6 house.

7 As a person who is about to be 80 years  
8 old and I've lived in many homes, I always knew that  
9 I never wanted to live where there were power lines.

10 Think of the children who live in that  
11 kind of situation. I cannot state this for a fact,  
12 because I don't have any research in front of me,  
13 but there are problems with living that close to  
14 power lines. That little boy who is out there,  
15 whose mom spoke, I cannot stand here and think about  
16 what is happening in his world, this tiny child.  
17 What are those parents going to do to protect him?

18 I believe, because I wish to believe,  
19 that all of our actions need to be based on love. I  
20 understand that is not a business platform, but I  
21 really think that this is the time right now in the  
22 history of our world, that people have to stand up  
23 and think about love and not money, greed,  
24 corruption, power.

25 So my plea to you all is to think about

1 all of the potential human and environmental  
2 impacts. That lake is why most of us live here. I  
3 don't want anybody messing with our lake any more  
4 than they already have. I thank you for your  
5 presence here this evening.

6 MS. EMILY JOHNSON: Thank you for  
7 speaking and sharing that.

8 Anybody else? Yes, in the sweatshirt.  
9 Please state and spell your name.

10 MR. DEAN WARGIN: Dean Wargin, D-e-a-n  
11 W-a-r-g-i-n.

12 So, first of all, I'm not for this  
13 project, but if it does fly is there going to be  
14 something like in writing or just, you know, this  
15 mistrust thing, once that line does go through, for  
16 the majority of the line there's two existing lines  
17 now, and I have heard that once that third one goes  
18 through one of the other ones will be coming down.  
19 I just don't want to see if it does go through that  
20 all of a sudden we change our mind and we're going  
21 to keep that for some reason, because now all of a  
22 sudden you have a lot of people's property taken up.

23 So I was just curious if that was  
24 something that would be in writing, that once this  
25 third line is completed line one or two will be

1 coming down, because that could affect a lot of  
2 people. All of a sudden you have three structures  
3 through your property versus two.

4 MS. EMILY JOHNSON: Thank you for that  
5 question.

6 As far as the State's permitting process  
7 goes, whatever -- if the project was permitted  
8 whatever is in that final permit decision is the  
9 only thing that would be allowed to take place in  
10 the project. So, yes, it would have to be in  
11 writing in the permitting decision. Does that make  
12 sense?

13 Anybody else? Yes, state and spell your  
14 name, please. Thank you.

15 MR. LYNN BRADFORD: Good evening.  
16 L-y-n-n B-r-a-d-f-o-r-d.

17 Thank you for coming to Duluth. I'm here  
18 on behalf of myself and my neighbors. I want to  
19 echo what Clarissa Ek had to say and I would like to  
20 -- her comments to be included in my statement here  
21 today.

22 I'm curious, has anybody on the  
23 Commission or staff signed on to NDAs, that you're  
24 aware of?

25 MS. EMILY JOHNSON: No, we absolutely do

1 not sign NDAs.

2 MR. LYNN BRADFORD: Well, that's good.

3 I currently live at 3525 Solway Road.

4 I'm 1,300 feet away from the current substation

5 that's on the midway side of the Solway Road.

6 They're building a new substation to the  
7 west of that, which will be quite a bit larger. The  
8 problem with the current substation is that it emits  
9 a low volume or a low decibel hum constantly, day  
10 and night.

11 I've lived at this location for 40 years  
12 and I've listened to this hum -- anyway. I've asked  
13 MP and L on three separate occasions to do a sound  
14 study. They could do it on my property, they can,  
15 you know, I've never heard back from them on any one  
16 of my requests for that.

17 The new substation is going to be larger.  
18 Now, what kind of volume of sound is that going to  
19 emit? It's going to be at a higher elevation. It's  
20 going to have less woodland to abate that sound, and  
21 it's going to be similarly close to my property.

22 I hope the Commission takes a look at  
23 that, and I would hope that MP and L would get ahold  
24 of me. I've been waiting almost 15 years for a  
25 response. I don't see why it should have to go to

1 litigation in order to try to solve an issue that  
2 may be easily solvable. I thank you for your time.

3 MS. EMILY JOHNSON: Thank you very much  
4 for your input. That is certainly something we can  
5 consider in our special permit conditions for the  
6 draft permit. Thank you.

7 Anybody else that would like to come up  
8 and speak, who hasn't spoken yet. Yes, thank you.  
9 Please state and spell your name.

10 MR. ERIC ENBERG: My name is Eric Enberg,  
11 E-r-i-c E-n-b-e-r-g.

12 I'm rather concerned about the process  
13 that is going on with this project. First of all,  
14 MISO is not the word of God. No, you know, stone  
15 tablets have been hurled down from the heavens  
16 smoldering on the ground that said, oh, MISO told  
17 you to do.

18 What is MISO? MISO is a bunch of  
19 economically interested parties that generate power,  
20 et cetera, and who have stated publicly that their  
21 preferred way of generating electricity is through  
22 national gas plants. And this is where the process  
23 really gets to be a problem. It's private. If you  
24 look at the maps, the maps are cleverly crossed. To  
25 the west is the Boswell plant, which in a different

1 docket 25-127 is going to be the home of several  
2 units being turned into gas plants, and then a 1  
3 billion dollar gas plant is supposed to be put on  
4 the same site, that is what is proposed.

5 All of this seems rather innocuous that  
6 it's connecting a proposed 1 billion dollar gas  
7 plant to a data center, but you don't see it because  
8 to the east, the place where the data center is  
9 supposed to be, is not shown. And this observation  
10 really serves to allow for all ratepayers to pay for  
11 this infrastructure instead of the way Minnesota law  
12 is now -- in the past, which demands that data  
13 centers pay for their own infrastructure. By doing  
14 it this way everybody has to go in and pay for the  
15 data center's infrastructure and that is going to be  
16 extraordinarily expensive. Thank you.

17 MS. EMILY JOHNSON: Do you want to say  
18 anything? No. Thank you.

19 Anybody else who hasn't spoken yet?  
20 Please state and spell your name.

21 MS. KATHRYN MILUN: Hi, I'm Kathryn  
22 Milun, K-a-t-h-r-y-n M-i-l-u-n.

23 I'm a professor of social scientist at  
24 the University of Minnesota Duluth and I teach  
25 energy democracy. I teach an adjustive studies

1 program. My students and I have been studying the  
2 process here for the last several years.

3 All of the things that have been said  
4 about the deceit that's happened for this community  
5 surrounding this line and this data center, we've  
6 been studying and watching. And so I have a very  
7 short comment just to say to all of you on the  
8 Commission.

9 My comment is that we need to restore  
10 trust in our government regulators. We need for you  
11 to act in the public interests for the people who  
12 live here. Your decisions in this process are both  
13 technical and ethical. It's possible that things  
14 have been separated out in terms of technicality, so  
15 that you're not able to make the right ethical  
16 decision.

17 But, again, I want to say that in this  
18 country we need to restore social trust in our  
19 regulators, and this is a test for you and for all  
20 of us here talking to you here now to make sure that  
21 that happens. Thank you very much for coming.

22 MS. EMILY JOHNSON: Thank you. Anybody  
23 else who hasn't spoken yet? You've spoken. Anybody  
24 else before we open it up again for a second round?  
25 Yes.

1           MR. CASEY MODICH: My name is Casey  
2 Modich, C-a-s-e-y M-o-d-i-c-h.

3           My wife and I have submitted comments to  
4 your online comment, and I just wanted to come up  
5 and take this opportunity. Thanks for being here.

6           We are impacted. This runs right next to  
7 our house. We're, you know, very much in the same  
8 situation as Ms. Treasure who spoke earlier. The  
9 current power line runs through our ten acres.  
10 We've built in the current easement setbacks with  
11 our buildings, our home. I've gone to open houses  
12 that you guys at Minnesota Power has come and done  
13 at our town hall. I've done the comments there and  
14 shared our concern with this project and where it  
15 runs, what it does to us.

16           That appears to have not mattered because  
17 the proposal does still go right where it's easiest  
18 for you to place it. If it goes through we lose 20  
19 feet. 20 feet to us are the trees that buffer us  
20 right now from the current power line. We would now  
21 have this new power line that is twice as tall, with  
22 no trees to block us from it. And I would just, you  
23 know, I'm changing my plea for please don't do this,  
24 from them to you.

25           I know that there's alternative routes.

1 There's other ways that this can run. It doesn't  
2 have to go next to our house and affect us, my  
3 family and my neighbor. This runs right between two  
4 homes, and, you know, I'm speaking for my neighbor  
5 as well, this affects them, the buildings that they  
6 have, their trees, ours, our gardens, our orchards,  
7 all the hard work, everything we've done to our  
8 property.

9 Just ask yourself if you'd want this next  
10 to your house, over your heads. If there's another  
11 way to do it I ask that you do that. Thanks.

12 MS. EMILY JOHNSON: Thank you, and I have  
13 seen your comments and I would love to connect with  
14 you after this meeting to discuss more about how we  
15 can address some of your concerns. Thanks.

16 Anybody else who hasn't spoken yet? Yes,  
17 absolutely come on up. State and spell your name,  
18 please.

19 MS. KRISTI MODICH: Kristi Modich,  
20 K-r-i-s-t-i M-o-d-i-c-h.

21 So one thing that makes me think of is I  
22 work in the mental health profession. I don't ever  
23 see mental health effects on this -- can you hear me  
24 okay? I don't ever see and hear statements like how  
25 this is affecting people's mental health.

1           Just for a little purview into my life.  
2 I found out about this project one month before my  
3 mom died. So I was at the town hall sobbing, you  
4 know, thinking about how my home is my sanctuary and  
5 how we were going to lose that. So there's that.

6           We, you know, invested in this property  
7 with not a ton of money. I feel like a lot of this  
8 stuff is going through, you know, it's not like  
9 affecting everybody like it's affecting the lake  
10 property country. We didn't have a lot of money,  
11 but we wanted to be sustainable and like do  
12 everything we could for the environment. We have  
13 trees. They told us like, oh, you can plant trees  
14 closer. Well, I watched our orchard grow, how is  
15 that supposed to come and everything else, we've  
16 dealt with all these other things.

17           So I can tell you like I'm middle aged  
18 now, this all started when I was 20. To get those  
19 trees to like block that, maybe when I'm old and  
20 gray. We don't tell our kids where we're going,  
21 because my kids are going to be devastated. They  
22 love their home. And, you know, it might just be  
23 something that we have to look at, and like we've  
24 been told by your consultants that this is the pinch  
25 point, and the entire point is our home. So we

1 haven't been able to tell our kids where we're  
2 coming, because we don't want to like -- them to  
3 feel the impact of this until we have to be like,  
4 okay, you know, this is happening. So we're like  
5 protecting while also trying to guard our own mental  
6 health. And I understand progress and that. But,  
7 yeah, even if we were to sell our house now, like to  
8 try to negate all this, we are already losing. This  
9 project is knowledgeable now. So all this like work  
10 we've put in and time we've put in. Yeah. I stand  
11 up for other people's mental health all day.

12 MS. EMILY JOHNSON: Thank you for that.  
13 Again, I would really like to touch base with you  
14 after the meeting, if you have time to stick around.

15 Anybody else who hasn't spoken yet? Yes.  
16 State and spell your name please.

17 MS. AMY MASON: Good evening, my name is  
18 Amy Mason, A-m-y M-a-s-o-n, and I actually really  
19 did not wish to speak tonight.

20 But I do have a concern about the  
21 transmission line project, and I don't believe that  
22 we can discuss this transmission line project  
23 without discussing the data center.

24 In front of me, I'm looking at the  
25 facility service agreement and construction

1 agreement between Allete Minnesota Power and  
2 Harmony, and when I look at this I see these  
3 transmission line projects scattered all throughout  
4 this agreement.

5 So to say that we cannot have this  
6 conversation about a data center at the same time  
7 we're discussing the transmission project, I think  
8 is really disingenuous.

9 And I think my bigger concern while we're  
10 having this conversation about transmission lines  
11 is, and I believe that we are working on that, I  
12 believe the Public Utility Commission is working on  
13 a rate structure to ensure that large load customers  
14 pay for their interconnection and their costs, and I  
15 want to make sure that that gets done. Because I've  
16 looked at different policies, I've got a policy  
17 brief here by the union of concern and it talks  
18 about different transmission projects and the costs  
19 that are being passed over to customers.

20 So one of the examples, and I apologize  
21 that I'm flipping through this, like I said, I did  
22 not wish to speak, but I can't find what I'm looking  
23 for.

24 From 2022 through 2024 utility companies  
25 initiated over 150 local transmission projects in

1 Illinois, Maryland, New Jersey, Ohio, Pennsylvania,  
2 Virginia and West Virginia. These projects were  
3 needed only to connect data centers. So when I'm  
4 talking about the transmission line project and I'm  
5 talking about what got file first, and I see this  
6 tied to that data center project, what I see is the  
7 potential for this. And what this says is these  
8 projects were needed only to connect data centers to  
9 transmission expansions that cost consumers 5  
10 billion thus far including over 400 billion in 2024.  
11 And I do not want to see that happen in the state of  
12 Minnesota for those customers that are currently  
13 being served by Minnesota Power. Thank you.

14 MS. EMILY JOHNSON: Thank you.

15 Please state and spell your name.

16 MS. JACKIE DOLENTE: My name is Jackie  
17 Dolente, J-a-c-k-i-e D-o-l-e-n-t-e.

18 I am horrible at speaking, so please  
19 forgive me. I had my remarks and then they changed  
20 drastically. I know tonight we're talking about  
21 transmission versus generation, but I feel this is a  
22 little bit of a silo because of the clean energy  
23 mandate that we have for Minnesota.

24 So they're asking to remove the 800 MVA  
25 limit. They say in their slide that the proposed

1 and justified support grid reliability independently  
2 of the need of any individual customer or data  
3 center. Now that we know a data center is coming  
4 in, or they're trying to come in, I think it's  
5 short-sighted to not have that be part of the  
6 conversation.

7 Minnesota Power is now owned by Black  
8 Rock, which owns 7 percent of Google, which is the  
9 hyper scale data center owner.

10 So I just wanted to mention that this  
11 feels very, very disjointed. We're looking at one  
12 thing and we need to be looking at like 955 things.  
13 We've got blinders and we're not paying attention to  
14 what is going on around us. This is one piece of a  
15 very big puzzle.

16 And if the hyper scale data center does  
17 go in they're going to benefit from this and we are  
18 paying for it, is my understanding. Minnesota Power  
19 is paying for a percentage of it, but the rest is  
20 going to be passed on to us as consumers. Thank  
21 you.

22 MS. EMILY JOHNSON: Thank you.

23 Anybody else who would like to comment  
24 before we allow people a second chance? Yes,  
25 please. State and spell your name. Thank you.

1 MS. MEGAN ELLING: Hi, I'm Megan Elling,  
2 M-e-g-a-n E-l-l-i-n-g, and I was not expecting to  
3 speak, so my comments might be obstructed.

4 I just first want to echo the previous  
5 speakers, who were also landowners, we are a  
6 landowner as well, and this would be 200, 300 feet  
7 from my bedroom.

8 So for those of you who are not from this  
9 area, this project area is two straight lines. So  
10 it's not just a power line, but the substation and  
11 data center and now this project. You drive for two  
12 miles and it's all the affected area, just to give  
13 you a scope of how large this is.

14 So a bit about myself. We were already  
15 forced out of our house by the substation project by  
16 Minnesota Power, three years ago we had to move. We  
17 moved close by, and now this is going to be in my  
18 backyard.

19 My four kids and I are home all day, we  
20 home school. So now we're going to be obstructed  
21 again. I'm concerned about EMS, noise, obviously  
22 disruption, and I'm concerned because I don't think  
23 this would fly if all this was came at once, and I  
24 know they're different projects, the data center,  
25 the substation and the lines. I just don't know if

1 this community would have gone for it if it was all  
2 presented at once. And I just feel like as a  
3 resident we're just in the way and that Minnesota  
4 Power has just decided what they want for this area.

5 And also multiple of my neighbors have  
6 been bought out as a courtesy for this disruption  
7 that they've faced when they come here and see that  
8 the power lines go through their properties, these  
9 new proposed lines. So I don't trust them. I can  
10 see that they needed their property, but they just  
11 provided it as a courtesy to those folks.

12 Also, we've asked Minnesota Power many  
13 times after we relocated to verify that we wouldn't  
14 be affected again, and every time they said we would  
15 not be for this substation project. They didn't  
16 tell us about anything else. So I just don't trust  
17 them. So thank you.

18 MS. EMILY JOHNSON: Thank you. I've also  
19 seen your other comments in the record about your  
20 property and I would also like to talk to you after  
21 the meeting.

22 Anybody else? Yes, state and spell your  
23 name.

24 MS. DAWN LaPOINTE: My name is Dawn,  
25 D-a-w-n, LaPointe, L-a-P-o-i-n-t-e.

1 I did not come here prepared to speak,  
2 but I do have some questions that I'd like clarified  
3 since we're having some dialogue.

4 As I understand it, this transmission  
5 line is reportedly to benefit MISO's grid need and  
6 reliability. So if this project is not related to  
7 the potential data center in Hermantown, is MISO's  
8 claimed need for an increase in transmission  
9 throughout its grid due to the rapid development of  
10 power guzzling data centers throughout the midwest?

11 MR. DREW JANKE: I can respond to that,  
12 thank you for the question.

13 So the way MISO does this regional  
14 planning is they develop kind of an outlook on what  
15 the future looks like as far as the energy resource  
16 generation, what are the needs to serve our  
17 customers, including state policies and building  
18 goals and stuff like that, and they also look at  
19 what load growth might look like.

20 When they look at load growth they don't  
21 look at individual large loads like potential data  
22 centers. They look at load growth rates, what does  
23 load growth look like if we have more electric  
24 vehicles, cell phones, all of the things that we use  
25 every day, and they look at it as a percentage

1 across the region.

2 So when MISO did their study, going back  
3 to 2020 when they started developing these  
4 assumptions, they didn't consider the needs of  
5 individual data centers, large loads. They looked  
6 at general load growth across the region, spread out  
7 as it is for general growth use.

8 MS. DAWN LaPOINTE: So if they base their  
9 projections on assumptions made that long ago, does  
10 that even account for this rapid increase in power  
11 needs from all the data centers that are being  
12 built, or are we just planning to go through this  
13 again with 745?

14 MR. DREW JANKE: Well, it doesn't account  
15 specifically for data centers like you're talking  
16 about here, and part of why that is, the  
17 conversations and comments that we've been having is  
18 the data centers have to go through a transmission  
19 interconnection process. If they impact the system  
20 then they have to pay for those impacts.

21 So MISO is not looking at building out  
22 the regional individual data centers. They're  
23 looking at regional grid to serve our customer  
24 needs, and there's a separate process if a data  
25 center wants to interconnect to the transmission

1 system so that can be evaluated and considered and  
2 for those costs to be assessed.

3 MS. DAWN LaPOINTE: Thank you.

4 MS. EMILY JOHNSON: Thank you. Anybody  
5 else? Any other first round commenters?

6 Just before I open this up again for  
7 second round commenters I'm going to put this slide  
8 back up, so just the how to comment slide.

9 Again, there's all these options for  
10 commenting and I encourage you to comment throughout  
11 our open comment period.

12 So we'll open it up for the second  
13 timers. State and spell your name again. Thank  
14 you.

15 MR. TOM BATES: Long and complicated,  
16 T-o-m B-a-t-e-s, Tom Bates.

17 I stood before the Hermantown city  
18 council and I just was pleading with them in kind of  
19 a humorous way, to keep it light, but they needed to  
20 slow down on this whole thing. They just, you know,  
21 take half a year.

22 I'm 72 years old and I made plenty of  
23 mistakes, some of which have cost me dearly, and  
24 they pull their pants on the same way I do. If we  
25 could get some sort of relief, where there would be

1 just some time where we could really just look at  
2 this whole thing. Look at the out fall, look at the  
3 complications, and I'm talking about, you know, the  
4 little gal that's got a little kid, see if there is  
5 a way around it, where you could run the line along  
6 Highway 2, I don't know, maybe you could. Maybe you  
7 could slow the corporate process down for the data  
8 center.

9 I'm not saying you're going to stop it,  
10 maybe it's unstoppable, but slow it down, maybe we  
11 can do it better. You get what I'm saying? That's  
12 all I got. I could say a whole 'nother five minutes  
13 of the impact of the data center, but that's for a  
14 different day. Anyhow. Thank you.

15 MS. EMILY JOHNSON: Thank you again.

16 Any more? Yes, with your hand up.  
17 Please state and spell your name again, thank you.

18 MS. EMMA RICHTMAN: Emma Richtman,  
19 E-m-m-a R-i-c-h-t-m-a-n.

20 I believe earlier during the presentation  
21 someone from this table (indicating) had mentioned  
22 tracks compliance throughout the process. Can you  
23 give a brief elaboration on that, because I have a  
24 comment I want to follow up on depending on your  
25 answer.

1 MS. EMILY JOHNSON: Absolutely. So our  
2 staff for this project, Saarah and I, are assigned  
3 to this project. So if it is permitted we would be  
4 responsible for tracking the compliance throughout  
5 the life of the project. That means, you know, if  
6 it's a 30 year project, our staff is responsible  
7 every time that they go in to do, for instance, when  
8 they're in the construction phase of the project,  
9 they have to submit all of their compliance filings  
10 to us to review.

11 Depending on the permit there may be  
12 independent third monitor parties that also submit  
13 reports for us to review.

14 We bring in the local counties that are  
15 involved and experts from the local counties to sit  
16 in on our some of our compliance meetings.

17 So we track the project throughout the  
18 life of the project.

19 We also have a complaint process so if a  
20 project is permitted and throughout the life of the  
21 project if you have complaints about what's  
22 happening and what you're seeing, you can file  
23 complaints to the Commission as well.

24 MS. EMMA RICHTMAN: So would some of what  
25 you just spoke to, the compliance, would that fall

1 under the umbrella of like tree cutting or pesticide  
2 -- herbicide application, stuff like that?

3 MS. EMILY JOHNSON: Any time that the  
4 Applicant is performing an activity under the  
5 permit, especially during construction, as far as  
6 tree clearing, they have to submit their plans to us  
7 prior to starting that activity, yes.

8 MS. EMMA RICHTMAN: And if a resident who  
9 is impacted by the project has an issue, who do they  
10 direct that to.

11 MS. EMILY JOHNSON: We hope that they're  
12 working with the Applicant, or if at the time it is  
13 permitted, the permittee first. But you can also  
14 always contact our staff if you have a complaint, if  
15 you go through the complaint process. But we are  
16 available all the time to contact if you have a  
17 concern.

18 MS. EMMA RICHTMAN: I guess I just want  
19 to echo these homeowners back here. Again, I live  
20 on a property that's part of the Duluth loop  
21 project, as I'm referring to it, I understand it's a  
22 larger name. Anyways, on my property we lost trees.  
23 We've also had herbicides applied as part of them  
24 maintaining the easements, which they had to  
25 purchase, which is a whole other story that's not

1 intended for right now.

2 But I remember when we were in the  
3 process of chitchatting with the land acquisition  
4 folks at Minnesota Power, we had questions about,  
5 well, when they come and they have to spray  
6 herbicides, we've had issues with over spray in the  
7 past, and we do not use pesticides and we are a  
8 gardener and we have an orchard and we have  
9 chickens, and the response that we got ran very  
10 hollow, to the extent of like, well, unless you're  
11 going to be home and like monitoring them, like, you  
12 know, after the fact you could sue them but the  
13 damage is already done.

14 So the tough shit mentality really  
15 aggravates me as a property owner. And so for  
16 someone that is going to be potentially impacted by  
17 this, I just really have a lot of empathy and  
18 heartache for people who like build their lives and  
19 their family from the ground up.

20 So it just makes me cranky and spicy and  
21 I just feel that that needs to be shared, that,  
22 again, once the project is underway it just feels  
23 like there's very little consideration for the  
24 impact it has on the human scale. Thank you.

25 MS. EMILY JOHNSON: Thank you for that.

1 I would like to reiterate that our staff is here for  
2 those concerns as well. So please take our cards as  
3 you walk out and keep in touch with us.

4 Any other comments? Anyone like to  
5 speak?

6 MS. ANNETTE RALPH: I'll comment on what  
7 she just said.

8 MS. EMILY JOHNSON: Come on up and state  
9 and spell your name.

10 MS. ANNETTE RALPH: My name is Annette  
11 Ralph, A-n-n-e-t-t-e R-a-l-p-h.

12 I also contacted Minnesota Power when  
13 they say they're going to come out and clear the  
14 path and the spray and whatever. And I talked to  
15 the guy and he said I will get it to the workers who  
16 are going out there. We discussed stopping the  
17 spraying here and stopping it here, because my  
18 garden is right here. And every single time they do  
19 not get the message. Every single time I have to go  
20 out there and tell them to stop spraying and stop  
21 and start, you were supposed to stop here and then  
22 pick it up here, and they never get the message.  
23 Ever. And I've lived there for 49 years.

24 And then another thing that happened this  
25 year or last year, the year before, they came out

1 with a helicopter and chopped down the trees, and  
2 they didn't need to chop the whole sides of these  
3 trees, because those trees would never reach those  
4 poles where those power lines are. Yet they come  
5 out there and they just whack away at whatever they  
6 want.

7 MS. EMILY JOHNSON: Thank you for that.  
8 We do appreciate all of this input.

9 Anybody else who would like to speak?

10 Why don't we -- we'll take a quick break.  
11 We only have about 20 minutes left or so, but we'll  
12 take a quick five minute break and we'll come back  
13 and see if anyone else wants to speak. So let's  
14 come back around 7:45. Quick break.

15 (A brief recess was taken at this time.)

16 MS. EMILY JOHNSON: We are back, sorry  
17 for the delay.

18 We've got about ten minutes here and I  
19 want to make sure everybody has the time to be able  
20 to comment.

21 Would anyone like to come up to the mike?  
22 State and spell your name, please.

23 MS. KAREN HARMON: Karen Harmon,  
24 K-a-r-e-n H-a-r-m-o-n.

25 I really have more of a question for

1 Minnesota Power. Some of it goes along with the  
2 lack of trust and the feelings on the people in  
3 Hermantown, but there seems to be construction  
4 ongoing on land that has power poles on it now  
5 already in Hermantown. So I'm assuming it's an  
6 easement area. So is that related to the new poles  
7 that you're proposing and the 745 of that -- the  
8 high voltage that you're proposing, or is that just  
9 usual maintenance.

10 MR. DREW JANKE: I'm not sure  
11 specifically which area you're talking about, but we  
12 have projects under construction already that have  
13 been previously permitted, a couple of them I did  
14 mention tonight, the Duluth Loop project, the HVDC  
15 modernization project in similar areas as the end  
16 point of this project in Hermantown.

17 So those are separate projects, they've  
18 been previously permitted and now in the  
19 construction phase. This project we can't until or  
20 unless we have receive permits from the MPUC.

21 MS. KAREN HARMON: Can you start  
22 construction on an area for this project,  
23 construction in an area that you own for this  
24 project, even though it hasn't been permitted?

25 MR. DREW JANKE: No. Even on land that

1 we own we have to receive the permits from the MPUC  
2 first in order to construct this project.

3 MS. KAREN HARMON: So that means you  
4 couldn't come in and clear it and remove the trees  
5 or do anything along that line or spray your  
6 herbicides until it's permitted? I'm sorry to be so  
7 difficult.

8 MR. DREW JANKE: For the new  
9 infrastructure associated with this project we can't  
10 start construction or do any of that stuff that you  
11 were talking about until we have a permit from the  
12 PUC.

13 We can operate, maintain our existing  
14 infrastructure transmission lines, we can construct  
15 projects that were already previously permitted, but  
16 we can't start construction or do any of that on  
17 this particular project that's being proposed here  
18 until we have a permit.

19 MS. KAREN HARMON: It just seems odd that  
20 there is construction going on in an area that I  
21 would anticipate is going to be involved in the new  
22 transmission line, and it's not involving any  
23 transmission line that it's an ongoing project that  
24 you've already permitted, but you might have to go  
25 back and have it redone.

1 MR. DREW JANKE: Maybe we can talk  
2 afterwards here and look at the specific area you're  
3 thinking about to help understand what is going on  
4 there. There are ongoing projects in the area, so  
5 it's hard to know, you know, without looking at a  
6 map to know essentially what's going on there and  
7 what particular area you're talking about.

8 MS. KAREN HARMON: Thank you.

9 MS. EMILY JOHNSON: Thank you.

10 Please state and spell your name.

11 MS. KATHY PETERSON: Kathy Peterson,  
12 K-a-t-h-y P-e-t-e-r-s-o-n.

13 I have been very impressed with all of  
14 the work that the people in Hermantown who I've been  
15 watching for at least a year now maybe, and I know  
16 that they have thought through it, they've checked  
17 on the legalities, they've done a tremendous amount  
18 of research. But I'm wondering, if in my naivete,  
19 have you all told them what they need to give you in  
20 order to make a difference? If there's a tool kit  
21 that people who are doing this can use.

22 MS. DESIREE MORNINGSTAR: Thank you,  
23 Mrs. Peterson, for your question. So to be  
24 informative on this docket, really what we're  
25 looking for are answers to the questions that are in

1 the notice. Are there route alternatives, we've  
2 heard tonight about why doesn't this go along route  
3 2, we want to look into that more, we're going to be  
4 looking at that very closely. Any other information  
5 about alternative routes that could minimize effects  
6 to resources and concerns is what we want to hear  
7 about that, we're going to look very closely at that  
8 in a lot of detail as we look to make  
9 recommendations to the commissioners.

10 If there's anything, any resources of  
11 concern to community members that haven't been  
12 addressed in the environmental assessment and the  
13 application, if there are gaps, resources that  
14 haven't been taken into account, haven't talked  
15 about, we want you to highlight that for us, so we  
16 can make a decision and recommendation on the EA  
17 addendum. Thank you.

18 MS. EMILY JOHNSON: We pulled the file  
19 back there, specifically about what we are looking  
20 for and it's also written on the public comment form  
21 as well.

22 MS. KATHY PETERSON: So if people follow  
23 those guidelines that you all are offering, and they  
24 present logical and accurate information, then it  
25 would seem to me that you all would probably have to

1 make a decision -- I'll just use the word against --  
2 against Minnesota Power.

3           When it was time for Black Rock to do the  
4 purchasing or whatever it is that they ended up  
5 doing. There were people there, again, who spoke  
6 very intelligently and were well-versed in what was  
7 going on and it still happened.

8           So I am very appreciative of this  
9 opportunity, but I'm just wondering if there's  
10 something magic that some of us aren't aware of that  
11 could really make a big difference.

12           MS. EMILY JOHNSON: So it is my job as  
13 the environmental review manager for this project to  
14 review all comments that come in, including all of  
15 the impacts you bring forward, the mitigation  
16 measures, the alternatives, and to include all of  
17 those things in our environmental report here and EA  
18 addendum, if we feel that is necessary, and a lot of  
19 that is driven off of your input, as well as our  
20 mitigation measures and special permit conditions in  
21 the draft permit.

22           So everything that I do will be available  
23 to all of you to review on our eDockets file and web  
24 page. If you want help finding it I'm more than  
25 happy to help you find that web page, and you can

1 always go in and review all of my work and call me  
2 directly if there's anything missing or make  
3 comments again during the public hearing comment  
4 period, to say that you missed something or I didn't  
5 do a good enough job, something like that. We want  
6 to hear from you. Your input does really matter,  
7 whether or not you think it does. I can promise you  
8 it does. That's why I'm in this role.

9 I can't speak to the other projects that  
10 you're referring to, but I can say that I know our  
11 commissioners review every single word that's spoken  
12 at these meetings and the transcripts and everything  
13 that I write and we recommend from our staff and we  
14 make the most well-informed decisions so that they  
15 make the most well-informed decisions.

16 MS. KATHY PETERSON: Thank you, I  
17 appreciate this time.

18 MS. EMILY JOHNSON: Thank you, we  
19 appreciate you speaking.

20 It is eight p.m. so I would like to  
21 respect everyone's time. We are going to end the  
22 meeting. If you have any questions you can always  
23 come up to us after the meeting or again contact us.  
24 In the back room we have our business cards  
25 available.

1           You pulled up the slide already, thank  
2 you. Comments will be made public via our eDockets  
3 filing system. The Commission does not edit or  
4 delete personal identifying information from  
5 submissions, so just keep that in mind.

6           The written comment period will close on  
7 April 23rd, 2026. And, again, the transcripts from  
8 all of the meetings will be made available as soon  
9 as they are ready, and you can review those any  
10 time. Everything that's discussed here is included  
11 in those.

12           I also just want to say that we thank you  
13 again for taking time out of your busy lives to be  
14 here and to contribute to this process. It is very  
15 important and it is very informative for us and we  
16 rely on that input.

17           I know it's hard to come up and speak but  
18 we really appreciate you doing so. Thank you. And  
19 get home safely.

20           (Proceedings adjourned at 8:00 p.m.)

21  
22  
23  
24  
25

1 STATE OF MINNESOTA )

2 COUNTY OF HENNEPIN )

3

4

REPORTER'S CERTIFICATE

5

6

I, Jonna Schrupp, do hereby certify

7

that the above and foregoing transcript,

8

consisting of the preceding 77 pages is a

9

correct transcript of my stenographic notes of

10

the proceedings to the best of my ability.

11

Dated April 11, 2026

12

13

/s/ Jonna Schrupp

JONNA SCHRUPP

14

Stenographic Court Reporter

15

16

17

18

19

20

21

22

23

24

25

<b>A</b>	<p><b>adjacent (2)</b> 17:13,24</p> <p><b>adjourned (1)</b> 77:20</p> <p><b>adjustive (1)</b> 51:25</p> <p><b>advocate (1)</b> 19:15</p> <p><b>aesthetic (1)</b> 22:24</p> <p><b>aesthetics (1)</b> 19:25</p> <p><b>affect (4)</b> 32:2,14;48:1;54:2</p> <p><b>affected (3)</b> 39:25;60:12;61:14</p> <p><b>affecting (3)</b> 54:25;55:9,9</p> <p><b>affects (1)</b> 54:5</p> <p><b>afterwards (1)</b> 73:2</p> <p><b>again (31)</b> 15:5;21:8;28:17; 30:4,5;33:20;39:12, 21;40:18;41:6,24; 44:20;45:7;52:17,24; 56:13;60:21;61:14; 63:13;64:6,9,13; 65:15,17;67:19; 68:22;75:5;76:3,23; 77:7,13</p> <p><b>against (4)</b> 5:11;19:15;75:1,2</p> <p><b>aged (1)</b> 55:17</p> <p><b>agencies (3)</b> 18:14;20:19;21:23</p> <p><b>Agency (1)</b> 21:4</p> <p><b>agenda (1)</b> 4:10</p> <p><b>aggravates (1)</b> 68:15</p> <p><b>agitation (1)</b> 37:2</p> <p><b>ago (2)</b> 60:16;63:9</p> <p><b>agree (1)</b> 30:2</p> <p><b>agreed (1)</b> 41:23</p> <p><b>agreement (4)</b> 42:12;56:25;57:1,4</p> <p><b>agreements (1)</b> 18:22</p> <p><b>agricultural (1)</b> 20:11</p> <p><b>Agriculture (2)</b> 20:11,13</p> <p><b>ahead (1)</b> 14:2</p> <p><b>ahold (1)</b></p>	<p><b>49:23</b></p> <p><b>aimed (1)</b> 19:1</p> <p><b>Allete (1)</b> 57:1</p> <p><b>ALLISON (5)</b> 42:23,24;43:19; 44:1;45:16</p> <p><b>A-l-l-i-s-o-n (1)</b> 42:24</p> <p><b>allow (5)</b> 14:9;23:23;34:23; 51:10;59:24</p> <p><b>allowed (1)</b> 48:9</p> <p><b>almost (1)</b> 49:24</p> <p><b>along (11)</b> 3:20;14:18;20:22; 28:8,10;31:2,24;65:5; 71:1;72:5;74:2</p> <p><b>alongside (1)</b> 6:9</p> <p><b>alternative (4)</b> 23:4;25:25;53:25; 74:5</p> <p><b>Alternatively (1)</b> 31:17</p> <p><b>alternatives (8)</b> 19:9;25:19,21;26:9, 18;27:4;74:1;75:16</p> <p><b>aluminum (1)</b> 37:2</p> <p><b>always (6)</b> 31:5;40:20;46:8; 67:14;76:1,22</p> <p><b>American (2)</b> 8:4;32:9</p> <p><b>amount (2)</b> 14:4;73:17</p> <p><b>AMY (2)</b> 56:17,18</p> <p><b>A-m-y (1)</b> 56:18</p> <p><b>analysis (1)</b> 15:17</p> <p><b>analyst (1)</b> 4:11</p> <p><b>animals (2)</b> 32:4,13</p> <p><b>ANNETTE (3)</b> 69:6,10,10</p> <p><b>A-n-n-e-t-t-e (1)</b> 69:11</p> <p><b>anticipate (1)</b> 72:21</p> <p><b>anymore (1)</b> 14:23</p> <p><b>Anyways (1)</b> 67:22</p> <p><b>apologize (1)</b> 57:20</p> <p><b>appealing (1)</b></p>	<p><b>37:18</b></p> <p><b>appears (1)</b> 53:16</p> <p><b>appendix (1)</b> 24:17</p> <p><b>Applicant (10)</b> 7:5;12:13;19:4; 23:23;27:16;33:19, 23;35:14;67:4,12</p> <p><b>Applicants (3)</b> 4:14;5:17;6:20</p> <p><b>application (20)</b> 4:18;6:22;9:5;11:9, 18;12:12,16,22;13:2, 7;17:5;19:5;24:17,18; 25:14,15;27:17;44:4; 67:2;74:13</p> <p><b>applications (2)</b> 24:13;25:16</p> <p><b>applied (1)</b> 67:23</p> <p><b>applies (1)</b> 23:6</p> <p><b>apply (1)</b> 23:15</p> <p><b>appointed (1)</b> 6:4</p> <p><b>appreciate (5)</b> 42:1;70:8;76:17,19; 77:18</p> <p><b>appreciative (1)</b> 75:8</p> <p><b>approvals (1)</b> 6:13</p> <p><b>approve (2)</b> 40:13,21</p> <p><b>approved (5)</b> 10:11;15:15,25; 34:8;43:21</p> <p><b>approving (1)</b> 40:15</p> <p><b>approximately (1)</b> 8:14</p> <p><b>April (6)</b> 3:22;27:22;29:12; 41:3;42:10;77:7</p> <p><b>archaeological (1)</b> 20:17</p> <p><b>archeological (1)</b> 20:20</p> <p><b>area (19)</b> 9:14;13:6;14:9; 16:3;25:5;44:10;45:9; 60:9,9,12;61:4;71:6, 11,22,23;72:20;73:2, 4,7</p> <p><b>areas (1)</b> 71:15</p> <p><b>argued (1)</b> 45:7</p> <p><b>argument (1)</b> 44:19</p> <p><b>Army (2)</b></p>	<p><b>21:1;31:4</b></p> <p><b>around (8)</b> 12:8;14:7;15:11,19; 56:14;59:14;65:5; 70:14</p> <p><b>Arrowhead (10)</b> 3:5;8:12,18;11:4; 13:12;17:7;18:9;36:9; 43:10;44:12</p> <p><b>aspect (2)</b> 13:3;17:3</p> <p><b>aspects (1)</b> 8:9</p> <p><b>assessed (1)</b> 64:2</p> <p><b>assessment (17)</b> 6:21;19:5,7,14,17, 18,23;20:4;21:7; 24:14,24;25:6,11; 26:11,25;28:3;74:12</p> <p><b>assigned (1)</b> 66:2</p> <p><b>associated (3)</b> 3:8;42:15;72:9</p> <p><b>Assuming (2)</b> 18:25;71:5</p> <p><b>assumptions (2)</b> 63:4,9</p> <p><b>ATC (6)</b> 8:4,4,5,8,13;10:21</p> <p><b>attend (1)</b> 28:21</p> <p><b>attention (1)</b> 59:13</p> <p><b>available (12)</b> 12:22;24:18,19,20; 28:12;29:1,7;42:14; 67:16;75:22;76:25; 77:8</p> <p><b>avoid (2)</b> 19:12;26:13</p> <p><b>aware (3)</b> 42:9;48:24;75:10</p> <p><b>away (4)</b> 45:8,10;49:4;70:5</p> <p><b>awful (1)</b> 32:16</p>
			<b>B</b>	
			<p><b>back (30)</b> 3:2;4:5,15;7:3;9:21, 22;13:23;15:16,22; 16:23;21:14;22:8; 29:1,5,7;30:4,15; 39:20;42:14;45:15; 49:15;63:2;64:8; 67:19;70:12,14,16; 72:25;74:19;76:24</p> <p><b>backed (1)</b> 44:23</p> <p><b>background (1)</b> 9:3</p>	

<p><b>backyard (4)</b> 31:22;32:7,11; 60:18</p> <p><b>Bank (1)</b> 40:23</p> <p><b>barriers (1)</b> 14:12</p> <p><b>base (2)</b> 56:13;63:8</p> <p><b>based (8)</b> 20:8,9;21:9;24:8; 26:20;27:24;41:16; 46:19</p> <p><b>baseline (1)</b> 14:24</p> <p><b>Bates (9)</b> 35:19;21,22;36:10, 13,16,18;64:15,16</p> <p><b>B-a-t-e-s (2)</b> 35:25;64:16</p> <p><b>battery (1)</b> 37:5</p> <p><b>bearing (1)</b> 3:11</p> <p><b>become (1)</b> 11:22</p> <p><b>bedroom (1)</b> 60:7</p> <p><b>begin (1)</b> 43:1</p> <p><b>beginning (2)</b> 15:16;19:3</p> <p><b>begins (1)</b> 23:13</p> <p><b>behalf (1)</b> 48:18</p> <p><b>behind (1)</b> 31:21</p> <p><b>benefit (2)</b> 59:17;62:5</p> <p><b>benefits (3)</b> 11:13,15,15</p> <p><b>better (1)</b> 65:11</p> <p><b>Bianca (2)</b> 30:23,25</p> <p><b>B-i-a-n-c-a (1)</b> 30:25</p> <p><b>big (2)</b> 59:15;75:11</p> <p><b>bigger (1)</b> 57:9</p> <p><b>billion (4)</b> 51:3,6;58:10,10</p> <p><b>binders (1)</b> 11:10</p> <p><b>bit (9)</b> 3:12;13:8;20:3; 24:3;31:2;39:6;49:7; 58:22;60:14</p> <p><b>Black (3)</b> 41:16;59:7;75:3</p> <p><b>blinders (1)</b></p>	<p>59:13</p> <p><b>Blitzkrieg (1)</b> 34:23</p> <p><b>block (2)</b> 53:22;55:19</p> <p><b>blue (3)</b> 10:10;18:1;27:10</p> <p><b>board (2)</b> 10:11;21:22</p> <p><b>boards (1)</b> 9:8</p> <p><b>bold (1)</b> 33:22</p> <p><b>border (1)</b> 11:20</p> <p><b>Boswell (1)</b> 50:25</p> <p><b>Both (11)</b> 6:14;14:17;18:17; 19:10,19;20:2,18; 21:2,7;28:15;52:12</p> <p><b>Boucher (1)</b> 41:5</p> <p><b>bought (1)</b> 61:6</p> <p><b>box (1)</b> 10:10</p> <p><b>boy (2)</b> 46:4,14</p> <p><b>BRADFORD (2)</b> 48:15;49:2</p> <p><b>B-r-a-d-f-o-r-d (1)</b> 48:16</p> <p><b>break (3)</b> 70:10,12,14</p> <p><b>Bret (1)</b> 4:6</p> <p><b>brief (6)</b> 4:12,14;5:24;57:17; 65:23;70:15</p> <p><b>bring (3)</b> 12:14;66:14;75:15</p> <p><b>brings (1)</b> 11:14</p> <p><b>broken (1)</b> 17:16</p> <p><b>brought (1)</b> 41:9</p> <p><b>buffer (1)</b> 53:19</p> <p><b>build (6)</b> 22:14;37:6,17,20; 38:19;68:18</p> <p><b>building (5)</b> 30:16;36:25;49:6; 62:17;63:21</p> <p><b>buildings (2)</b> 53:11;54:5</p> <p><b>built (5)</b> 8:15;15:16;39:7; 53:10;63:12</p> <p><b>bullet (2)</b> 11:19;15:4</p>	<p><b>bunch (2)</b> 37:5;50:18</p> <p><b>business (2)</b> 46:20;76:24</p> <p><b>busy (1)</b> 77:13</p> <p style="text-align: center;"><b>C</b></p> <p><b>call (1)</b> 76:1</p> <p><b>called (1)</b> 9:24</p> <p><b>came (3)</b> 9:4;60:23;69:25</p> <p><b>Can (65)</b> 3:1,14;4:25;5:14, 16;6:23;7:1,14;8:23, 23;11:19;12:25; 13:11;16:23;22:3,8, 17;23:10;25:21;26:1; 27:11;28:22,22,24; 29:3,5;30:2,4,16;35:1, 11,13,25;37:22;38:8; 43:2,7,21;45:15; 49:14;50:4;54:1,15, 23;55:13,17;56:22; 61:9;62:11;64:1; 65:11,22;66:22; 67:13;71:21;72:13, 14;73:1,21;74:16; 75:25;76:7,10,22; 77:9</p> <p><b>capabilities (1)</b> 12:18</p> <p><b>capability (1)</b> 7:18</p> <p><b>capable (1)</b> 8:16</p> <p><b>capacity (1)</b> 7:19</p> <p><b>Capitol (1)</b> 34:11</p> <p><b>card (1)</b> 29:7</p> <p><b>cards (2)</b> 69:2;76:24</p> <p><b>care (1)</b> 5:21</p> <p><b>case (1)</b> 40:19</p> <p><b>CASEY (2)</b> 53:1,1</p> <p><b>C-a-s-e-y (1)</b> 53:2</p> <p><b>cell (1)</b> 62:24</p> <p><b>center (37)</b> 15:11;16:6,7,16; 33:8;35:3;38:10,19; 40:2,4,7,11,12,22; 41:5,9,12,18,20,25; 45:25;51:7,8;52:5;</p>	<p>56:23;57:6;58:6;59:3, 3,9,16;60:11,24;62:7; 63:25;65:8,13</p> <p><b>centers (11)</b> 16:12;51:13;58:3,8; 62:10,22;63:5,11,15, 18,22</p> <p><b>center's (1)</b> 51:15</p> <p><b>central (1)</b> 12:3</p> <p><b>certain (1)</b> 24:25</p> <p><b>certainly (1)</b> 50:4</p> <p><b>certificate (10)</b> 6:14,15,17;11:8; 25:15,15;28:16;44:3, 10;45:2</p> <p><b>cetera (1)</b> 50:20</p> <p><b>chair (1)</b> 34:12</p> <p><b>chance (3)</b> 30:3,11;59:24</p> <p><b>change (2)</b> 16:13;47:20</p> <p><b>changed (5)</b> 12:1;13:21;14:6,7; 58:19</p> <p><b>changes (1)</b> 14:11</p> <p><b>changing (1)</b> 53:23</p> <p><b>characteristics (3)</b> 23:11;25:4;26:8</p> <p><b>checked (1)</b> 73:16</p> <p><b>chickens (1)</b> 68:9</p> <p><b>child (2)</b> 31:14;46:16</p> <p><b>children (2)</b> 39:23;46:10</p> <p><b>chitchatting (1)</b> 68:3</p> <p><b>chop (1)</b> 70:2</p> <p><b>chopped (1)</b> 70:1</p> <p><b>Christian (10)</b> 8:21,22;9:1;17:1; 36:8,12,14,17;43:8,23</p> <p><b>circuit (5)</b> 8:16;18:10;43:5,10, 13</p> <p><b>citizen (1)</b> 33:21</p> <p><b>citizens (3)</b> 33:10;34:3,25</p> <p><b>City (3)</b> 41:2,10;64:17</p> <p><b>claim (1)</b></p>	<p>45:2</p> <p><b>claimed (1)</b> 62:8</p> <p><b>clarified (1)</b> 62:2</p> <p><b>clarify (3)</b> 16:20;35:17;43:21</p> <p><b>clarifying (1)</b> 9:4</p> <p><b>CLARISSA (3)</b> 39:15,16;48:19</p> <p><b>C-l-a-r-i-s-s-a (1)</b> 39:16</p> <p><b>clean (2)</b> 12:10;58:22</p> <p><b>clear (5)</b> 15:13;16:6;34:16; 69:13;72:4</p> <p><b>clearing (2)</b> 22:25;67:6</p> <p><b>cleverly (1)</b> 50:24</p> <p><b>Cliff (1)</b> 34:8</p> <p><b>close (4)</b> 46:13;49:21;60:17; 77:6</p> <p><b>closely (3)</b> 20:25;74:4,7</p> <p><b>closer (1)</b> 55:14</p> <p><b>closes (1)</b> 28:11</p> <p><b>CN-25-111 (1)</b> 3:9</p> <p><b>coal (2)</b> 13:18,24</p> <p><b>co-applicant (1)</b> 8:3</p> <p><b>co-applicants (1)</b> 8:14</p> <p><b>coincidental (1)</b> 41:12</p> <p><b>colleague (4)</b> 4:16;7:3;8:20,21</p> <p><b>collected (1)</b> 23:18</p> <p><b>collocate (1)</b> 17:24</p> <p><b>collocated (1)</b> 17:11</p> <p><b>collocation (1)</b> 17:12</p> <p><b>combined (1)</b> 25:14</p> <p><b>comfortable (1)</b> 30:14</p> <p><b>coming (10)</b> 8:25;10:24;13:18; 36:19;47:18;48:1,17; 52:21;56:2;59:3</p> <p><b>comment (39)</b> 4:1;5:1,2;23:17;</p>
--	--	--	---	---

<p>24:1;25:2;26:5,22;                  27:22;28:10,11,22,25;                  29:3,12;30:17;32:20;                  37:22;38:7;42:6,9,10,                  15,17,18,21;52:7,9;                  53:4;59:23;64:8,10,                  11;65:24;69:6;70:20;                  74:20;76:3;77:6  <b>commenters (3)</b>                  4:24;64:5,7  <b>commenting (3)</b>                  4:3;29:17;64:10  <b>comments (36)</b>                  4:5,8,20;5:6,7,14,                  18,23;15:10;22:3;                  26:21;27:11;28:23;                  29:15,23;30:3,12,16,                  21;35:8;38:5;39:25;                  41:1;42:6,16;48:20;                  53:3,13;54:13;60:3;                  61:19;63:17;69:4;                  75:14;76:3;77:2  <b>Commerce (2)</b>                  33:16,22  <b>Commission (32)</b>                  3:8;4:12;5:10,19;                  6:1,13,18;16:3,17;                  22:11,19;23:6;24:10;                  25:10;26:14,23;27:3,                  16,25;28:14;34:15,                  22;35:4;41:22,23,24;                  48:23;49:22;52:8;                  57:12;66:23;77:3  <b>Commissioner (1)</b>                  6:7  <b>commissioners (4)</b>                  5:21;6:4;74:9;                  76:11  <b>Commission's (4)</b>                  5:13;6:24;22:15;                  23:25  <b>committee (1)</b>                  34:13  <b>common (1)</b>                  13:10  <b>communication (1)</b>                  33:15  <b>communications (1)</b>                  21:21  <b>communities (1)</b>                  5:22  <b>community (5)</b>                  23:18;38:16;52:4;                  61:1;74:11  <b>companies (1)</b>                  57:24  <b>Company (1)</b>                  8:4  <b>compile (1)</b>                  5:12  <b>complaint (3)</b>                  66:19;67:14,15  <b>complaints (2)</b></p>	<p>66:21,23  <b>complete (3)</b>                  22:14;27:17;28:25  <b>completed (2)</b>                  14:24;47:25  <b>complex (1)</b>                  35:24  <b>compliance (7)</b>                  7:8;23:8;65:22;                  66:4,9,16,25  <b>complicated (1)</b>                  64:15  <b>complications (1)</b>                  65:3  <b>concept (1)</b>                  15:19  <b>concern (7)</b>                  13:17;53:14;56:20;                  57:9,17;67:17;74:11  <b>concerned (5)</b>                  25:1;33:19;50:12;                  60:21,22  <b>concerns (5)</b>                  16:16;34:14;54:15;                  69:2;74:6  <b>concludes (2)</b>                  7:2;23:17  <b>conditions (9)</b>                  5:20;11:22;23:7,15,                  20;26:14;27:2;50:5;                  75:20  <b>configurations (1)</b>                  25:24  <b>confirmed (1)</b>                  6:5  <b>connect (3)</b>                  54:13;58:3,8  <b>connecting (2)</b>                  43:9;51:6  <b>consider (6)</b>                  16:11;22:20;28:14;                  31:6;50:5;63:4  <b>consideration (2)</b>                  32:20;68:23  <b>considered (1)</b>                  64:1  <b>consist (1)</b>                  43:12  <b>constantly (1)</b>                  49:9  <b>construct (3)</b>                  23:23;72:2,14  <b>constructed (1)</b>                  13:14  <b>constructing (1)</b>                  11:1  <b>construction (15)</b>                  18:25;22:24;23:3;                  37:6;56:25;66:8;67:5;                  71:3,12,19,22,23;                  72:10,16,20  <b>constructive (1)</b>                  38:23</p>	<p><b>consultants (1)</b>                  55:24  <b>consumers (2)</b>                  58:9;59:20  <b>contact (4)</b>                  29:6;67:14,16;                  76:23  <b>contacted (1)</b>                  69:12  <b>contain (2)</b>                  23:20;24:15  <b>continue (4)</b>                  18:20;21:18;22:1;                  34:22  <b>continuing (1)</b>                  18:23  <b>contribute (1)</b>                  77:14  <b>contribution (1)</b>                  31:4  <b>Control (1)</b>                  21:4  <b>conversation (4)</b>                  34:19;57:6,10;59:6  <b>conversations (1)</b>                  63:17  <b>coordinate (5)</b>                  20:10,19,21,25;                  21:2  <b>coordinated (1)</b>                  34:25  <b>copy (3)</b>                  6:23;20:14;29:4  <b>corporate (2)</b>                  38:18;65:7  <b>Corps (1)</b>                  21:1  <b>corruption (1)</b>                  46:24  <b>cost (2)</b>                  58:9;64:23  <b>costs (4)</b>                  11:16;57:14,18;                  64:2  <b>Council (2)</b>                  41:2;64:18  <b>counties (2)</b>                  66:14,15  <b>country (2)</b>                  52:18;55:10  <b>County (13)</b>                  3:5;8:11,18;11:3;                  17:8;18:2,9;21:22;                  43:9;44:11,12,15,15  <b>couple (6)</b>                  9:4;18:15,19;21:13,                  20;71:13  <b>course (2)</b>                  21:22;40:6  <b>court (5)</b>                  4:5;5:4;29:22;                  30:15,20  <b>courtesy (2)</b></p>	<p>61:6,11  <b>cover (5)</b>                  4:22;9:3;12:24;                  13:6;15:9  <b>covered (3)</b>                  9:5;11:12;13:2  <b>covers (5)</b>                  3:23,23;7:15;11:7,                  18  <b>coworker (1)</b>                  29:24  <b>cranky (1)</b>                  68:20  <b>creating (1)</b>                  12:19  <b>crossed (1)</b>                  50:24  <b>crowds (1)</b>                  4:2  <b>CURE's (1)</b>                  41:14  <b>curious (3)</b>                  33:21;47:23;48:22  <b>current (6)</b>                  34:1;49:4,8;53:9,                  10,20  <b>Currently (6)</b>                  7:17,25;27:15;                  42:16;49:3;58:12  <b>customer (5)</b>                  10:17;16:5;38:20;                  59:2;63:23  <b>customers (10)</b>                  7:24;8:1,2;13:25;                  14:1;16:14;57:13,19;                  58:12;62:17  <b>cutting (1)</b>                  67:1</p>	<p><b>daylight (1)</b>                  23:3  <b>days (1)</b>                  14:3  <b>deal (1)</b>                  36:18  <b>dealt (1)</b>                  55:16  <b>Dean (2)</b>                  47:10,10  <b>D-e-a-n (1)</b>                  47:10  <b>dearly (1)</b>                  64:23  <b>decade (1)</b>                  15:20  <b>decarbonization (1)</b>                  10:4  <b>deceit (1)</b>                  52:4  <b>December (1)</b>                  10:11  <b>decibel (1)</b>                  49:9  <b>decide (2)</b>                  6:6;28:2  <b>decided (1)</b>                  61:4  <b>decides (1)</b>                  22:19  <b>decision (15)</b>                  5:13,19;22:15;                  23:25;24:11;28:15,                  19;40:13,14,15;48:8,                  11;52:16;74:16;75:1  <b>decisions (4)</b>                  40:21;52:12;76:14,                  15  <b>declined (1)</b>                  45:8  <b>declining (1)</b>                  44:16  <b>deer (1)</b>                  32:4  <b>definitely (1)</b>                  37:23  <b>delay (2)</b>                  3:12;70:17  <b>delete (1)</b>                  77:4  <b>deliver (2)</b>                  7:23;10:22  <b>delivering (2)</b>                  9:18;10:25  <b>demand (3)</b>                  12:4,9;44:18  <b>demands (1)</b>                  51:12  <b>democracy (1)</b>                  51:25  <b>Department (5)</b>                  20:11,13;21:3;                  33:16,22</p>
<b>D</b>				
			<p><b>Dakotas (1)</b>                  13:19  <b>damage (1)</b>                  68:13  <b>data (54)</b>                  15:11;16:5,7,11,16;                  33:8;34:1,2,5;35:2;                  38:10,19;40:2,4,7,10,                  11,12,22;41:5,8,9,12,                  18,20,25;45:25;51:7,                  8,12,15;52:5;56:23;                  57:6;58:3,6,8;59:2,3,                  9,16;60:11,24;62:7,                  10,21;63:5,11,15,18,                  22,24;65:7,13  <b>DAWN (4)</b>                  61:24,24;63:8;64:3  <b>D-a-w-n (1)</b>                  61:25  <b>day (5)</b>                  49:9;56:11;60:19;                  62:25;65:14</p>	

<p><b>depending (2)</b> 65:24;66:11</p> <p><b>depth (1)</b> 7:4</p> <p><b>describe (1)</b> 19:8</p> <p><b>describes (1)</b> 25:18</p> <p><b>description (1)</b> 4:14</p> <p><b>designing (2)</b> 9:22;11:1</p> <p><b>DESIREE (1)</b> 73:22</p> <p><b>despite (1)</b> 40:5</p> <p><b>detail (3)</b> 4:19;11:12;74:8</p> <p><b>determinations (2)</b> 26:24;28:1</p> <p><b>determine (2)</b> 25:10;28:4</p> <p><b>devastated (1)</b> 55:21</p> <p><b>develop (5)</b> 17:5;21:10;23:19; 24:7;62:14</p> <p><b>developed (2)</b> 10:16;15:15</p> <p><b>developing (1)</b> 63:3</p> <p><b>development (4)</b> 13:5;26:10;39:4; 62:9</p> <p><b>dialogue (1)</b> 62:3</p> <p><b>died (1)</b> 55:3</p> <p><b>difference (2)</b> 73:20;75:11</p> <p><b>different (14)</b> 9:19;10:7;11:25; 25:22,24,25;32:8; 43:15,15;50:25; 57:16,18;60:24;65:14</p> <p><b>difficult (2)</b> 38:14;72:7</p> <p><b>direct (2)</b> 7:1;67:10</p> <p><b>directions (1)</b> 11:25</p> <p><b>directly (4)</b> 22:3;29:6;32:24; 76:2</p> <p><b>disclosed (1)</b> 41:17</p> <p><b>disconnect (1)</b> 33:5</p> <p><b>discuss (5)</b> 20:4;22:16;33:10; 54:14;56:22</p> <p><b>discussed (2)</b> 69:16;77:10</p>	<p><b>discussing (2)</b> 56:23;57:7</p> <p><b>discussion (3)</b> 16:18;18:21;41:20</p> <p><b>disingenuous (1)</b> 57:8</p> <p><b>disjointed (1)</b> 59:11</p> <p><b>dismissive (1)</b> 34:13</p> <p><b>disrespectful (1)</b> 39:2</p> <p><b>disruption (2)</b> 60:22;61:6</p> <p><b>distribution (2)</b> 7:20;8:7</p> <p><b>docked (1)</b> 34:6</p> <p><b>docket (9)</b> 3:7;15:11;33:12,13; 42:7,13,18;51:1; 73:24</p> <p><b>Dockets (1)</b> 30:19</p> <p><b>document (1)</b> 33:25</p> <p><b>DOLENTE (2)</b> 58:16,17</p> <p><b>D-o-l-e-n-t-e (1)</b> 58:17</p> <p><b>dollar (2)</b> 51:3,6</p> <p><b>done (9)</b> 34:3;35:23;37:16; 53:12,13;54:7;57:15; 68:13;73:17</p> <p><b>door (1)</b> 31:22</p> <p><b>double (4)</b> 8:16;18:10;43:5,10</p> <p><b>down (11)</b> 4:5,8,5;5:17;16; 47:18;48:1;50:15; 64:20;65:7,10;70:1</p> <p><b>draft (12)</b> 23:19,22;24:1,8,9; 26:14;27:3,25;28:6; 33:13;50:6;75:21</p> <p><b>drastically (1)</b> 58:20</p> <p><b>DREW (11)</b> 7:6,7;13:25;16:23; 17:1;62:11;63:14; 71:10,25;72:8;73:1</p> <p><b>drive (1)</b> 60:11</p> <p><b>driven (1)</b> 75:19</p> <p><b>due (1)</b> 62:9</p> <p><b>Duluth (6)</b> 38:11;45:23;48:17; 51:24;67:20;71:14</p>	<p><b>during (4)</b> 26:22;65:20;67:5; 76:3</p> <p style="text-align: center;"><b>E</b></p> <p><b>EA (5)</b> 20:16;24:16;28:8; 74:16;75:17</p> <p><b>earlier (4)</b> 25:13;30:13;53:8; 65:20</p> <p><b>early (4)</b> 13:15,23;20:21; 41:10</p> <p><b>easement (3)</b> 18:22;53:10;71:6</p> <p><b>easements (1)</b> 67:24</p> <p><b>easiest (1)</b> 53:17</p> <p><b>easily (1)</b> 50:2</p> <p><b>east (4)</b> 13:20;17:23;18:3; 51:8</p> <p><b>eastern (2)</b> 45:3,4</p> <p><b>echo (3)</b> 48:19;60:4;67:19</p> <p><b>economically (1)</b> 50:19</p> <p><b>economies (3)</b> 20:8,9;21:9</p> <p><b>ecosystem (1)</b> 32:13</p> <p><b>edit (1)</b> 77:3</p> <p><b>eDockets (3)</b> 24:22;75:23;77:2</p> <p><b>effects (3)</b> 31:13;54:23;74:5</p> <p><b>efficiency (1)</b> 11:23</p> <p><b>effort (2)</b> 9:23;34:25</p> <p><b>efforts (1)</b> 20:10</p> <p><b>eight (1)</b> 76:20</p> <p><b>either (3)</b> 9:10;17:12;19:12</p> <p><b>EK (3)</b> 39:15,16;48:19</p> <p><b>E-k (1)</b> 39:16</p> <p><b>elaborate (2)</b> 43:2,7</p> <p><b>elaboration (1)</b> 65:23</p> <p><b>electric (3)</b> 6:1;42:11;62:23</p> <p><b>electrical (1)</b></p>	<p>6:3</p> <p><b>electricians (1)</b> 37:5</p> <p><b>electricity (1)</b> 50:21</p> <p><b>elevation (1)</b> 49:19</p> <p><b>Elling (2)</b> 60:1,1</p> <p><b>E-l-l-i-n-g (1)</b> 60:2</p> <p><b>else (20)</b> 6:9;29:20;40:5; 42:20;45:17;47:8; 48:13;50:7;51:19; 52:23,24;54:16; 55:15;56:15;59:23; 61:16,22;64:5;70:9, 13</p> <p><b>e-mail (4)</b> 22:2,4;29:5;41:6</p> <p><b>Emily (36)</b> 4:16;7:3;21:14; 22:7,9;32:19;35:7; 37:21;39:10;42:5; 45:14,17;47:6;48:4, 25;50:3;51:17;52:22; 54:12;56:12;58:14; 59:22;61:18;64:4; 65:15;66:1;67:3,11; 68:25;69:8;70:7,16; 73:9;74:18;75:12; 76:18</p> <p><b>emit (1)</b> 49:19</p> <p><b>emits (1)</b> 49:8</p> <p><b>Emma (8)</b> 37:25;38:2,2;65:18, 18;66:24;67:8,18</p> <p><b>E-m-m-a (2)</b> 38:3;65:19</p> <p><b>empathy (1)</b> 68:17</p> <p><b>EMS (1)</b> 60:21</p> <p><b>enables (1)</b> 14:13</p> <p><b>ENBERG (2)</b> 50:10,10</p> <p><b>E-n-b-e-r-g (1)</b> 50:11</p> <p><b>encourage (4)</b> 29:8;41:1;42:18; 64:10</p> <p><b>encouraged (1)</b> 33:23</p> <p><b>end (10)</b> 4:4;13:12;29:12; 36:5,6,7,13;45:15; 71:15;76:21</p> <p><b>ended (1)</b> 75:4</p>	<p><b>ends (1)</b> 36:8</p> <p><b>Energy (15)</b> 7:22,24;9:17;11:23; 12:6,10;13:24;14:2,5, 10;16:13;34:12; 51:25;58:22;62:15</p> <p><b>engagement (4)</b> 18:13,23;21:16; 22:1</p> <p><b>engineering (3)</b> 13:10;14:21;18:21</p> <p><b>Engineers (1)</b> 21:1</p> <p><b>enhancing (1)</b> 11:20</p> <p><b>enormously (1)</b> 35:5</p> <p><b>enough (2)</b> 38:6;76:5</p> <p><b>ensure (1)</b> 57:13</p> <p><b>entire (3)</b> 28:14;45:1;55:25</p> <p><b>environment (1)</b> 55:12</p> <p><b>environmental (39)</b> 4:17;6:16,19,21; 7:7;18:21;19:4,7,10, 11,14,16,18,20,23; 20:4;21:7;22:10,20; 24:14,15,24;25:4,6, 11,17,18;26:8,11,25; 27:6;28:3,4,7;37:23; 47:1;74:12;75:13,17</p> <p><b>equity (2)</b> 38:13;41:15</p> <p><b>era (1)</b> 39:4</p> <p><b>ERIC (2)</b> 50:10,10</p> <p><b>E-r-i-c (1)</b> 50:11</p> <p><b>especially (3)</b> 10:3;38:13;67:5</p> <p><b>essentially (2)</b> 8:5;73:6</p> <p><b>established (1)</b> 32:15</p> <p><b>et (1)</b> 50:20</p> <p><b>ethical (2)</b> 52:13,15</p> <p><b>etiquette (1)</b> 29:17</p> <p><b>evaluated (3)</b> 16:10;25:8;64:1</p> <p><b>evaluates (1)</b> 19:23</p> <p><b>Even (5)</b> 13:21;56:7;63:10; 71:24,25</p> <p><b>evening (8)</b></p>
---	---	---	--	--

<p>7:6;8:25;22:7; 39:15;42:23;47:5; 48:15;56:17 <b>everybody (7)</b> 3:1;4:25;6:9;30:7; 51:14;55:9;70:19 <b>everybody's (2)</b> 5:5,23 <b>everyone (3)</b> 7:6;22:8;30:3 <b>everyone's (1)</b> 76:21 <b>ex (1)</b> 33:15 <b>exactly (1)</b> 31:10 <b>Examples (3)</b> 25:22,23;57:20 <b>exceeded (1)</b> 7:21 <b>exchanges (1)</b> 41:6 <b>existing (8)</b> 7:19;17:11,13,15, 24;43:16;47:16;72:13 <b>expanding (1)</b> 17:14 <b>expansions (1)</b> 58:9 <b>expect (1)</b> 28:6 <b>expected (1)</b> 28:9 <b>expecting (2)</b> 33:14;60:2 <b>expensive (1)</b> 51:16 <b>experiencing (1)</b> 35:4 <b>experts (1)</b> 66:15 <b>explain (1)</b> 4:18 <b>exposure (1)</b> 31:9 <b>extension (1)</b> 18:6 <b>extent (1)</b> 68:10 <b>extraordinarily (1)</b> 51:16 <b>extremely (1)</b> 33:18</p>	<p>56:25 <b>fact (5)</b> 15:18;41:17;42:13; 46:11;68:12 <b>fairly (2)</b> 30:8;44:25 <b>faith (1)</b> 38:14 <b>fall (5)</b> 28:7,10,17;65:2; 66:25 <b>family (3)</b> 40:25;54:3;68:19 <b>fan (1)</b> 9:9 <b>far (5)</b> 17:20;48:6;58:10; 62:15;67:5 <b>farm (4)</b> 37:4,4,4,5 <b>federal (3)</b> 18:14;21:1,23 <b>feedback (3)</b> 18:17;20:12;22:1 <b>feel (15)</b> 5:22;6:25;30:13; 32:10;38:6,16,24,25; 44:5;55:7;56:3;58:21; 61:2;68:21;75:18 <b>feelings (1)</b> 71:2 <b>feels (4)</b> 38:17;39:5;59:11; 68:22 <b>feet (9)</b> 18:6;31:9,10,20; 46:5;49:4;53:19,19; 60:6 <b>few (4)</b> 19:24;20:19;21:18; 29:24 <b>file (4)</b> 58:5;66:22;74:18; 75:23 <b>filed (7)</b> 16:17;20:13;28:12; 30:19;35:11,15;42:12 <b>filing (2)</b> 24:22;77:3 <b>filings (1)</b> 66:9 <b>fill (1)</b> 38:20 <b>final (4)</b> 24:10,11;33:25; 48:8 <b>find (8)</b> 6:23;33:14,15;40:5, 9,18;57:22;75:25 <b>finding (1)</b> 75:24 <b>fired (2)</b> 13:18,24</p>	<p><b>firm (1)</b> 41:16 <b>first (12)</b> 7:23;9:24;26:25; 27:20;30:22;47:12; 50:13;58:5;60:4;64:5; 67:13;72:2 <b>five (3)</b> 6:4;65:12;70:12 <b>flexibility (2)</b> 12:8;14:18 <b>flexible (1)</b> 12:17 <b>flip (1)</b> 7:10 <b>flipping (1)</b> 57:21 <b>Floodwood (2)</b> 17:23;18:3 <b>floor (2)</b> 4:19;5:3 <b>flow (1)</b> 13:11 <b>flowing (1)</b> 12:19 <b>fly (2)</b> 47:13;60:23 <b>focuses (1)</b> 8:8 <b>folk (1)</b> 38:17 <b>folks (5)</b> 20:14;34:20;39:3; 61:11;68:4 <b>follow (2)</b> 65:24;74:22 <b>following (1)</b> 18:16 <b>food (2)</b> 32:5,14 <b>foot (2)</b> 18:7;37:15 <b>footprint (1)</b> 40:23 <b>foraging (1)</b> 32:3 <b>forced (1)</b> 60:15 <b>forcing (1)</b> 41:7 <b>forest (1)</b> 40:24 <b>forgive (1)</b> 58:19 <b>forgot (1)</b> 16:24 <b>form (1)</b> 74:20 <b>formal (1)</b> 22:5 <b>forward (4)</b> 11:5;39:12;41:21; 75:15</p>	<p><b>fossil (1)</b> 10:5 <b>found (1)</b> 55:2 <b>four (2)</b> 11:10;60:19 <b>fragmentation (1)</b> 23:1 <b>Frentz (1)</b> 34:12 <b>front (5)</b> 4:2;11:11;31:15; 46:12;56:24 <b>frustrated (1)</b> 35:5 <b>frustrations (1)</b> 35:9 <b>fuel (1)</b> 10:5 <b>further (3)</b> 10:2;25:8;26:10 <b>future (1)</b> 62:15</p>	<p>33:4 <b>gives (1)</b> 19:21 <b>giving (1)</b> 4:12 <b>glad (2)</b> 3:13,15 <b>glued (1)</b> 36:21 <b>Goals (2)</b> 7:22;62:18 <b>God (1)</b> 50:14 <b>goes (5)</b> 18:25;47:17;48:7; 53:18;71:1 <b>Good (11)</b> 7:6,15;22:7;35:23; 36:10;39:15;42:23; 48:15;49:2;56:17; 76:5 <b>Google (1)</b> 59:8 <b>government (4)</b> 21:21;40:10;41:8; 52:10 <b>governor (1)</b> 6:4 <b>Grand (5)</b> 17:21;36:15,16; 37:14;44:14 <b>gaps (1)</b> 9:25;55:20 <b>Great (2)</b> 3:2;18:17 <b>greater (1)</b> 44:9 <b>greed (2)</b> 38:19;46:23 <b>grid (16)</b> 9:12,13;10:14; 11:21,23;12:2,18,20; 16:4;33:18;44:8,18; 59:1;62:5,9;63:23 <b>grief (1)</b> 36:10 <b>ground (4)</b> 4:22;33:7;50:16; 68:19 <b>Group (3)</b> 21:11;30:14;34:14 <b>grow (1)</b> 55:14 <b>growing (1)</b> 12:9 <b>growth (9)</b> 44:11,13,14;62:19, 20,22,23;63:6,7 <b>guard (1)</b> 56:5 <b>guess (6)</b> 31:6;32:1;38:8; 39:8;44:2;67:18</p>
<b>F</b>			<b>G</b>	
<p><b>faced (1)</b> 61:7 <b>facilitates (1)</b> 12:7 <b>facilities (2)</b> 6:3;26:1 <b>facility (1)</b></p>			<p><b>gaining (1)</b> 45:12 <b>gal (1)</b> 65:4 <b>gaps (1)</b> 74:13 <b>garden (1)</b> 69:18 <b>gardener (1)</b> 68:8 <b>gardens (1)</b> 54:6 <b>gas (6)</b> 3:13;6:1;50:22; 51:2,3,6 <b>general (3)</b> 7:12;63:6,7 <b>generate (1)</b> 50:19 <b>generating (1)</b> 50:21 <b>generation (6)</b> 7:18;8:7;12:5; 13:18;58:21;62:16 <b>generator (1)</b> 10:17 <b>generators (2)</b> 10:5;12:3 <b>German (2)</b> 34:24,24 <b>gets (3)</b> 13:4;50:23;57:15 <b>gigantic (1)</b> 11:10 <b>Gilbertson (4)</b> 32:21;33:1,2,3 <b>G-i-l-b-e-r-t-s-o-n (1)</b></p>	

<p><b>guidelines (1)</b> 74:23</p> <p><b>guy (1)</b> 69:15</p> <p><b>guys (2)</b> 36:22;53:12</p> <p><b>guzzling (1)</b> 62:10</p>	<p>31:7;54:22,23,25; 56:6,11</p> <p><b>hear (9)</b> 3:2;4:25;5:6,21; 22:8;54:23,24;74:6; 76:6</p> <p><b>heard (7)</b> 9:11;30:7;34:17; 44:7;47:17;49:15; 74:2</p> <p><b>hearing (4)</b> 28:11,12;44:20; 76:3</p> <p><b>hearings (1)</b> 28:9</p> <p><b>heart (2)</b> 45:22;46:3</p> <p><b>heartache (1)</b> 68:18</p> <p><b>heavens (1)</b> 50:15</p> <p><b>heavily (1)</b> 20:19</p> <p><b>heavy (3)</b> 18:13,18;21:15</p> <p><b>held (3)</b> 3:17,18;28:9</p> <p><b>helicopter (1)</b> 70:1</p> <p><b>Hello (1)</b> 3:1</p> <p><b>help (8)</b> 5:18;7:1;23:10; 25:10;29:11;73:3; 75:24,25</p> <p><b>herbicide (1)</b> 67:2</p> <p><b>herbicides (3)</b> 67:23;68:6;72:6</p> <p><b>herbs (1)</b> 32:8</p> <p><b>Here's (3)</b> 8:10;36:18,21</p> <p><b>Hermantown (17)</b> 3:18;15:11;16:7; 36:12;38:9;39:18; 40:1;41:2,10;42:8; 46:1;62:7;64:17;71:3, 5,16;73:14</p> <p><b>Hi (2)</b> 51:21;60:1</p> <p><b>hide (1)</b> 35:13</p> <p><b>hiding (1)</b> 35:16</p> <p><b>high (8)</b> 8:10;17:11,13,15; 19:25;34:6;45:2;71:8</p> <p><b>higher (2)</b> 38:18;49:19</p> <p><b>highlight (1)</b> 74:15</p> <p><b>highlighted (3)</b></p>	<p>17:18;18:1;27:10</p> <p><b>Highway (3)</b> 31:3,24;65:6</p> <p><b>Historic (1)</b> 20:21</p> <p><b>history (5)</b> 11:12;13:4,7;34:21; 46:22</p> <p><b>holding (2)</b> 3:21;27:21</p> <p><b>hollow (1)</b> 68:10</p> <p><b>home (14)</b> 31:5;32:16;36:3; 39:17;46:4;51:1; 53:11;55:4,22,25; 60:19,20;68:11;77:19</p> <p><b>homeowner (1)</b> 38:10</p> <p><b>homeowners (1)</b> 67:19</p> <p><b>homes (3)</b> 40:25;46:8;54:4</p> <p><b>honest (2)</b> 42:2,2</p> <p><b>hope (3)</b> 49:22,23;67:11</p> <p><b>horrible (1)</b> 58:18</p> <p><b>host (1)</b> 18:15</p> <p><b>hosted (1)</b> 15:22</p> <p><b>hosting (1)</b> 27:19</p> <p><b>hotline (2)</b> 22:2,2</p> <p><b>hours (1)</b> 23:3</p> <p><b>house (10)</b> 9:7;15:21;31:10,20; 46:6;53:7;54:2,10; 56:7;60:15</p> <p><b>houses (3)</b> 18:16;21:20;53:11</p> <p><b>huge (1)</b> 36:25</p> <p><b>hum (2)</b> 49:9,12</p> <p><b>human (8)</b> 19:10,10;22:20; 24:15;25:3;26:7;47:1; 68:24</p> <p><b>humorous (1)</b> 64:19</p> <p><b>hundred (2)</b> 37:7;40:24</p> <p><b>hurled (1)</b> 50:15</p> <p><b>Hurry (1)</b> 36:6</p> <p><b>husband (2)</b> 31:14;39:23</p>	<p><b>HVDC (5)</b> 43:20,23;44:19; 45:6;71:14</p> <p><b>hyper (9)</b> 33:8;35:2;40:1,22; 41:9,11,18;59:9,16</p> <p style="text-align: center;"><b>I</b></p> <p><b>icing (1)</b> 37:10</p> <p><b>idea (2)</b> 36:1;37:12</p> <p><b>identifying (1)</b> 77:4</p> <p><b>Illinois (1)</b> 58:1</p> <p><b>immaterial (1)</b> 44:14</p> <p><b>immediately (1)</b> 10:1</p> <p><b>impact (6)</b> 19:20;20:11;56:3; 63:19;65:13;68:24</p> <p><b>impacted (3)</b> 53:6;67:9;68:16</p> <p><b>impacts (24)</b> 19:9,12,13;20:1,5,6, 18;22:20,22,23,24; 23:7,11,12;24:16,16; 25:4,7;26:8,13;31:7; 47:2;63:20;75:15</p> <p><b>imperative (1)</b> 10:14</p> <p><b>important (5)</b> 3:25;5:18;23:22; 38:25;77:15</p> <p><b>impressed (1)</b> 73:13</p> <p><b>inch (1)</b> 11:10</p> <p><b>include (9)</b> 22:23;23:2;24:14; 25:21,23;26:14;27:3; 34:1;75:16</p> <p><b>included (6)</b> 6:22;24:17;27:5; 33:18;48:20;77:10</p> <p><b>includes (2)</b> 10:9;23:15</p> <p><b>including (9)</b> 4:23;8:1;12:17; 26:9,21;46:3;58:10; 62:17;75:14</p> <p><b>inconsistent (1)</b> 14:25</p> <p><b>increase (3)</b> 14:16;62:8;63:10</p> <p><b>increased (2)</b> 13:18;44:18</p> <p><b>increasing (2)</b> 11:23;12:17</p> <p><b>indeed (1)</b></p>	<p>33:14</p> <p><b>independent (2)</b> 16:4;66:12</p> <p><b>independently (1)</b> 59:1</p> <p><b>indicating (1)</b> 65:21</p> <p><b>individual (9)</b> 10:17;16:5,14; 34:13;35:1;59:2; 62:21;63:5,22</p> <p><b>individuals (2)</b> 6:6;34:10</p> <p><b>industrial (1)</b> 8:2</p> <p><b>inform (2)</b> 5:20;22:18</p> <p><b>Information (11)</b> 3:4;24:15;26:21; 35:10,11,13,14;41:7; 74:4,24;77:4</p> <p><b>informative (2)</b> 73:24;77:15</p> <p><b>informed (3)</b> 5:13,19;38:6</p> <p><b>infrastructure (6)</b> 22:25;51:11,13,15; 72:9,14</p> <p><b>initiated (1)</b> 57:25</p> <p><b>innocuous (1)</b> 51:5</p> <p><b>in-person (1)</b> 3:17</p> <p><b>input (16)</b> 5:12;22:14,18; 23:10,18,19;24:8,9; 25:9;27:13,25;50:4; 70:8;75:19;76:6; 77:16</p> <p><b>instance (2)</b> 17:12;66:7</p> <p><b>instead (4)</b> 26:17;31:24;36:25; 51:11</p> <p><b>integration (1)</b> 10:4</p> <p><b>intelligently (1)</b> 75:6</p> <p><b>intended (1)</b> 68:1</p> <p><b>interactions (1)</b> 18:14</p> <p><b>interconnect (1)</b> 63:25</p> <p><b>interconnection (2)</b> 57:14;63:19</p> <p><b>interest (2)</b> 38:17,18</p> <p><b>interested (3)</b> 20:15,22;50:19</p> <p><b>interests (1)</b> 52:11</p>
--	--	---	--	---

<p><b>intimidating (1)</b> 11:9 <b>into (14)</b> 4:7;10:1;12:19; 13:4,13,19;15:3; 17:17;32:24;37:23; 51:2;55:1;74:3,14 <b>introduction (1)</b> 4:13 <b>invested (1)</b> 55:6 <b>involve (1)</b> 6:16 <b>involved (2)</b> 66:15;72:21 <b>involving (1)</b> 72:22 <b>Iron (7)</b> 3:5;8:11,17;11:3; 17:8,19;36:14 <b>ISA (6)</b> 8:12;15:14,19;16:8; 18:7;20:3 <b>issue (6)</b> 6:2,7;27:25;34:15; 50:1;67:9 <b>issued (1)</b> 28:7 <b>issues (1)</b> 68:6 <b>Itasca (1)</b> 44:15</p>	<p>58:14;59:22;61:18; 64:4;65:15;66:1;67:3, 11;68:25;69:8;70:7, 16;73:9;74:18;75:12; 76:18 <b>join (1)</b> 3:15 <b>joined (1)</b> 6:7 <b>joining (1)</b> 3:3 <b>journey (1)</b> 13:22 <b>July (1)</b> 27:24 <b>June (1)</b> 27:24 <b>justification (3)</b> 33:17;44:5,24 <b>justified (1)</b> 59:1</p>	<p><b>known (1)</b> 34:23 <b>KRISTI (2)</b> 54:19,19 <b>K-r-i-s-t-i (1)</b> 54:20 <b>kV (2)</b> 43:10,13 <b>KVA (1)</b> 36:19</p>	<p>33:24;73:15 <b>leave (2)</b> 22:3;39:8 <b>left (2)</b> 30:1;70:11 <b>legalities (1)</b> 73:17 <b>lengths (1)</b> 25:23 <b>lengthy (1)</b> 24:20 <b>less (1)</b> 49:20 <b>level (5)</b> 8:10;19:6,25;21:1,2 <b>libraries (1)</b> 24:19 <b>life (8)</b> 23:8;31:7;32:2,14; 55:1;66:5,18,20 <b>light (1)</b> 64:19 <b>likely (1)</b> 28:17 <b>limit (13)</b> 13:6,9,11,11,16; 14:14,22,25;15:5,7; 29:23;45:10;58:25 <b>limiting (1)</b> 23:3 <b>line (33)</b> 3:6,20;6:12;8:12, 15;17:25;26:18;31:9; 36:5,8;37:1,9,17; 42:7;44:6;47:15,16, 25,25;52:5;53:9,20, 21;56:21,22,57:3; 58:4;60:10;62:5;65:5; 72:5,22,23 <b>lines (23)</b> 7:20;9:25;17:11; 31:10,18;32:11;34:7; 36:19;43:6,11,13,15, 16;46:9,14;47:16; 57:10;60:9,25;61:8,9; 70:4;72:14 <b>link (1)</b> 29:3 <b>list (3)</b> 19:21;29:18;30:22 <b>listed (1)</b> 21:6 <b>listen (1)</b> 6:8 <b>listened (1)</b> 49:12 <b>lists (1)</b> 19:11 <b>literally (1)</b> 31:22 <b>litigation (1)</b> 50:1 <b>little (15)</b></p>	<p>3:12;7:17;11:9; 13:8;24:3;31:2;32:24; 39:6;46:4,14;55:1; 58:22;65:4,4;68:23 <b>live (10)</b> 31:2,8;33:7;42:3; 46:9,10;47:2;49:3; 52:12;67:19 <b>lived (4)</b> 39:22;46:8;49:11; 69:23 <b>lives (5)</b> 38:9;45:23;46:4; 68:18;77:13 <b>living (1)</b> 46:13 <b>load (6)</b> 57:13;62:19,20,22, 23;63:6 <b>loads (2)</b> 62:21;63:5 <b>local (15)</b> 5:22;12:18;15:7,8; 21:21,22;23:11,18; 24:19;25:5;26:8; 44:10;57:25;66:14,15 <b>located (2)</b> 39:17,21 <b>location (1)</b> 49:11 <b>locations (1)</b> 3:19 <b>logical (1)</b> 74:24 <b>long (13)</b> 8:15;9:16;10:15,20; 11:15;16:2,13;30:1; 31:13;35:24;37:17; 63:9;64:15 <b>look (23)</b> 20:16;24:23;29:1; 37:23;45:3;49:22; 50:24;55:23;57:2; 62:18,19,20,21,22,23, 25;65:1,2,2;73:2; 74:3,7,8 <b>looked (4)</b> 16:12;21:7;57:16; 63:5 <b>looking (14)</b> 10:2;14:19;26:5; 33:20;56:24;57:22; 59:11,12;63:21,23; 73:5,25;74:4,19 <b>looks (4)</b> 19:17,18;32:23; 62:15 <b>Loop (3)</b> 38:11;67:20;71:14 <b>lose (2)</b> 53:18;55:5 <b>losing (1)</b> 56:8</p>
<b>J</b>	<p style="text-align: center;"><b>K</b></p> <p><b>KAREN (6)</b> 70:23,23;71:21; 72:3,19;73:8 <b>K-a-r-e-n (1)</b> 70:24 <b>Kathryn (2)</b> 51:21,21 <b>K-a-t-h-r-y-n (1)</b> 51:22 <b>KATHY (6)</b> 45:18,18;73:11,11; 74:22;76:16 <b>K-a-t-h-y (2)</b> 45:19;73:12 <b>keep (5)</b> 39:9;47:21;64:19; 69:3;77:5 <b>key (2)</b> 24:25;27:8 <b>kick (1)</b> 4:21 <b>kid (1)</b> 65:4 <b>kids (4)</b> 55:20,21;56:1; 60:19 <b>kilovolt (7)</b> 3:6;6:12;8:15; 17:25;18:5,11;43:6 <b>kind (7)</b> 10:3;11:19;13:20; 46:11;49:18;62:14; 64:18 <b>kit (1)</b> 73:20 <b>knew (1)</b> 46:8 <b>knowledgeable (1)</b> 56:9</p>	<p style="text-align: center;"><b>L</b></p> <p><b>lack (1)</b> 71:2 <b>lady (1)</b> 35:23 <b>lake (3)</b> 47:2,3;55:9 <b>lakeside (1)</b> 45:23 <b>land (15)</b> 17:13,15;20:8,9; 21:9;31:19;32:3,3; 37:13,13;40:14,22; 68:3;71:4,25 <b>landline (1)</b> 6:2 <b>landowner (1)</b> 60:6 <b>landowners (3)</b> 18:22;21:22;60:5 <b>LaPOINTE (4)</b> 61:24,25;63:8;64:3 <b>L-a-P-o-i-n-t-e (1)</b> 61:25 <b>large (9)</b> 6:3;14:9;30:14; 38:20;41:20;57:13; 60:13;62:21;63:5 <b>largely (3)</b> 11:8;17:14;18:4 <b>larger (4)</b> 10:12;49:7,17; 67:22 <b>largest (1)</b> 8:1 <b>last (9)</b> 7:22;9:7;13:22; 15:4;21:5;39:16; 44:17;52:2;69:25 <b>later (5)</b> 7:4;12:22;16:21; 24:2;26:2 <b>launch (1)</b> 21:16 <b>law (2)</b> 24:13;51:11 <b>lean (1)</b> 14:10 <b>learn (1)</b> 6:9 <b>least (2)</b></p>		

<p><b>lost (2)</b> 38:12;67:22</p> <p><b>lot (20)</b> 11:25;12:3,4;13:21; 14:3;15:10;16:16; 21:6;29:2;35:8;37:18, 19;44:8;47:22;48:1; 55:7,10;68:17;74:8; 75:18</p> <p><b>lots (1)</b> 21:20</p> <p><b>Louis (11)</b> 3:5;8:11,17;11:3; 17:7,22;18:2,8;43:9; 44:11,15</p> <p><b>love (4)</b> 46:19,23;54:13; 55:22</p> <p><b>lovely (1)</b> 4:6</p> <p><b>low (5)</b> 32:24;44:13;45:1; 49:9,9</p> <p><b>lower (1)</b> 12:4</p> <p><b>LRTP (1)</b> 14:8</p> <p><b>LYNN (2)</b> 48:15;49:2</p> <p><b>L-y-n-n (1)</b> 48:16</p>	<p><b>map (3)</b> 9:25;17:19;73:6</p> <p><b>maps (2)</b> 50:24,24</p> <p><b>mark (1)</b> 35:20</p> <p><b>Maryland (1)</b> 58:1</p> <p><b>MASON (2)</b> 56:17,18</p> <p><b>M-a-s-o-n (1)</b> 56:18</p> <p><b>materialize (1)</b> 15:24</p> <p><b>materials (1)</b> 3:24</p> <p><b>matter (1)</b> 76:6</p> <p><b>mattered (1)</b> 53:16</p> <p><b>MAXON (2)</b> 3:1;4:10</p> <p><b>may (4)</b> 15:21;21:17;50:2; 66:11</p> <p><b>maybe (8)</b> 24:24;55:19;65:6,6, 10,10;73:1,15</p> <p><b>Mayor (1)</b> 41:4</p> <p><b>mean (3)</b> 26:1;35:16;37:12</p> <p><b>means (4)</b> 17:12;34:24;66:5; 72:3</p> <p><b>meant (1)</b> 34:25</p> <p><b>meanwhile (1)</b> 45:11</p> <p><b>measures (5)</b> 23:2;25:7;26:9; 75:16,20</p> <p><b>medicines (1)</b> 32:9</p> <p><b>meet (5)</b> 3:14;12:9;16:13; 25:20;26:16</p> <p><b>Meeting (22)</b> 3:4,15,17,22,23;4:4, 10,22;6:8;10:20; 12:23;27:19;28:20, 23,23;38:7;41:2; 54:14;56:14;61:21; 76:22,23</p> <p><b>meetings (8)</b> 3:19;9:7;15:22; 27:21;46:3;66:16; 76:12;77:8</p> <p><b>meets (1)</b> 9:15</p> <p><b>Megan (2)</b> 60:1,1</p> <p><b>M-e-g-a-n (1)</b></p>	<p>60:2</p> <p><b>megawatts (1)</b> 7:18</p> <p><b>members (1)</b> 74:11</p> <p><b>mental (5)</b> 54:22,23,25;56:5, 11</p> <p><b>mentality (1)</b> 68:14</p> <p><b>mention (3)</b> 43:6;59:10;71:14</p> <p><b>mentioned (10)</b> 5:4;6:11;8:17;19:3, 16;21:15;25:13; 30:13;43:4;65:21</p> <p><b>message (2)</b> 69:19,22</p> <p><b>messaging (1)</b> 47:3</p> <p><b>met (3)</b> 7:21;34:11;46:2</p> <p><b>methods (1)</b> 26:12</p> <p><b>middle (3)</b> 31:19;40:23;55:17</p> <p><b>midway (1)</b> 49:5</p> <p><b>midwest (5)</b> 11:21;12:10;33:24; 44:9;62:10</p> <p><b>might (7)</b> 6:25;25:22,23; 55:22;60:3;62:19; 72:24</p> <p><b>mike (4)</b> 30:10;32:24,25; 70:21</p> <p><b>mile (5)</b> 8:14;33:8;35:2; 39:20,22</p> <p><b>miles (5)</b> 7:19;34:6;37:13; 38:9;60:12</p> <p><b>milestones (1)</b> 27:8</p> <p><b>MILUN (2)</b> 51:21,22</p> <p><b>M-i-l-u-n (1)</b> 51:22</p> <p><b>mind (4)</b> 36:21;37:16;47:20; 77:5</p> <p><b>mine (1)</b> 37:14</p> <p><b>minimize (3)</b> 19:12;26:12;74:5</p> <p><b>Minnesota (47)</b> 4:11;5:10,25;7:8, 13,14,21;8:13;9:2; 13:19,22;14:18; 20:10;21:3;24:21; 33:16;34:11;38:12;</p>	<p>39:2;40:10;41:8,8,13, 15,18;42:12;43:2; 44:4,25;45:12,25; 51:11,24;53:12;57:1; 58:12,13,23;59:7,18; 60:16;61:3,12;68:4; 69:12;71:1;75:2</p> <p><b>minute (2)</b> 30:1;70:12</p> <p><b>minutes (5)</b> 29:24;36:7;65:12; 70:11,18</p> <p><b>MISO (24)</b> 9:9,12,20;10:1,11, 22,23;11:13,14;14:8; 15:1,15,25;16:10; 43:21,24;44:8;50:14, 16,18,18;62:13;63:2, 21</p> <p><b>MISO's (3)</b> 10:13;62:5,7</p> <p><b>missed (1)</b> 76:4</p> <p><b>missing (3)</b> 25:2,5;76:2</p> <p><b>mistakes (1)</b> 64:23</p> <p><b>mistrust (2)</b> 38:12;47:15</p> <p><b>mitigate (4)</b> 19:13;20:5;24:16; 26:13</p> <p><b>mitigation (7)</b> 20:10,12;23:2;25:7; 26:9;75:15,20</p> <p><b>modernization (5)</b> 43:20,24;44:19; 45:6;71:15</p> <p><b>MODICH (4)</b> 53:1,2;54:19,19</p> <p><b>M-o-d-i-c-h (2)</b> 53:2;54:20</p> <p><b>mom (3)</b> 31:5;46:15;55:3</p> <p><b>moment (2)</b> 34:20;38:24</p> <p><b>money (4)</b> 37:1;46:23;55:7,10</p> <p><b>monitor (1)</b> 66:12</p> <p><b>monitoring (1)</b> 68:11</p> <p><b>month (1)</b> 55:2</p> <p><b>more (20)</b> 4:19;10:5;11:22; 12:5,17,19,24;14:18; 16:21;23:5;24:9; 31:20;37:18;47:3; 54:14;62:23;65:16; 70:25;74:3;75:24</p> <p><b>MORNINGSTAR (1)</b> 73:22</p>	<p><b>most (4)</b> 46:1;47:2;76:14,15</p> <p><b>move (5)</b> 11:5;12:8;30:8; 41:21;60:16</p> <p><b>moved (2)</b> 32:15;60:17</p> <p><b>movement (1)</b> 45:25</p> <p><b>Moving (1)</b> 6:10</p> <p><b>MP (3)</b> 10:21;49:13,23</p> <p><b>MPUC (2)</b> 71:20;72:1</p> <p><b>Mrs (1)</b> 73:23</p> <p><b>much (6)</b> 3:16;13:11;15:23; 50:3;52:21;53:7</p> <p><b>multiple (1)</b> 61:5</p> <p><b>municipalities (1)</b> 8:2</p> <p><b>mushrooms (1)</b> 32:6</p> <p><b>must (1)</b> 24:14</p> <p><b>MVA (11)</b> 13:6,9,9,10;14:14, 22,25;15:4,7;45:7; 58:24</p> <p><b>myself (4)</b> 31:13;33:10;48:18; 60:14</p>
<b>M</b>		<b>N</b>		
<p><b>magic (1)</b> 75:10</p> <p><b>mail (1)</b> 29:6</p> <p><b>maintain (3)</b> 10:14;14:22;72:13</p> <p><b>maintained (2)</b> 14:23;44:16</p> <p><b>maintaining (1)</b> 67:24</p> <p><b>maintenance (1)</b> 71:9</p> <p><b>majority (1)</b> 47:16</p> <p><b>makes (3)</b> 31:21;54:21;68:20</p> <p><b>making (5)</b> 5:19;9:13;22:15; 23:25;28:15</p> <p><b>management (1)</b> 21:10</p> <p><b>manager (4)</b> 4:17;9:1;22:10; 75:13</p> <p><b>mandate (1)</b> 58:23</p> <p><b>many (6)</b> 15:18;31:16;36:22; 42:8;46:8;61:12</p>	<p><b>naivete (1)</b> 73:18</p> <p><b>name (36)</b> 4:10;7:7;8:25;22:9; 29:22;30:22;32:23; 33:2;35:24;38:1; 39:14,16;42:22,24; 45:18;47:9;48:14; 50:9,10;51:20;53:1; 54:17;56:16,17; 58:15,16;59:25; 61:23,24;64:13; 65:17;67:22;69:9,10; 70:22;73:10</p> <p><b>national (1)</b> 50:22</p> <p><b>Nations (2)</b> 20:23;21:21</p> <p><b>nation's (1)</b> 8:1</p> <p><b>native (1)</b> 32:8</p> <p><b>natural (3)</b> 3:12;6:1;21:3</p> <p><b>NDA's (2)</b></p>			

<p>48:23;49:1 <b>near (2)</b> 36:15,16 <b>necessarily (2)</b> 35:12,15 <b>necessary (2)</b> 27:1;75:18 <b>need (35)</b> 6:14,15,17;11:8,11; 12:8,11,25;14:11,12; 15:7,24;25:15,16,20; 26:10,17;28:16; 33:17;34:5;44:3,10; 45:2,9,9;46:19;52:9, 10,18;59:2,12;62:5,8; 70:2;73:19 <b>needed (8)</b> 15:1;25:11;28:4,8; 58:3,8;61:10;64:19 <b>needs (14)</b> 9:16;10:20;11:8; 15:1,8;16:5,10;39:5; 44:3;62:16;63:4,11, 24;68:21 <b>negate (1)</b> 56:8 <b>neighbor (2)</b> 54:3,4 <b>neighborhoods (1)</b> 34:16 <b>neighbors (3)</b> 38:15;48:18;61:5 <b>new (13)</b> 20:3;22:25;34:6; 38:13;39:4;49:6,17; 53:21;58:1;61:9;71:6; 72:8,21 <b>next (21)</b> 6:10;7:10;10:2; 11:6;13:1;15:3,9; 18:19;21:24;24:4,12; 26:3,20;29:14;32:21; 35:18,21;37:25;53:6; 54:2,9 <b>night (1)</b> 49:10 <b>noise (2)</b> 22:24;60:21 <b>non (1)</b> 25:25 <b>north (3)</b> 14:17;17:22;37:13 <b>northeast (1)</b> 7:16 <b>northwest (1)</b> 17:20 <b>note (5)</b> 3:25;23:22;33:25; 38:25;41:13 <b>notes (1)</b> 29:16 <b>nother (1)</b> 65:12</p>	<p><b>notice (1)</b> 74:1 <b>November (1)</b> 33:12 <b>number (3)</b> 21:23;22:2,5 <b>numbers (1)</b> 3:7</p> <p style="text-align: center;"><b>O</b></p> <p><b>obligation (2)</b> 10:21;11:5 <b>observation (1)</b> 51:9 <b>obstructed (2)</b> 60:3,20 <b>obviously (2)</b> 18:18;60:21 <b>occasions (1)</b> 49:13 <b>occur (1)</b> 28:17 <b>odd (1)</b> 72:19 <b>off (5)</b> 4:13,21;7:5;34:8; 75:19 <b>offering (1)</b> 74:23 <b>Office (1)</b> 20:22 <b>officially (1)</b> 27:18 <b>often (1)</b> 20:21 <b>Ofentimes (1)</b> 33:5 <b>Ohio (1)</b> 58:1 <b>old (4)</b> 40:24;46:8;55:19; 64:22 <b>Once (7)</b> 30:3;47:15,17,24; 60:23;61:2;68:22 <b>One (23)</b> 3:25;5:3,8;12:1,3; 13:2,3;14:7;17:18; 29:17;35:9;36:23; 39:12;40:20;47:17, 18,25;49:15;54:21; 55:2;57:20;59:11,14 <b>ones (2)</b> 6:6;47:18 <b>ongoing (3)</b> 71:4;72:23;73:4 <b>online (3)</b> 24:20;29:3;53:4 <b>only (8)</b> 14:7;27:12;36:6; 44:10;48:9;58:3,8; 70:11</p>	<p><b>open (18)</b> 4:19;9:7;15:21; 18:15;21:20;27:22; 28:20;29:15,19;30:4, 21;39:11;42:9;52:24; 53:11;64:6,11,12 <b>operate (1)</b> 72:13 <b>operating (2)</b> 8:6;11:22 <b>operator (1)</b> 9:12 <b>opinion (1)</b> 44:2 <b>opportunities (1)</b> 27:11 <b>opportunity (7)</b> 16:19;24:1;27:12; 30:7;45:20;53:5;75:9 <b>options (1)</b> 64:9 <b>orange (1)</b> 17:18 <b>orchard (2)</b> 55:14;68:8 <b>orchards (1)</b> 54:6 <b>order (3)</b> 50:1;72:2;73:20 <b>Organization (1)</b> 31:8 <b>originally (1)</b> 13:14 <b>others (1)</b> 4:23 <b>otherwise (1)</b> 36:4 <b>ours (1)</b> 54:6 <b>out (28)</b> 3:15;9:20;10:2; 11:20;12:5;22:12; 29:8;32:17;35:9;36:3, 20;40:5,18;46:14; 52:14;55:2;60:15; 61:6;63:6,21;65:2; 69:3,13,16,20,25; 70:5;77:13 <b>outlined (2)</b> 10:10;44:4 <b>outlines (1)</b> 27:7 <b>outlook (1)</b> 62:14 <b>outside (3)</b> 17:21;31:22;42:16 <b>outweigh (1)</b> 11:15 <b>over (23)</b> 5:8;7:4,17;9:8,16; 10:14;12:2;13:17,22; 14:1;15:19;16:13; 18:19;29:24;32:6,8;</p>	<p>39:19;43:5;54:10; 57:19,25;58:10;68:6 <b>overhead (1)</b> 8:15 <b>overtake (1)</b> 18:4 <b>overtaking (1)</b> 17:14 <b>overview (5)</b> 5:24;7:9,12;8:10; 24:5 <b>own (5)</b> 43:18;51:13;56:5; 71:23;72:1 <b>owned (1)</b> 59:7 <b>owner (2)</b> 59:9;68:15 <b>owns (1)</b> 59:8</p> <p style="text-align: center;"><b>P</b></p> <p><b>page (3)</b> 24:21;75:24,25 <b>pants (1)</b> 64:24 <b>paragraph (1)</b> 33:17 <b>paralyze (1)</b> 34:25 <b>parents (1)</b> 46:17 <b>part (16)</b> 10:12,23;11:11,11; 12:10;14:15;17:4; 19:5;20:9;26:5;34:7; 43:24;59:5;63:16; 67:20,23 <b>parte (1)</b> 33:15 <b>participate (1)</b> 5:14 <b>participation (1)</b> 22:14 <b>particular (4)</b> 13:3;38:24;72:17; 73:7 <b>parties (2)</b> 50:19;66:12 <b>pass (3)</b> 4:13,15;8:20 <b>passed (2)</b> 57:19;59:20 <b>past (2)</b> 51:12;68:7 <b>path (3)</b> 3:20;9:20;69:14 <b>patience (1)</b> 35:5 <b>pave (1)</b> 40:21 <b>pay (5)</b></p>	<p>51:10,13,14;57:14; 63:20 <b>paying (4)</b> 45:11;59:13,18,19 <b>pencil (1)</b> 36:3 <b>Pennsylvania (1)</b> 58:1 <b>people (19)</b> 5:7;29:18;31:16; 37:8,19;39:19;40:8; 42:2;46:1,22;48:2; 52:11;59:24;68:18; 71:2;73:14,21;74:22; 75:5 <b>people's (3)</b> 47:22;54:25;56:11 <b>percent (6)</b> 7:24;13:24;14:2; 17:11;44:13;59:8 <b>percentage (2)</b> 59:19;62:25 <b>performing (1)</b> 67:4 <b>period (14)</b> 5:3;23:17;25:2; 26:22;27:22;28:10, 11;29:12;42:10,15, 17;64:11;76:4;77:6 <b>permit (40)</b> 4:18;5:13,20,20; 6:7,14,15;17:3,4; 19:5;22:19;23:7,14, 15,19,20,23;24:2,6,8, 9,11;25:14;26:15; 27:3,9;28:1,6,16,19; 34:16;48:8;50:5,6; 66:11;67:5;72:11,18; 75:20,21 <b>permits (4)</b> 6:3;24:13;71:20; 72:1 <b>permitted (12)</b> 13:15;23:9;48:7; 66:3,20;67:13;71:13, 18,24;72:6,15,24 <b>permittee (1)</b> 67:13 <b>permitting (9)</b> 5:16;11:1;18:19,20; 22:17;23:13;29:10; 48:6,11 <b>person (4)</b> 5:8;39:12;45:22; 46:7 <b>personal (1)</b> 77:4 <b>personally (1)</b> 30:8 <b>perspective (1)</b> 14:21 <b>pesticide (1)</b> 67:1</p>
---	---	---	---	--

<p><b>pesticides (1)</b> 68:7</p> <p><b>PETERSON (7)</b> 45:18,19;73:11,11, 23:74;22;76:16</p> <p><b>P-e-t-e-r-s-o-n (2)</b> 45:19;73:12</p> <p><b>petition (3)</b> 16:17;41:14;42:11</p> <p><b>phase (3)</b> 10:2;66:8;71:19</p> <p><b>phone (2)</b> 22:2,5</p> <p><b>phones (1)</b> 62:24</p> <p><b>physical (1)</b> 29:6</p> <p><b>pick (1)</b> 69:22</p> <p><b>piece (2)</b> 18:23;59:14</p> <p><b>pinch (1)</b> 55:24</p> <p><b>place (7)</b> 12:4,4;13:13;16:18; 48:9;51:8;53:18</p> <p><b>plan (4)</b> 20:12,14;21:11; 43:25</p> <p><b>planning (5)</b> 9:2,23;10:2;62:14; 63:12</p> <p><b>plans (2)</b> 23:4;67:6</p> <p><b>plant (4)</b> 50:25;51:3,7;55:13</p> <p><b>plants (2)</b> 50:22;51:2</p> <p><b>platform (1)</b> 46:20</p> <p><b>plays (1)</b> 10:18</p> <p><b>plea (2)</b> 46:25;53:23</p> <p><b>pleading (1)</b> 64:18</p> <p><b>please (21)</b> 4:23;7:11;30:2; 42:4,21,21;43:7;47:9; 48:14;50:9;51:20; 53:23;54:18;56:16; 58:15,18;59:25; 65:17;69:2;70:22; 73:10</p> <p><b>plenty (1)</b> 64:22</p> <p><b>plus (1)</b> 9:14</p> <p><b>pm (4)</b> 3:23;29:13;76:20; 77:20</p> <p><b>pockets (1)</b> 38:20</p>	<p><b>podium (1)</b> 29:21</p> <p><b>point (13)</b> 11:19;15:4;16:6; 17:22;18:3;20:8; 23:24;24:2;33:13; 34:4;55:25,25;71:16</p> <p><b>points (2)</b> 9:4;12:24</p> <p><b>poles (4)</b> 46:5;70:4;71:4,6</p> <p><b>policies (2)</b> 57:16;62:17</p> <p><b>policy (1)</b> 57:16</p> <p><b>politely (1)</b> 29:25</p> <p><b>Pollution (1)</b> 21:4</p> <p><b>population (1)</b> 44:11</p> <p><b>populations (1)</b> 44:16</p> <p><b>portfolio (14)</b> 9:9,24;10:12,13,16, 18,19,23;11:14,16; 12:11,15;13:24;14:10</p> <p><b>portion (4)</b> 7:2,15,16;17:20</p> <p><b>possible (3)</b> 5:20;14:21;52:13</p> <p><b>possibly (1)</b> 34:21</p> <p><b>postpone (1)</b> 38:6</p> <p><b>potential (10)</b> 18:16,22;20:1,5; 26:7,13;47:1;58:7; 62:7,21</p> <p><b>potentially (1)</b> 68:16</p> <p><b>Power (49)</b> 7:8,13,18;8:13;9:2; 12:8,19;13:10,11,22; 31:18;37:9,17;38:12; 39:5,7;41:9;42:12; 43:2;44:4;45:10,12, 25;46:5,9,14,24; 50:19;53:9,12,20,21; 57:1;58:13;59:7,18; 60:10,16;61:4,8,12; 62:10;63:10;68:4; 69:12;70:4;71:1,4; 75:2</p> <p><b>Power's (4)</b> 7:14;41:13,15,19</p> <p><b>practical (1)</b> 26:12</p> <p><b>practices (2)</b> 40:10;41:8</p> <p><b>preferred (1)</b> 50:21</p> <p><b>preliminary (1)</b></p>	<p>26:23</p> <p><b>prepare (4)</b> 6:19;19:4;25:12,17</p> <p><b>prepared (3)</b> 6:21;38:4;62:1</p> <p><b>presence (1)</b> 47:5</p> <p><b>present (1)</b> 74:24</p> <p><b>presentation (4)</b> 7:3;16:24;44:8; 65:20</p> <p><b>presented (2)</b> 38:15;61:2</p> <p><b>presenters (1)</b> 4:24</p> <p><b>Preservation (1)</b> 20:22</p> <p><b>pretty (3)</b> 7:15;20:19;44:13</p> <p><b>prevalent (1)</b> 10:6</p> <p><b>previous (1)</b> 60:4</p> <p><b>previously (4)</b> 5:4;71:13,18;72:15</p> <p><b>price (1)</b> 45:12</p> <p><b>primarily (1)</b> 20:2</p> <p><b>prior (1)</b> 67:7</p> <p><b>private (3)</b> 38:13;41:15;50:23</p> <p><b>probably (2)</b> 9:7;74:25</p> <p><b>problem (2)</b> 49:8;50:23</p> <p><b>problems (1)</b> 46:13</p> <p><b>proceeding (2)</b> 16:15;41:22</p> <p><b>proceedings (3)</b> 6:17;25:16;77:20</p> <p><b>process (38)</b> 4:19;5:16;7:4; 11:13;19:6;21:12,16, 19;22:5,15,17,18; 23:13,14,25;24:2; 26:6;27:9,15,18,20; 29:10;35:6;42:8; 45:24;48:6;50:12,22; 52:2,12;63:19,24; 65:7,22;66:19;67:15; 68:3;77:14</p> <p><b>produce (1)</b> 16:12</p> <p><b>produced (1)</b> 11:24</p> <p><b>producing (1)</b> 9:17</p> <p><b>profession (1)</b> 54:22</p>	<p><b>professor (1)</b> 51:23</p> <p><b>program (1)</b> 52:1</p> <p><b>progress (2)</b> 21:19;56:6</p> <p><b>project (123)</b> 3:6,8;4:15,18;5:11, 17;6:11,23;7:9;8:3, 12;9:3,4,24;10:10,12, 18,22;11:4,7;12:14, 25;13:3,12;14:15,15, 16,20,23,25;15:2,14, 18,19,23;16:1,9;17:3; 18:7,12;19:1,9,15; 21:17,17;22:3,4,21; 23:8,16,21,24;24:7, 21;25:14,19,20;26:1, 17;27:5,8;30:19; 33:11;38:11,24; 39:20,22;40:1,12,16, 17,20;41:9,11,20; 42:14;43:4,20,21,24; 44:20;45:3,6;47:13; 48:7,10;50:13;53:14; 55:2;56:9,21,22;57:7; 58:4,6;60:9,11,15; 61:15;62:6;66:2,3,5,6, 8,17,18,20,21;67:9, 21;68:22;71:14,15,16, 19,22,24;72:2,9,17, 23;75:13</p> <p><b>projected (1)</b> 34:2</p> <p><b>projections (1)</b> 63:9</p> <p><b>projects (16)</b> 10:9,24;16:2;40:13; 42:3;57:3,18,25;58:2, 8;60:24;71:12,17; 72:15;73:4;76:9</p> <p><b>promise (1)</b> 76:7</p> <p><b>properties (1)</b> 61:8</p> <p><b>property (13)</b> 39:21;47:22;48:3; 49:14,21;54:8;55:6, 10;61:10,20;67:20, 22;68:15</p> <p><b>proposal (4)</b> 16:9;17:24;18:4; 53:17</p> <p><b>proposed (28)</b> 3:5,20;4:17;5:11; 6:11,22;15:11;16:4,7, 16;17:5,10,16,21; 18:10;19:8;23:21; 25:19;26:10,17;33:8; 35:2;38:10;51:4,6; 58:25;61:9;72:17</p> <p><b>proposing (4)</b> 8:14;36:24;71:7,8</p>	<p><b>propriety (1)</b> 39:23</p> <p><b>protect (1)</b> 46:17</p> <p><b>protecting (1)</b> 56:5</p> <p><b>provide (10)</b> 4:1,14;5:24;7:9; 22:17;26:22;27:12; 28:22;37:8;44:5</p> <p><b>provided (3)</b> 29:3;44:24;61:11</p> <p><b>providing (2)</b> 5:14;23:10</p> <p><b>Public (32)</b> 3:4,7,22;4:11;5:10, 12,25;6:18;18:15,15, 23;20:7;22:10;24:8, 21;27:11,19,21,24; 28:9,11,13,20;29:15; 34:15;35:13;40:14; 52:11;57:12;74:20; 76:3;77:2</p> <p><b>publicly (1)</b> 50:20</p> <p><b>PUC (2)</b> 16:23;72:12</p> <p><b>pull (1)</b> 64:24</p> <p><b>pulled (2)</b> 74:18;77:1</p> <p><b>purchase (1)</b> 67:25</p> <p><b>purchasing (1)</b> 75:4</p> <p><b>purpose (4)</b> 10:13;14:8,16,24</p> <p><b>purview (1)</b> 55:1</p> <p><b>put (9)</b> 13:13;16:6;31:23; 36:25;37:3;51:3; 56:10,10;64:7</p> <p><b>putting (1)</b> 32:10</p> <p><b>puzzle (1)</b> 59:15</p>
<b>Q</b>				
				<p><b>quantifies (1)</b> 11:14</p> <p><b>quantify (1)</b> 12:16</p> <p><b>quarter (2)</b> 39:19,22</p> <p><b>quick (5)</b> 4:9;36:22;70:10,12, 14</p> <p><b>quite (3)</b> 20:3;24:19;49:7</p>

	16:3;34:10	22:13	31:25	17:22
<b>R</b>	<b>recess (1)</b> 70:15	<b>relocated (1)</b> 61:13	<b>residents (2)</b> 39:1;41:4	<b>Road (4)</b> 34:9;39:17;49:3,5
<b>raise (1)</b> 36:22	<b>recognize (1)</b> 33:9	<b>rely (1)</b> 77:16	<b>resiliency (1)</b> 12:19	<b>Rock (3)</b> 41:16;59:8;75:3
<b>RALPH (3)</b> 69:6,10,11	<b>recommend (1)</b> 76:13	<b>remain (1)</b> 27:22	<b>resistance (1)</b> 35:1	<b>role (2)</b> 10:18;76:8
<b>R-a-l-p-h (1)</b> 69:11	<b>recommendation (1)</b> 74:16	<b>remarks (1)</b> 58:19	<b>resource (2)</b> 21:9;62:15	<b>room (8)</b> 4:6,7;29:1,5,8; 30:15;42:14;76:24
<b>rambling (1)</b> 39:9	<b>recommendations (1)</b> 74:9	<b>remember (3)</b> 15:21;33:20;68:2	<b>resources (18)</b> 10:6;19:10,11,19, 22,24;20:2,17,17,18, 20,24;21:3,6,8;74:6, 10,13	<b>Rose (1)</b> 30:23
<b>ran (1)</b> 68:9	<b>recommended (1)</b> 31:8	<b>reminder (2)</b> 32:22;38:1	<b>respect (2)</b> 16:14;76:21	<b>rough (1)</b> 36:3
<b>Range (7)</b> 3:5;8:11,17;11:3; 17:8,19;36:14	<b>reconsideration (1)</b> 41:14	<b>removal (1)</b> 14:14	<b>respectful (1)</b> 4:23	<b>round (4)</b> 32:7;52:24;64:5,7
<b>rapid (2)</b> 62:9;63:10	<b>record (8)</b> 5:12;22:15;26:21; 28:15;30:18;32:20; 38:23;61:19	<b>remove (3)</b> 14:12;58:24;72:4	<b>respectfully (1)</b> 30:9	<b>rounds (1)</b> 21:20
<b>Rapids (4)</b> 17:21;36:15,16; 37:14	<b>recreation (1)</b> 20:1	<b>renewable (4)</b> 7:24;10:4;12:17; 14:2	<b>respond (1)</b> 62:11	<b>route (19)</b> 6:2,14,15;16:25; 17:3,4,5,10,16,21; 18:16;19:5;24:13; 25:14;26:9;27:25; 28:16;74:1,2
<b>rate (1)</b> 57:13	<b>red (1)</b> 39:13	<b>renewables (1)</b> 14:4	<b>responded (1)</b> 33:16	<b>routes (2)</b> 53:25;74:5
<b>ratepayers (1)</b> 51:10	<b>redone (1)</b> 72:25	<b>repeatedly (2)</b> 40:2,18	<b>response (4)</b> 41:14,19;49:25; 68:9	<b>routing (2)</b> 23:4;25:25
<b>rates (1)</b> 62:22	<b>reduce (2)</b> 22:21;23:12	<b>replacement (1)</b> 23:4	<b>responsible (4)</b> 10:23,25;66:4,6	<b>rows (1)</b> 27:10
<b>rather (4)</b> 8:6;34:1,50:12; 51:5	<b>referring (2)</b> 67:21;76:10	<b>replacing (1)</b> 43:16	<b>rest (1)</b> 59:19	<b>rules (1)</b> 4:22
<b>reach (2)</b> 29:8;70:3	<b>regarding (3)</b> 41:18;43:4;44:3	<b>report (9)</b> 6:19;25:17,18;27:6; 28:5,7,12;37:23; 75:17	<b>restore (2)</b> 52:9,18	<b>run (2)</b> 54:1;65:5
<b>read (2)</b> 5:22;19:21	<b>region (7)</b> 10:8,19,19;12:9,14; 63:1,6	<b>reportedly (1)</b> 62:5	<b>resulted (1)</b> 9:23	<b>running (1)</b> 18:20
<b>ready (1)</b> 77:9	<b>regional (12)</b> 9:1,13;14:9,12,16; 15:1,6,15;16:10; 62:13;63:22,23	<b>reporter (5)</b> 4:5;5:5;29:23; 30:15,20	<b>retirement (1)</b> 10:5	<b>runs (6)</b> 17:19,21;53:6,9,15; 54:3
<b>real (2)</b> 8:10;18:12	<b>region's (1)</b> 9:12	<b>reports (1)</b> 66:13	<b>revelations (1)</b> 41:16	<b>rural (1)</b> 31:24
<b>really (32)</b> 3:14;4:21;5:18; 9:21;11:11;14:21; 16:6,18;18:12,17; 21:15;27:21;32:1,2, 16;37:16;38:4;44:14; 46:21;50:23;51:10; 56:13,18;57:8;65:1; 68:14,17;70:25; 73:24;75:11;76:6; 77:18	<b>regulate (1)</b> 6:1	<b>represent (1)</b> 27:10	<b>revenue (1)</b> 45:12	
<b>reason (3)</b> 5:9;14:13;47:21	<b>regulators (2)</b> 52:10,19	<b>represents (1)</b> 27:14	<b>review (19)</b> 4:17,18;5:16;6:16; 7:4;21:11;22:10;27:8, 9,18;41:2;66:10,13; 75:13,14,23;76:1,11; 77:9	<b>S</b>
<b>reasons (1)</b> 35:12	<b>regulatory (1)</b> 13:16	<b>request (1)</b> 44:23	<b>Richtman (8)</b> 37:25;38:2,2;65:18, 18;66:24;67:8,18	<b>SAARAH (7)</b> 3:1;4:10;19:3; 21:14;25:13;30:13; 66:2
<b>Rebecca (3)</b> 32:21;33:1,2	<b>reiterate (3)</b> 13:8;15:5;69:1	<b>requested (1)</b> 45:7	<b>R-i-c-h-t-m-a-n (2)</b> 38:3;65:19	<b>Saarah's (1)</b> 29:7
<b>R-e-b-e-c-c-a (1)</b> 33:3	<b>related (6)</b> 9:5;12:25;15:6; 43:20;62:6;71:6	<b>requesting (1)</b> 14:14	<b>right (16)</b> 4:16;31:18,22; 32:11;33:2;36:3; 37:12,20;46:21; 52:15;53:6,17,20; 54:3;68:1;69:18	<b>sabotage (3)</b> 33:19;44:22,22
<b>receive (5)</b> 5:12;24:9;25:9; 71:20;72:1	<b>relevant (1)</b> 45:5	<b>requests (3)</b> 35:14;40:10;49:16	<b>right-of-way (5)</b> 17:14,15,25;18:5,7	<b>safe (1)</b> 3:13
<b>received (2)</b> 20:12;30:17	<b>reliability (13)</b> 10:13,20;11:21; 12:18;14:11;15:16; 16:4;38:11;44:9,9,18; 59:1;62:6	<b>require (3)</b> 6:13;18:5;25:16	<b>risk (1)</b> 44:25	<b>safely (1)</b> 77:19
<b>recently (2)</b>	<b>reliable (3)</b> 9:15;10:14;12:9	<b>requirement (1)</b> 44:21	<b>river (1)</b>	<b>safety (1)</b> 31:12
	<b>relief (1)</b> 64:25	<b>re-referenced (1)</b> 34:18		<b>sale (1)</b> 41:15
	<b>relies (1)</b>	<b>research (2)</b> 46:12;73:18		<b>same (12)</b> 3:23,24;24:6;43:11, 14,17;44:19,21;51:4;
		<b>resident (4)</b> 38:8;40:1;61:3; 67:8		
		<b>residential (1)</b>		

<p>53:7;57:6;64:24  <b>sample (2)</b>                  23:14;24:6  <b>sanctuary (1)</b>                  55:4  <b>Savings (1)</b>                  7:22  <b>saw (1)</b>                  9:8  <b>saying (2)</b>                  65:9,11  <b>scale (9)</b>                  35:2;40:2,22;41:9,                  11,18;59:9,16;68:24  <b>scattered (1)</b>                  57:3  <b>schedule (2)</b>                  27:8;28:18  <b>scheme (1)</b>                  44:14  <b>school (1)</b>                  60:20  <b>scientist (1)</b>                  51:23  <b>scope (3)</b>                  27:5;28:4;60:13  <b>Scoping (1)</b>                  3:4  <b>scrap (1)</b>                  37:17  <b>screen (3)</b>                  8:23;9:15;17:6  <b>second (7)</b>                  4:4;27:2;28:10;                  52:24;59:24;64:7,12  <b>seconds (3)</b>                  30:1;37:15,15  <b>secret (5)</b>                  34:2;35:10,11,11,                  15  <b>secrets (1)</b>                  34:3  <b>section (4)</b>                  4:3;11:18;12:12;                  21:9  <b>sections (1)</b>                  24:25  <b>seeing (2)</b>                  46:2;66:22  <b>seem (1)</b>                  74:25  <b>seems (3)</b>                  51:5;71:3;72:19  <b>segment (11)</b>                  17:18,23;18:1,3,4,                  8;43:7,8,12,13,17  <b>segments (1)</b>                  17:17  <b>segues (1)</b>                  15:3  <b>sell (1)</b>                  56:7  <b>selling (1)</b></p>	<p>45:10  <b>senate (2)</b>                  6:5;34:12  <b>Senator (1)</b>                  34:11  <b>send (1)</b>                  29:6  <b>sense (3)</b>                  18:19;19:22;48:12  <b>sensitive (1)</b>                  35:14  <b>separate (6)</b>                  16:15;41:22;42:8;                  49:13;63:24;71:17  <b>separated (2)</b>                  33:11;52:14  <b>Separately (1)</b>                  6:20  <b>seriously (1)</b>                  36:2  <b>serve (4)</b>                  14:4;38:18;62:16;                  63:23  <b>served (1)</b>                  58:13  <b>serves (1)</b>                  51:10  <b>service (4)</b>                  7:14;19:2;42:12;                  56:25  <b>services (1)</b>                  20:7  <b>serving (2)</b>                  13:25;14:1  <b>set (2)</b>                  9:20;19:6  <b>setbacks (1)</b>                  53:10  <b>setting (3)</b>                  4:1;30:14;37:2  <b>Seven (1)</b>                  37:13  <b>several (3)</b>                  40:24;51:1;52:2  <b>share (1)</b>                  44:2  <b>shared (2)</b>                  53:14;68:21  <b>sharing (1)</b>                  47:7  <b>sheet (2)</b>                  28:25;42:13  <b>shit (1)</b>                  68:14  <b>short (1)</b>                  52:7  <b>short-sighted (1)</b>                  59:5  <b>shown (1)</b>                  51:9  <b>shows (1)</b>                  9:9  <b>side (2)</b></p>	<p>8:7;49:5  <b>sides (1)</b>                  70:2  <b>sign (1)</b>                  49:1  <b>signed (2)</b>                  29:19;48:23  <b>silo (1)</b>                  58:22  <b>similar (2)</b>                  21:8;71:15  <b>similarly (1)</b>                  49:21  <b>single (5)</b>                  40:20;43:12;69:18,                  19;76:11  <b>sit (1)</b>                  66:15  <b>site (2)</b>                  6:2;51:4  <b>situation (2)</b>                  46:11;53:8  <b>six (1)</b>                  3:22  <b>size (2)</b>                  25:21,22  <b>sketch (1)</b>                  36:4  <b>slide (19)</b>                  6:10;7:10;8:11;9:6;                  11:6,7;13:1;15:9;                  21:5,24;24:4,12;26:3;                  27:7;29:14;58:25;                  64:7,8;77:1  <b>slides (3)</b>                  21:13;29:4,4  <b>slow (3)</b>                  64:20;65:7,10  <b>slower (1)</b>                  35:25  <b>small (1)</b>                  38:17  <b>smaller (2)</b>                  4:1;30:15  <b>smell (1)</b>                  3:13  <b>smoldering (1)</b>                  50:16  <b>sobbing (1)</b>                  55:3  <b>social (2)</b>                  51:23;52:18  <b>solar (3)</b>                  10:6;37:4,4  <b>solely (1)</b>                  8:8  <b>solvable (1)</b>                  50:2  <b>solve (1)</b>                  50:1  <b>Solway (3)</b>                  39:17;49:3,5  <b>someone (4)</b></p>	<p>30:9;38:9;65:21;                  68:16  <b>son (2)</b>                  31:5;32:10  <b>soon (1)</b>                  77:8  <b>sooner (1)</b>                  26:2  <b>Sorry (3)</b>                  31:15;70:16;72:6  <b>sort (3)</b>                  10:1;13:4;64:25  <b>sought (1)</b>                  33:6  <b>sound (3)</b>                  49:13,18,20  <b>source (1)</b>                  32:6  <b>south (1)</b>                  14:18  <b>speak (21)</b>                  29:20;30:3,5,11,24;                  32:23,24;35:19;                  44:21;45:20,21;50:8;                  56:19;57:22;60:3;                  62:1;69:5;70:9,13;                  76:9;77:17  <b>speaker (5)</b>                  5:3;29:17;32:21;                  35:18;37:25  <b>speakers (2)</b>                  30:8;60:5  <b>speaking (7)</b>                  4:2;30:9;45:22;                  47:7;54:4;58:18;                  76:19  <b>speaks (1)</b>                  44:10  <b>special (4)</b>                  23:7,20;50:5;75:20  <b>specialist (1)</b>                  7:8  <b>species (1)</b>                  32:6  <b>specific (6)</b>                  23:21;33:24;40:16,                  16,19;73:2  <b>specifically (5)</b>                  20:8;41:4;63:15;                  71:11;74:19  <b>spell (19)</b>                  29:22;32:22;38:1;                  39:14;42:22;47:9;                  48:13;50:9;51:20;                  54:17;56:16;58:15;                  59:25;61:22;64:13;                  65:17;69:9;70:22;                  73:10  <b>spelled (1)</b>                  33:3  <b>spending (1)</b>                  37:1  <b>spicy (1)</b></p>	<p>68:20  <b>spoke (5)</b>                  31:15;46:15;53:8;                  66:25;75:5  <b>spoken (7)</b>                  50:8;51:19;52:23,                  23;54:16;56:15;76:11  <b>spray (4)</b>                  68:5,6;69:14;72:5  <b>spraying (2)</b>                  69:17,20  <b>spread (2)</b>                  12:5;63:6  <b>St (11)</b>                  3:5;8:11,17;11:3;                  17:7,22;18:2,8;43:9;                  44:11,15  <b>stable (1)</b>                  33:18  <b>Stadium (1)</b>                  40:23  <b>staff (11)</b>                  5:15;6:18;22:13;                  25:12,16;48:23;66:2,                  6;67:14;69:1;76:13  <b>stagnant (2)</b>                  44:12,16  <b>stakeholder (3)</b>                  18:13;21:16,25  <b>stand (4)</b>                  8:23;46:15,22;                  56:10  <b>standard (2)</b>                  23:6,15  <b>standpoint (3)</b>                  19:20;20:20,25  <b>star (1)</b>                  27:14  <b>start (12)</b>                  4:9;19:1;22:12;                  23:14;24:6;29:18,24;                  30:22;69:21;71:21;                  72:10,16  <b>started (6)</b>                  3:11;9:22;15:17;                  27:18;55:18;63:3  <b>starting (6)</b>                  7:12;9:21,21;19:25;                  23:24;67:7  <b>State (32)</b>                  5:15;7:16,23;9:14;                  18:14;20:21;21:2,11,                  23;29:22;32:22;                  34:11;38:1;39:14;                  42:21;46:11;47:9;                  48:13;50:9;51:20;                  54:17;56:16;58:11,                  15;59:25;61:22;                  62:17;64:13;65:17;                  69:8;70:22;73:10  <b>stated (4)</b>                  25:20;26:17;38:22;                  50:20</p>
---	---	--	--	---

<p><b>statement (2)</b> 33:23;48:20</p> <p><b>statements (1)</b> 54:24</p> <p><b>States (4)</b> 45:1,3,4,11</p> <p><b>State's (4)</b> 22:16;27:9;34:21; 48:6</p> <p><b>station (1)</b> 12:3</p> <p><b>statistics (1)</b> 45:21</p> <p><b>stay (1)</b> 31:4</p> <p><b>step (1)</b> 27:20</p> <p><b>stick (1)</b> 56:14</p> <p><b>still (5)</b> 16:8;25:20;37:10; 53:17;75:7</p> <p><b>stone (1)</b> 50:14</p> <p><b>stood (1)</b> 64:17</p> <p><b>stop (4)</b> 65:9;69:20,20,21</p> <p><b>stopping (2)</b> 69:16,17</p> <p><b>story (1)</b> 67:25</p> <p><b>straight (2)</b> 36:20;60:9</p> <p><b>strategies (1)</b> 19:11</p> <p><b>streams (1)</b> 40:25</p> <p><b>structure (2)</b> 25:24;57:13</p> <p><b>structures (7)</b> 8:16;20:3;43:11,14, 17,18;48:2</p> <p><b>stuck (2)</b> 3:15;12:13</p> <p><b>students (1)</b> 52:1</p> <p><b>studied (1)</b> 26:19</p> <p><b>studies (2)</b> 15:16;51:25</p> <p><b>study (3)</b> 9:23;49:14;63:2</p> <p><b>studying (2)</b> 52:1,6</p> <p><b>stuff (5)</b> 37:10;55:8;62:18; 67:2;72:10</p> <p><b>sub (1)</b> 32:6</p> <p><b>submissions (1)</b> 77:5</p> <p><b>submit (4)</b></p>	<p>28:25;66:9,12;67:6</p> <p><b>submitted (1)</b> 53:3</p> <p><b>substation (25)</b> 8:17,18,19;13:12, 14;17:7,8,9,20;18:2,9, 9;36:9,15;43:9,10; 44:20;49:4,6,8,17; 60:10,15,25;61:15</p> <p><b>sudden (4)</b> 34:24;47:20,22; 48:2</p> <p><b>sue (1)</b> 68:12</p> <p><b>summary (1)</b> 26:4</p> <p><b>support (3)</b> 14:11;41:1;59:1</p> <p><b>supposed (5)</b> 40:8;51:3,9;55:15; 69:21</p> <p><b>sure (8)</b> 4:25;9:13;30:8; 43:8;52:20;57:15; 70:19;71:10</p> <p><b>surrounding (1)</b> 52:5</p> <p><b>surveys (1)</b> 18:21</p> <p><b>sustainable (1)</b> 55:11</p> <p><b>sweatshirt (1)</b> 47:8</p> <p><b>system (7)</b> 13:5;16:11;24:22; 25:19;63:19;64:1; 77:3</p> <p><b>systems (1)</b> 14:5</p>	<p>20:3</p> <p><b>tariff (1)</b> 10:22</p> <p><b>teach (3)</b> 32:10;51:24,25</p> <p><b>team (1)</b> 22:4</p> <p><b>teams (1)</b> 18:13</p> <p><b>tech (1)</b> 38:18</p> <p><b>technical (1)</b> 52:13</p> <p><b>technicality (1)</b> 52:14</p> <p><b>technician (1)</b> 31:4</p> <p><b>technology (1)</b> 45:22</p> <p><b>ten (4)</b> 44:17;46:5;53:9; 70:18</p> <p><b>tentative (2)</b> 27:7;28:18</p> <p><b>term (4)</b> 9:16;10:20;11:15; 31:13</p> <p><b>terms (3)</b> 14:3;39:6;52:14</p> <p><b>territory (1)</b> 7:15</p> <p><b>test (1)</b> 52:19</p> <p><b>thanking (1)</b> 22:12</p> <p><b>Thanks (4)</b> 8:25;53:5;54:11,15</p> <p><b>thinking (3)</b> 36:20;55:4;73:3</p> <p><b>third (5)</b> 27:4;43:7;47:17,25; 66:12</p> <p><b>though (1)</b> 71:24</p> <p><b>thought (2)</b> 38:5;73:16</p> <p><b>three (9)</b> 3:19;11:19;17:17; 26:23;30:1;36:7;48:2; 49:13;60:16</p> <p><b>throughout (11)</b> 14:9;23:8;32:12; 57:3;62:9,10;64:10; 65:22;66:4,17,20</p> <p><b>throw (1)</b> 36:1</p> <p><b>Thursday (2)</b> 3:22;28:24</p> <p><b>thus (1)</b> 58:10</p> <p><b>tied (1)</b> 58:6</p> <p><b>till (1)</b></p>	<p>4:3</p> <p><b>timeline (2)</b> 18:12;30:1</p> <p><b>timers (1)</b> 64:13</p> <p><b>times (5)</b> 14:3,6,7;21:18; 61:13</p> <p><b>timing (3)</b> 25:22;26:1;41:11</p> <p><b>tiny (1)</b> 46:16</p> <p><b>TL-25-112 (1)</b> 3:9</p> <p><b>today (9)</b> 3:3,18,19;5:9;6:7; 7:9;14:23;15:25; 48:21</p> <p><b>together (1)</b> 11:5</p> <p><b>told (10)</b> 40:2,7,8,11;41:4, 24;50:16;55:13,24; 73:19</p> <p><b>Tom (9)</b> 35:21,22;36:10,13, 16,18;37:22;64:15,16</p> <p><b>T-o-m (2)</b> 35:24;64:16</p> <p><b>ton (1)</b> 55:7</p> <p><b>tonight (18)</b> 4:25;9:11;11:2; 12:23;15:13;16:8,21; 22:13,16;24:18; 30:17;33:9;40:3;44:7; 56:19;58:20;71:14; 74:2</p> <p><b>tonight's (1)</b> 28:23</p> <p><b>tool (1)</b> 73:20</p> <p><b>topics (3)</b> 3:23;25:9;26:4</p> <p><b>touch (2)</b> 56:13;69:3</p> <p><b>tough (1)</b> 68:14</p> <p><b>toward (1)</b> 4:4</p> <p><b>towers (1)</b> 37:2</p> <p><b>town (2)</b> 53:13;55:3</p> <p><b>track (1)</b> 66:17</p> <p><b>tracking (1)</b> 66:4</p> <p><b>tracks (2)</b> 23:8;65:22</p> <p><b>trade (6)</b> 34:2,3;35:10,10,11, 15</p>	<p><b>Tranche (5)</b> 9:9,10,24;10:9;15:4</p> <p><b>transcribe (2)</b> 5:7;30:16</p> <p><b>transcribed (1)</b> 30:20</p> <p><b>transcripts (2)</b> 76:12;77:7</p> <p><b>transferred (1)</b> 11:23</p> <p><b>transfers (4)</b> 13:18;14:12,17; 15:6</p> <p><b>transformers (1)</b> 43:22</p> <p><b>transmission (49)</b> 3:6,20;6:12;7:19; 8:4,8,12,15;9:2,13,22; 12:7;13:5,5;14:13; 16:11;17:25;23:16; 24:7;25:25;26:18; 31:9;32:11;34:7;37:1; 42:7;43:11,13,15,16, 25;44:6;56:21,22; 57:3,7,10,18,25;58:4, 9,21;62:4,8;63:18,25; 72:14,22,23</p> <p><b>transmitting (1)</b> 9:17</p> <p><b>transportation (1)</b> 20:7</p> <p><b>traveled (1)</b> 34:10</p> <p><b>Treasure (3)</b> 30:23,25;53:8</p> <p><b>T-r-e-a-s-u-r-e (1)</b> 31:1</p> <p><b>tree (4)</b> 22:24;23:4;67:1,6</p> <p><b>trees (11)</b> 53:19,22;54:6; 55:13,13,19;67:22; 70:1,3,3;72:4</p> <p><b>tremendous (1)</b> 73:17</p> <p><b>Tribal (2)</b> 20:22;21:21</p> <p><b>tried (1)</b> 12:16</p> <p><b>trout (1)</b> 40:24</p> <p><b>trust (6)</b> 40:9;52:10,18;61:9, 16;71:2</p> <p><b>try (2)</b> 50:1;56:8</p> <p><b>trying (2)</b> 56:5;59:4</p> <p><b>tunnels (1)</b> 37:11</p> <p><b>turkeys (1)</b> 32:5</p> <p><b>turn (1)</b></p>
	<b>T</b>			
	<p><b>table (2)</b> 39:3;65:21</p> <p><b>tablets (1)</b> 50:15</p> <p><b>talk (10)</b> 11:3;12:22;14:8; 16:21;17:2;24:3;40:3; 44:8;61:20;73:1</p> <p><b>talked (5)</b> 13:20;15:14;28:2; 69:14;74:14</p> <p><b>talking (12)</b> 5:7;16:8;41:25; 52:20;58:4,5,20; 63:15;65:3;71:11; 72:11;73:7</p> <p><b>talks (3)</b> 41:17;44:11;57:17</p> <p><b>tall (1)</b> 53:21</p> <p><b>taller (1)</b></p>			

<p>30:11 <b>turned (1)</b> 51:2 <b>twice (1)</b> 53:21 <b>two (12)</b> 3:18;6:13;11:10; 12:24;36:19;43:1; 47:16,25;48:3;54:3; 60:9,11 <b>two-fold (1)</b> 39:25 <b>type (2)</b> 25:21,23 <b>types (1)</b> 25:24</p>	<p>20:14;21:18,19 <b>upfront (1)</b> 16:20 <b>upper (2)</b> 11:21;12:10 <b>use (14)</b> 9:14,19;10:6;11:20; 12:2;23:19;32:3,12; 40:14;62:24;63:7; 68:7;73:21;75:1 <b>used (4)</b> 9:17;11:24;12:3; 14:4 <b>users (1)</b> 12:6 <b>using (1)</b> 34:1 <b>usual (1)</b> 71:9 <b>Usually (1)</b> 35:10 <b>Utilities (11)</b> 3:8;4:12;5:10,25; 6:2,18;8:6;14:9; 22:11;24:21;34:15 <b>utility (6)</b> 7:23;8:6,7;40:15; 57:12,24 <b>utilize (2)</b> 32:3,12</p>	<p><b>virtual (2)</b> 3:21;28:24 <b>vision (1)</b> 33:6 <b>visual (1)</b> 24:5 <b>voltage (6)</b> 17:11,13,15;34:6; 43:15;71:8 <b>voltages (1)</b> 25:23 <b>volume (2)</b> 49:9,18</p>	<p>28:20;29:17 <b>well-informed (2)</b> 76:14,15 <b>well-versed (1)</b> 75:6 <b>weren't (1)</b> 34:17 <b>west (5)</b> 13:20;39:6;49:7; 50:25;58:2 <b>whack (1)</b> 70:5 <b>what's (6)</b> 9:5;12:14;33:6; 38:15;66:21;73:6 <b>whole (11)</b> 17:10;19:20;37:3, 17,18,19;64:20;65:2, 12;67:25;70:2 <b>whose (1)</b> 46:15 <b>wide (2)</b> 19:17,19 <b>wife (1)</b> 53:3 <b>wild (1)</b> 39:6 <b>wildfire (3)</b> 33:19;44:21,25 <b>wildlife (2)</b> 21:8;22:25 <b>wind (4)</b> 10:6;37:4,10,11 <b>Winter (10)</b> 8:21,22;9:1;28:17; 36:8,12,14,17;43:8,23 <b>wires (1)</b> 46:5 <b>Wisconsin (6)</b> 8:5;13:13,20;14:17, 17;45:11 <b>wish (3)</b> 46:18;56:19;57:22 <b>within (4)</b> 20:4,16;39:19,21 <b>without (3)</b> 16:13;56:23;73:5 <b>wondering (2)</b> 73:18;75:9 <b>woodland (1)</b> 49:20 <b>word (7)</b> 9:10,11;13:10; 34:24;50:14;75:1; 76:11 <b>words (1)</b> 34:24 <b>work (7)</b> 11:5;39:3;54:7,22; 56:9;73:14;76:1 <b>worked (1)</b> 16:3 <b>workers (2)</b></p>	<p>37:6;69:15 <b>Working (5)</b> 21:11;37:8;57:11, 12;67:12 <b>world (4)</b> 8:8;31:7;46:16,22 <b>worries (1)</b> 31:12 <b>worry (2)</b> 37:9,11 <b>wrap (1)</b> 30:2 <b>write (1)</b> 76:13 <b>writing (4)</b> 34:18;47:14,24; 48:11 <b>written (3)</b> 38:7;74:20;77:6</p>
<b>U</b>		<b>W</b>		<b>Y</b>
<p><b>ultimately (4)</b> 6:6;9:18;11:4; 24:10 <b>umbrella (1)</b> 67:1 <b>uncomfortable (1)</b> 31:21 <b>Under (8)</b> 6:17;10:13,22;11:4; 42:13;67:1,4;71:12 <b>undergo (1)</b> 21:11 <b>underway (1)</b> 68:22 <b>union (3)</b> 36:22;37:5;57:17 <b>unique (3)</b> 23:11;25:4;26:8 <b>United (3)</b> 45:1,3,4 <b>units (2)</b> 21:22;51:2 <b>University (1)</b> 51:24 <b>unless (3)</b> 34:16;68:10;71:20 <b>unprecedented (3)</b> 34:20;39:4,5 <b>unstoppable (1)</b> 65:10 <b>up (47)</b> 4:19;6:25;7:14; 8:23;10:10,24;17:6,8; 18:2;29:15,19,19,21; 30:2,4,4,21;32:22,23; 35:23;36:5,6;39:14; 42:20,22;44:23; 45:15;46:22;47:22; 50:7;52:24;53:4; 54:17;56:11;64:6,8, 12;65:16,24;68:19; 69:8,22;70:21;75:4; 76:23;77:1,17 <b>updated (3)</b></p>	<b>V</b>	<p><b>wait (2)</b> 4:3;30:10 <b>waiting (1)</b> 49:24 <b>walk (2)</b> 19:24;69:3 <b>walked (1)</b> 29:2 <b>wants (4)</b> 5:1;29:20;63:25; 70:13 <b>WARGIN (2)</b> 47:10,10 <b>W-a-r-g-i-n (1)</b> 47:11 <b>watch (1)</b> 41:3 <b>watched (1)</b> 55:14 <b>watching (3)</b> 45:24;52:6;73:15 <b>water (2)</b> 20:17,24 <b>waving (1)</b> 4:6 <b>way (21)</b> 11:14;12:2;14:22; 16:12;31:6,7;32:2,2, 14,14;35:22;40:22; 50:21;51:11,14; 54:11;61:3;62:13; 64:19,24;65:5 <b>Wayne (1)</b> 41:5 <b>ways (10)</b> 9:16,19;10:7;12:16; 22:17,21;23:11; 24:16;26:16;54:1 <b>weather (3)</b> 33:20;44:22,22 <b>web (3)</b> 24:21;75:23,25 <b>website (3)</b> 6:24;21:17;22:4 <b>week (1)</b> 27:20 <b>welcome (2)</b></p>	<p><b>yard (1)</b> 39:20 <b>year (11)</b> 9:7;18:18;32:7,12; 40:24;64:21;66:6; 69:25,25,25;73:15 <b>years (16)</b> 7:22;12:2;13:23; 15:18;18:19;37:7,7; 39:24;44:17;46:7; 49:11,24;52:2;60:16; 64:22;69:23 <b>yesterday (1)</b> 3:19 <b>young (1)</b> 35:22 <b>YouTube (1)</b> 41:3</p>	
				<b>1</b>
				<p><b>1 (7)</b> 9:24;17:23;18:3; 43:12,17;51:2,6 <b>1,000 (1)</b> 31:9 <b>1,300 (1)</b> 49:4 <b>1,600 (1)</b> 7:17 <b>13 (1)</b> 39:23 <b>14 (1)</b> 8:2 <b>15 (2)</b> 31:20;49:24 <b>150 (2)</b> 18:7;57:25 <b>150,000 (1)</b> 7:25 <b>16 (2)</b></p>

7:22;34:10	60:6		
<b>2</b>	<b>30th (1)</b> 42:10	<b>9</b>	
<b>2 (8)</b> 10:9;18:1,4;31:24; 43:12,13;65:6;74:3	<b>345 (8)</b> 3:6;6:12;8:15; 18:10;36:19;43:5,10, 13	<b>92 (1)</b> 17:10	
<b>2.1 (1)</b> 9:9	<b>3505 (1)</b> 39:17	<b>95 (1)</b> 13:24	
<b>2.3 (1)</b> 44:12	<b>3525 (1)</b> 49:3	<b>955 (1)</b> 59:12	
<b>2.4 (1)</b> 12:12	<b>4</b>	<b>9th (1)</b> 3:22	
<b>2.5 (2)</b> 12:13;38:9	<b>4:30 (1)</b> 29:13		
<b>20 (8)</b> 18:6;31:19,19;32:8; 53:18,19;55:18;70:11	<b>40 (1)</b> 49:11		
<b>200 (2)</b> 31:10;60:6	<b>400 (1)</b> 58:10		
<b>2000s (2)</b> 13:15,23	<b>49 (1)</b> 69:23		
<b>2013 (1)</b> 15:22	<b>5</b>		
<b>2020 (4)</b> 9:21,22;15:16;63:3	<b>5 (1)</b> 58:9		
<b>2022 (2)</b> 9:24;57:24	<b>50 (4)</b> 7:23;14:1;32:6; 37:7		
<b>2024 (4)</b> 10:11;41:10;57:24; 58:10	<b>6</b>		
<b>2025 (4)</b> 18:12;21:15,17; 41:3	<b>67 (2)</b> 8:14;34:6		
<b>2026 (3)</b> 28:7,17;77:7	<b>7</b>		
<b>2029 (1)</b> 19:1	<b>7 (1)</b> 59:8		
<b>2032 (2)</b> 19:2;44:13	<b>7:45 (1)</b> 70:14		
<b>20th (1)</b> 27:17	<b>700 (1)</b> 31:8		
<b>230 (2)</b> 17:24;18:5	<b>72 (1)</b> 64:22		
<b>23rd (3)</b> 27:23;29:12;77:7	<b>745 (2)</b> 63:13;71:7		
<b>25 (1)</b> 13:23	<b>8</b>		
<b>25-127 (1)</b> 51:1	<b>8 (2)</b> 9:14;31:3		
<b>26-159 (1)</b> 42:13	<b>8,700 (1)</b> 7:19		
<b>3</b>	<b>8:00 (1)</b> 77:20		
<b>3 (2)</b> 18:8;43:9	<b>80 (1)</b> 46:7		
<b>3.3 (1)</b> 11:18	<b>800 (10)</b> 13:6,9,10;14:14,22, 25;15:4,7;45:7;58:24		
<b>30 (4)</b> 29:25;37:15,15; 66:6			
<b>300 (1)</b>			

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

E015/CN-25-111; E015/TL-25-112

PUBLIC INFORMATION AND SCOPING MEETING  
APRIL 7, 2026 - 6:00 P.M.  
BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of the Application of Minnesota Power  
and American Transmission Company, LLC, for a  
Certificate of Need and Route Permit for the  
Iron Range - St. Louis County - Arrowhead 345 kV  
Transmission Project

DOCKET NOS. E015/CN-25-111  
E015/TL-25-112

IN-PERSON MEETING  
PUBLIC COMMENT  
APRIL 7, 2026  
6:00 P.M.

BEFORE:

STENOGRAPHIC COURT REPORTER: Jacquelyn Young, RPR

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

**SPEAKER :**

**PAGE :**

**DEBRA THORSTENSEN**

**3**

WHEREUPON, the following proceedings were  
duly had and entered of record, to wit:

1 MS. DEBRA THORSTENSEN: My name is  
2 Debra Thornstensen; D-e-b-r-a,  
3 T-h-o-r-s-t-e-n-s-e-n.

4 I just wanted to say that I have  
5 concerns about the noise pollution of this  
6 high-voltage line. We can currently hear at our  
7 house -- We're about a mile from the proposed data  
8 center site and the existing substation. We can  
9 hear a low sound buzzing in the summertime. I can  
10 only imagine it will get worse with a -- with a  
11 larger voltage line.

12 I guess I don't know the terminology,  
13 but for them to want to reduce the limits of it, the  
14 800 -- I can't even remember what the name of it  
15 was, but they wanted to reduce the limits of the  
16 voltage that could travel. It's only going to get  
17 louder.

18 I think it's going to be a concern  
19 for people's mental health, people's well-being, our  
20 quiet way of life, and I think it's impossible to  
21 separate this whole transmission line from the data  
22 center issue.

23 We were told here tonight that they  
24 are separate issues, but we're not buying it. As a  
25 resident of Hermantown, we've been lied to for the

1 last year and a half about the data center, and we  
2 know that Minnesota Power has involvement with  
3 BlackRock and the company that has interest in data  
4 centers, Google in particular, and it's impossible  
5 to separate the two.

6 So I think we have to look at the big  
7 picture. We need to slow down some of this  
8 corporate greed and think about the people that live  
9 here and our quality of life. Thank you.

10

11 (Public comments ended at 7:52 p.m.)

12 \* \* \*

13

14

15

16

17

18

19

20

21

22

23

24

25

			<b>3:14</b> resident (1) 3:25	
<b>B</b>	<b>G</b>	<b>M</b>	<b>S</b>	<b>Y</b>
<b>big (1)</b> 4:6	<b>Google (1)</b> 4:4	<b>mental (1)</b> 3:19		<b>year (1)</b> 4:1
<b>BlackRock (1)</b> 4:3	<b>greed (1)</b> 4:8	<b>mile (1)</b> 3:7	<b>separate (3)</b> 3:21,24;4:5	<b>3</b>
<b>buying (1)</b> 3:24	<b>guess (1)</b> 3:12	<b>Minnesota (1)</b> 4:2	<b>site (1)</b> 3:8	<b>3 (1)</b> 2:2
<b>buzzing (1)</b> 3:9	<b>H</b>	<b>N</b>	<b>slow (1)</b> 4:7	<b>7</b>
<b>C</b>	<b>half (1)</b> 4:1	<b>name (2)</b> 3:1,14	<b>sound (1)</b> 3:9	<b>7:52 (1)</b> 4:11
<b>can (3)</b> 3:6,8,9	<b>health (1)</b> 3:19	<b>need (1)</b> 4:7	<b>SPEAKER (1)</b> 2:1	<b>8</b>
<b>center (3)</b> 3:8,22;4:1	<b>hear (2)</b> 3:6,9	<b>noise (1)</b> 3:5	<b>substation (1)</b> 3:8	
<b>centers (1)</b> 4:4	<b>Hermantown (1)</b> 3:25	<b>O</b>	<b>summertime (1)</b> 3:9	<b>800 (1)</b> 3:14
<b>comments (1)</b> 4:11	<b>high-voltage (1)</b> 3:6	<b>only (2)</b> 3:10,16	<b>T</b>	
<b>company (1)</b> 4:3	<b>house (1)</b> 3:7	<b>P</b>	<b>terminology (1)</b> 3:12	
<b>concern (1)</b> 3:18	<b>I</b>	<b>PAGE (1)</b> 2:1	<b>Thornstensen (1)</b> 3:2	
<b>concerns (1)</b> 3:5	<b>imagine (1)</b> 3:10	<b>particular (1)</b> 4:4	<b>THORSTENSEN (2)</b> 2:2;3:1	
<b>corporate (1)</b> 4:8	<b>impossible (2)</b> 3:20;4:4	<b>people (1)</b> 4:8	<b>T-h-o-r-s-t-e-n-s-e-n (1)</b> 3:3	
<b>currently (1)</b> 3:6	<b>interest (1)</b> 4:3	<b>people's (2)</b> 3:19,19	<b>told (1)</b> 3:23	
<b>D</b>	<b>involvement (1)</b> 4:2	<b>picture (1)</b> 4:7	<b>tonight (1)</b> 3:23	
<b>data (4)</b> 3:7,21;4:1,3	<b>issue (1)</b> 3:22	<b>pm (1)</b> 4:11	<b>transmission (1)</b> 3:21	
<b>DEBRA (3)</b> 2:2;3:1,2	<b>issues (1)</b> 3:24	<b>pollution (1)</b> 3:5	<b>travel (1)</b> 3:16	
<b>D-e-b-r-a (1)</b> 3:2	<b>L</b>	<b>Power (1)</b> 4:2	<b>two (1)</b> 4:5	
<b>down (1)</b> 4:7	<b>larger (1)</b> 3:11	<b>proceedings (1)</b> 2:24	<b>V</b>	
<b>duly (1)</b> 2:25	<b>last (1)</b> 4:1	<b>proposed (1)</b> 3:7	<b>voltage (2)</b> 3:11,16	
<b>E</b>	<b>lied (1)</b> 3:25	<b>Public (1)</b> 4:11	<b>W</b>	
<b>ended (1)</b> 4:11	<b>life (2)</b> 3:20;4:9	<b>Q</b>	<b>way (1)</b> 3:20	
<b>entered (1)</b> 2:25	<b>limits (2)</b> 3:13,15	<b>quality (1)</b> 4:9	<b>well-being (1)</b> 3:19	
<b>even (1)</b> 3:14	<b>line (3)</b> 3:6,11,21	<b>quiet (1)</b> 3:20	<b>WHEREUPON (1)</b> 2:24	
<b>existing (1)</b> 3:8	<b>live (1)</b> 4:8	<b>R</b>	<b>whole (1)</b> 3:21	
<b>F</b>	<b>look (1)</b> 4:6	<b>record (1)</b> 2:25	<b>wit (1)</b> 2:25	
<b>following (1)</b> 2:24	<b>louder (1)</b> 3:17	<b>reduce (2)</b> 3:13,15	<b>worse (1)</b> 3:10	
	<b>low (1)</b> 3:9	<b>remember (1)</b>		

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

SCOPING & INFORMATIONAL MEETING - 25-111 & 25-112  
VIRTUAL - APRIL 9, 2026 - 6:00 P.M.  
BEFORE THE COURT OF ADMINISTRATIVE HEARINGS  
FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of the Application of Minnesota Power and  
American Transmission Company, LLC, for a Certificate of  
Need and Route Permit for the Iron Range - St. Louis  
County - Arrowhead 345 kV Transmission Project

MPUC DOCKET NOS: E015/CN-25-111  
E015/TL-25-112

Hearing held remotely via:  
Webex & Telephone

April 9, 2026

COURT REPORTER: Christine Simons, RMR, RPR

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

I N D E X

SPEAKER	PAGE
Saarah Maxon	3
Drew Janke	6
Christian Winter	7
Emily Johnson	21
Maggie Schuppert	29
Kelly Holte	34
Steven Parker	37
Linda Hanson	46
Jim Klukkert	49
Maggie Schuppert	55
Kelly Holte	60

1 MS. SAARAH MAXON: Thank you, everybody,  
2 for joining us here tonight. This is the public  
3 information and scoping meeting for the proposed  
4 Iron Range - St. Louis County - Arrowhead 345-kV  
5 transmission line project. There are two docket  
6 numbers associated with this project. The first is  
7 CN-25-111 and the second is TL-25-112. Tonight is  
8 the virtual public information meeting for the  
9 proposed project, and we also held three in-person  
10 meetings on Monday and Tuesday.

11 I'd like to start with just a quick  
12 meeting agenda, just to orient everybody. My name  
13 is Saarah Maxon, and I'm an analyst at the Minnesota  
14 Public Utilities Commission. I'll give a brief  
15 introduction, and then I'll pass things off to the  
16 Applicants to provide a description of the proposed  
17 project.

18 Then, the Applicants will pass things  
19 back off to my colleague at the Minnesota Public  
20 Utilities Commission, Emily Johnson, who is the  
21 environmental review manager for the project.  
22 Finally, we'll end up with a comments and questions  
23 portion of the presentation.

24 I'd like to start off with just some  
25 ground rules for the meeting. We'd just ask that

1 everybody please be respectful of one another. It's  
2 a little bit different because we're on an online  
3 format, so we don't have to worry about going one  
4 person at a time. We'll talk about this later, but  
5 you will be able to raise your hand or flag us down  
6 if you want to ask a question, but there is a court  
7 reporter here recording everybody's comments tonight  
8 and the meeting.

9 So leading into why we're here today, we  
10 are not for or against the proposed project. We are  
11 here to receive public input and to compile a record  
12 for the Commission's permit decision. What you can  
13 do tonight is you can learn about the project, you  
14 can ask questions to State staff about the  
15 permitting review process, or you can ask the  
16 Applicant about the proposed project.

17 Your comments will help the Commission  
18 with making an informed decision on the permit and  
19 possibly inform some permit conditions. The  
20 Commissioners do want to hear from you, and they do  
21 read through your comments. They want to know how  
22 the local community feels.

23 I'd also like to provide just a brief  
24 overview of what we do at the Minnesota Public  
25 Utilities Commission. We regulate electric, natural

1 gas, and landline utilities. We also issue site and  
2 route permits for large electrical facilities.  
3 There are five Commissioners, who are appointed by  
4 the Governor and confirmed by the Senate, and they  
5 are ultimately the individuals who decide the permit  
6 issue.

7 Moving on to our next slide, the proposed  
8 project is for a 345-kilovolt transmission line, and  
9 it will require two approvals from the Commission:  
10 A certificate of need and a route permit. Both the  
11 certificate of need and the route permit will  
12 involve environmental review. Under the certificate  
13 of need proceeding, our staff at the Public  
14 Utilities Commission will prepare an environmental  
15 report.

16 Separately, the Applicants have already  
17 prepared an environmental assessment, which was  
18 included in their application for the proposed  
19 project. You can find a copy of this on the  
20 Commission's website.

21 This concludes my portion of the  
22 presentation. As I mentioned previously, my  
23 colleague, Emily, will be back to discuss the review  
24 process in more depth. But, for now, I'll hand  
25 things off to the Applicant to continue on.

1 MR. DREW JANKE: Thank you, Saarah.

2 Good evening. My name is Drew Janke. I  
3 am an environmental compliance specialist with  
4 Minnesota Power. We'll start off with a few, you  
5 know, company and project overview slides here  
6 before I hand it off to Christian Winter.

7 So next slide, please.

8 So starting with a high-level overview of  
9 Minnesota Power as a company. As you can see on the  
10 figure there, the Minnesota Power service territory  
11 covers a good portion of the northeastern part of  
12 the state.

13 Currently, we have just over  
14 1,600 megawatts of power generation capability, just  
15 over 8,700 miles of transmission and distribution  
16 lines. We have met, as a company, the Minnesota  
17 energy savings goal for the past 16 years, and we  
18 were the first utility within the state to deliver  
19 50 percent renewable energy to our customers. In  
20 total, we have about 150,000 total customers,  
21 including some of the nation's largest industrial  
22 operations, as well as 14 municipalities.

23 For the project, we do have a  
24 Co-applicant, American Transmission Company, or ATC.  
25 ATC is headquartered in Wisconsin, and essentially

1 ATC operates as a utility for utilities. So ATC  
2 operates primarily in the transmission realm of  
3 things rather than the generation and distribution  
4 end that Minnesota Power also works in.

5 On here is just a very high-level  
6 overview of the project we're here to talk about.  
7 So as Saarah mentioned, we're here to talk about the  
8 Iron Range to St. Louis County to Arrowhead  
9 transmission line project, or ISA project. It is an  
10 approximately 67-mile long, 345-kilovolt overhead  
11 transmission line project built on double-circuit  
12 capable structures, spanning from the Iron Range  
13 substation to the St. Louis County and Arrowhead  
14 substations.

15 And for the next few slides, I'll let  
16 Christian take over here.

17 MR. CHRISTIAN WINTER: All right.  
18 Thanks, Drew.

19 My name is Christian Winter. I am the  
20 manager of regional transmission planning for  
21 Minnesota Power, and I'll give some background on  
22 the need for the project, as well as a couple of  
23 related items to highlight, one from the application  
24 and one on responding to some comments on the public  
25 record.

1           So talking about the background for the  
2 project, the project is part of a regional plan, a  
3 portfolio of projects that was developed by the  
4 region's grid operator, MISO, or Midcontinent  
5 Independent System Operator. And MISO has been  
6 working on this plan and portfolio in phases since  
7 2020, and it's built on regional planning efforts  
8 that have been in progress for many years before  
9 that.

10           Ultimately, trying to take a look at,  
11 under the -- what they call their Reliability  
12 Imperative, what's needed to support a reliable  
13 regional electric transmission grid over the next  
14 couple of decades as the way we generate and use  
15 electricity continues to evolve and change.

16           The first portfolio of projects,  
17 Tranche 1, was approved by MISO in 2022, and those  
18 are the gray lines you see on the map there. The  
19 ISA project, as you see outlined in the blue box up  
20 toward the top of the screen, is a part of the  
21 Tranche 2.1 portfolio -- the second group of  
22 projects -- which was approved by the MISO Board in  
23 2024.

24           And the way that I would characterize  
25 this is if you think about the grid that we use

1 today, it was largely built in the '50s, '60s, and  
2 '70s, and a lot has changed about the way that we  
3 use electricity, the way electricity is generated  
4 since that time, and, yet, we're still using largely  
5 the same power grid. And we need -- for the future  
6 of where we're headed with clean energy transition  
7 and electrification and different things like that,  
8 we need an interstate highway system for the power  
9 grid.

10 And so that's what the MISO LRTP is  
11 seeking to do, is to develop a large transmission  
12 overlay across multiple states that can facilitate  
13 the movement of power around the region in the ways  
14 that it needs to to deliver energy from where it's  
15 being produced to where it's going to be used, and  
16 to allow utilities to lean on each other.

17 So MP and ATC, as the transmission owners  
18 at the endpoints of this Iron Range - St. Louis  
19 County - Arrowhead project, have an obligation now  
20 to deliver the project as it was approved by MISO.  
21 So that's why we are here today, we're proposing the  
22 project, come up with a route, and we're moving it  
23 forward.

24 So just to reiterate, this is part of a  
25 regional portfolio of projects developed by MISO for

1 regional reliability purposes. The project is not  
2 intended to address the needs of any individual  
3 customer or generator, and we'll talk a little bit  
4 more about that in a couple of minutes.

5 You can go to the next slide.

6 These are some of those -- those benefits  
7 of the portfolio and of the project that are  
8 discussed in the certificate of need application.  
9 You see listed on the top there, the overall  
10 portfolio benefits as identified by MISO, which we  
11 discussed in Section 2.3 of the application:  
12 Enhancing grid reliability in the Upper Midwest, as  
13 grid operating conditions become more variable,  
14 giving us a more flexible transmission system;  
15 increasing grid efficiency as energy is transferred  
16 from where it's produced to where it's needed; and  
17 meeting the growing demand for reliable clean energy  
18 in the Upper Midwest.

19 We, the Applicants, took this specific  
20 project, and in developing the application, we  
21 looked at, well, what does this project bring to the  
22 portfolio and to our region? And so we have some  
23 discussion of that in Sections 3.4 and 3.5 of the  
24 application, in demonstrating how the Iron Range -  
25 St. Louis County - Arrowhead, as a part of that

1 portfolio, provides increased and more flexible  
2 regional transfer capability in multiple directions,  
3 in and through the state of Minnesota and into  
4 Northwest Wisconsin. As well as enhancing local  
5 grid reliability, providing redundant paths for  
6 power transfers in and through Northern Minnesota.

7 If you go to the next slide, I'll  
8 address -- now, one thing that we talk about in the  
9 application that's specific to this project is  
10 called the 800 MVA limit at the ATC Arrowhead  
11 substation, which is one of the endpoints for the  
12 project.

13 MVA is the, sort of, engineering word for  
14 just the amount of power that's allowed to flow  
15 through that substation, and that is a regulatory  
16 limit that was placed on power flow into Wisconsin  
17 through that Arrowhead substation at the time that  
18 substation was established, as part of what you see  
19 there, what's called the Arrowhead - Weston 345-kV  
20 line project.

21 And that was permitted back in the early  
22 2000s, and, at that time, there were concerns  
23 expressed over an increase in transfers of  
24 coal-fired generation from North Dakota flowing  
25 through Minnesota into Wisconsin utilizing that

1 345-kV connection, and that's part of the origin of  
2 that 800 MVA limit.

3 Now, if you think about it, a lot's  
4 changed since the early 2000s. Just take Minnesota  
5 Power, for example. Drew mentioned today that --  
6 well, Minnesota Power was the first utility in  
7 Minnesota to serve our customers with over  
8 50 percent renewable energy, and we're well north of  
9 that a lot of times today.

10 But in the early 2000s, we were  
11 95 percent coal-fired energy, utilizing that to  
12 serve our customers. And a lot of our neighbors,  
13 our neighboring utilities in the region, have gone  
14 through that same transition. It's a very different  
15 grid, it's a very different energy mix today from  
16 what it was in the early 2000s.

17 And, in fact, part of the purpose of the  
18 MISO Tranche 2 portfolio, LRTP portfolio, is to  
19 increase regional transfers to move renewable energy  
20 and other forms of energy around the region. And so  
21 the 800 MVA limit, the removal of the 800 MVA limit,  
22 is necessary as part of this project to achieve the  
23 regional benefits of the project to remove those  
24 obstacles to achieving those transfers across the  
25 grid that are now needed, and needed largely to

1 facilitate the movement of renewable energy today.

2 So we want to make it clear, we discussed  
3 the 800 MVA limit in the background in the  
4 application and the reason it needs to be removed as  
5 a part of this project, but we want to also make it  
6 clear that it's not related to any local needs. The  
7 800 MVA limit and our request to remove it is part  
8 of that regional justification -- regional  
9 reliability justification of the project.

10 So that brings us to my last slide, the  
11 next slide. We acknowledge that there have been a  
12 number of comments in the docket made over the last  
13 few months regarding a proposed data center in  
14 Hermantown near the endpoint of the project.

15 So we just want to take a couple moments  
16 here to clarify upfront during the meeting that  
17 situation. We're here today because the ISA project  
18 was developed and approved by MISO for regional  
19 reliability, as we were just talking about. And  
20 that is a planning process that's been in the works  
21 since 2020, and built on planning studies and  
22 renewable integration studies and future studies  
23 that go back even well before that.

24 And the ISA project, as a concept, has  
25 been around for more than a decade, and there are --

1 those of us at Minnesota Power who were around when  
2 we actually held public open house meetings through  
3 the project area for a project very similar to this  
4 in 2013. And need for that project didn't  
5 materialize at the time, but that concept stuck  
6 around. And now that need has materialized, and  
7 MISO has moved the project forward and approved it.  
8 And like I said earlier, now MP and ATC have an  
9 obligation to deliver the project.

10 So this project, like other transmission  
11 projects in the area recently reviewed/approved by  
12 the Commission, like the Duluth Loop project and the  
13 HVDC modernization project, was proposed and  
14 justified to support grid reliability. It's not  
15 related to the needs of any individual customer or  
16 data center.

17 So to make it really clear, if there was  
18 no proposed data center in Hermantown, we would  
19 still be here today discussing and proposing the ISA  
20 project based on the work that MISO has done and the  
21 justification and approval of that in December of  
22 2024.

23 There is a separate docket with an  
24 electric service agreement associated with that  
25 proposed Hermantown data center, and that's been

1 filed with the Commission. You see the docket  
2 number there. That's really the place to have that  
3 conversation about the data center. This is -- this  
4 ISA project, again, is for those regional needs that  
5 we've discussed.

6 So with that, I think I'll hand it back  
7 to Drew to talk about the route and the  
8 environmental assessment.

9 MR. DREW JANKE: Thank you, Christian.

10 So, yeah, beginning here with the  
11 proposed route that was developed for the route  
12 permit application side of our combined application  
13 here. So for the ISA project, we have come up with  
14 a proposed route that co-locates with existing  
15 high-voltage lines for about 92 percent of the  
16 overall proposed route length.

17 And when we say "co-locate," we mean  
18 either routed adjacent to an existing high-voltage  
19 line right-of-way or largely overtaking and  
20 expanding of it -- of an existing high-voltage line  
21 right-of-way.

22 The proposed route is broken down into  
23 three separate segments. So looking at Segment 1,  
24 which is highlighted in orange on the map here,  
25 begins at the Iron Range substation -- the northwest

1 terminal point of the project -- and runs to a point  
2 just north of the St. Louis River just outside of  
3 Floodwood. For Segment 1, the proposal is to route  
4 the ISA project adjacent to an existing 230-kilovolt  
5 transmission line right-of-way.

6 And then Segment 2 begins, at that point,  
7 just north of the St. Louis River outside of  
8 Floodwood, and the endpoint for Segment 2 is the  
9 St. Louis County substation just outside of  
10 Hermantown. For Segment 2, our proposal is to  
11 largely overtake an existing 230-kilovolt  
12 transmission line right-of-way and expand the  
13 existing right-of-way by about 20 feet to  
14 accommodate the ISA structures. Within Segment 2,  
15 also, our proposal is to hang the -- or string the  
16 existing 230-kV line on the other side of the  
17 double-circuit capable structures.

18 And then rounding out here with  
19 Segment 3, that is about a one and a half mile  
20 segment proposed to run between the St. Louis County  
21 substation and ATC's Arrowhead substation, and that  
22 is proposed as double-circuit 345-kilovolt.

23 The project timeline, I'll start with,  
24 you know, kind of where we've been over the last  
25 year and change. So 2025 was real heavy with the

1 stakeholder engagement and routing process.  
2 Throughout most of last year, we were heavy on  
3 consulting with relevant state and federal agencies,  
4 as well as, you know, local representation, as well  
5 as landowners. We did hold a couple of rounds of  
6 public open houses last year along our potential  
7 routing areas and used that feedback to develop our  
8 eventual proposed route.

9 Where we're at today, in this year here,  
10 is obviously heavy on the permitting front. So  
11 we're getting started on that process. With -- you  
12 know, throughout the rest of this year and into the  
13 next couple of years, we'll be running with  
14 engineering, environmental surveys, right-of-way  
15 acquisition, and then also continue that public  
16 engagement piece as we go along. Assuming all goes  
17 well, construction would begin in 2029, and the  
18 project would be in service by 2032.

19 And so as part of the route permit  
20 application, we, the Applicants, prepared an  
21 environmental assessment for the project. And here  
22 on this slide, just to level set on what an  
23 environmental assessment is and isn't, so what it  
24 is, it describes the proposed project and any  
25 alternatives that were considered, and it studies

1 the potential human and environmental impacts of the  
2 project.

3 The environmental assessment, or EA,  
4 identifies strategies to avoid, minimize, and also  
5 to mitigate potential impacts to both human and  
6 environmental resources. A lot of times some of  
7 those mitigation efforts that are identified within  
8 the EA come out and make it through as permit  
9 conditions within the eventual route permit. The  
10 environmental assessment itself does not advocate  
11 for or against the project.

12 Going a little further here on what we do  
13 evaluate within that environmental assessment that  
14 was included as an appendix to the combined  
15 application. So it looks -- as I mentioned, the EA  
16 evaluates a number of resources from both a human  
17 and environmental perspective. And you can see the  
18 list there, and I won't read them off verbatim.

19 So I think we can go to the next slide.

20 The next few slides here show a few of  
21 the resources that are evaluated within the EA,  
22 beginning here with aesthetics and recreation. So  
23 we realize, you know, there may be some potential  
24 impacts, taller structures for the ISA project than  
25 what is typically out there existing.

1                   Next slide. Yeah, thanks.

2                   So public services and transportation, as  
3 well as land-based economies, were a couple of other  
4 resources that are evaluated within the AA -- EA.  
5 I'll draw attention here to the land-based economies  
6 resources. One item that we've recently developed  
7 is an agricultural impact mitigation plan, and that  
8 was developed in coordination with the Minnesota  
9 Department of Agriculture and has been recently  
10 filed and is available for review.

11                   Continuing on here, archeological  
12 resources, as well as water resources. For both of  
13 these resources, we coordinate fairly heavily with a  
14 few state and federal agencies. On the  
15 archeological resources front, we coordinate early  
16 and often with the State Historic Preservation  
17 Office.

18                   And, then, water resources, again,  
19 coordinating at the federal level with the U.S. Army  
20 Corps of Engineers. As well as at the state level,  
21 we're relevant with the Department of Natural  
22 Resources, as well as the Pollution Control Agency.

23                   And then rounding out the resources  
24 slides here with wildlife and vegetation resources.  
25 So, again, the EA goes in and discusses potential

1 impacts and mitigations that may come out as permit  
2 conditions for both of these resources.

3 Specifically for the vegetation, similar to our  
4 agricultural impact mitigation plan, we develop a  
5 vegetation management plan for the project, which  
6 undergoes review by the State's interagency working  
7 group, so that is to come.

8 So I mentioned when we were looking at  
9 the project timeline, really the last year and  
10 change has been pretty heavy on stakeholder  
11 engagement and coordination. So we did launch a  
12 project website in May of 2025. That's been updated  
13 a few times and will continue to be updated as we go  
14 here. So it's a great source of information. We  
15 did hold a couple of rounds of public open houses as  
16 we were developing the route last year.

17 And, then, really over the last year --  
18 and we'll continue to do so -- is engagement with  
19 interested Tribal nations, local government units,  
20 both at the county and township level. As well as  
21 federal and state agencies, some of whom I  
22 referenced when we were looking at those EA slides.

23 And I'm to my last slide here. So, you  
24 know, we've been heavy on the engagement front over  
25 the last year. We don't anticipate that going away,

1 so we're still here. You can connect with us  
2 directly, either at the email listed here, we also  
3 have a project phone number hotline that's listed.  
4 And all of this is available on our project website  
5 where you can also leave a comment directly for us,  
6 in addition to the formal PUC comment process.

7 So thank you.

8 MS. EMILY JOHNSON: Okay. Good evening,  
9 everybody. My name is Emily Johnson. I am an  
10 environmental review manager with the Public  
11 Utilities Commission. We, first, just want to thank  
12 you all tonight for coming to attend this meeting.  
13 Our staff relies on your participation and input in  
14 the process to build a complete record for the  
15 decision-making process for this project.

16 Tonight, I'll discuss the State's  
17 permitting process and the ways that you can provide  
18 input to help inform that process. When the  
19 Commission decides on a permit, they consider the  
20 human and environmental impacts of the project and  
21 ways to reduce those impacts.

22 Impacts can include things like  
23 construction noise; aesthetic impacts from tree  
24 clearing or new infrastructure; wildlife habitat  
25 fragmentation and so on. Mitigation measures can

1 include things like limiting construction to  
2 daylight hours, alternative routing, tree  
3 replacement plans, and more.

4 The Commission applies standard and  
5 special permit conditions to address impacts and  
6 tracks compliance throughout the life of the project  
7 if it is permitted. You can help by providing input  
8 about those local resources, local unique  
9 characteristics, impacts, and ways to reduce those  
10 impacts.

11 Next slide.

12 A sample permit is the starting point of  
13 the permitting process. It includes standard permit  
14 conditions that apply to all transmission projects.  
15 After the comment period concludes and we've  
16 gathered your input, we use that input to develop a  
17 draft permit that will contain special permit  
18 conditions specific to the project being proposed.

19 It's important to note that a draft  
20 permit does not allow the Applicant to construct the  
21 project. It is simply a starting point in the  
22 Commission's decision-making process. There will be  
23 an opportunity to comment on the draft permit at  
24 public hearings later in the process, and I'll talk  
25 about that in a little bit.

1                   Next slide.

2                   So this is just a visual representation  
3 of what I just talked about. We start with a sample  
4 permit that's the same for all transmission  
5 projects. We, then, develop a draft permit based on  
6 public input, and the final permit is ultimately  
7 what the Commission will make its decision on.

8                   Next slide.

9                   By law, applications must include an  
10 environmental assessment that contains information  
11 on the human and environmental impacts of a project  
12 and ways to mitigate those impacts. The  
13 environmental assessment was included as Appendix E  
14 of the application. The application is available at  
15 local libraries close to the project. It's also  
16 available on the Commission's project webpage and on  
17 the eDockets filing system.

18                   We ask you to review the application and  
19 the environmental assessment, and provide input on  
20 if there are any human or environmental impacts,  
21 unique local characteristics that you notice are  
22 missing from the EA, and if there are any mitigation  
23 measures that you would like to see evaluated  
24 further. The input we receive on these topics will  
25 help the Commission determine whether an EA addendum

1 is needed. So that is something that our staff  
2 would prepare.

3 Next slide.

4 Saarah mentioned that this project is a  
5 combined route permit application and certificate of  
6 need application. Certificate of need proceedings  
7 require our staff to provide -- or prepare an  
8 environmental report. Environmental reports  
9 describe the proposed project and system  
10 alternatives that could still meet the need of the  
11 project. They assess the impacts of the project and  
12 alternatives, and they identify strategies to avoid  
13 and mitigate those impacts.

14 So system alternatives could include  
15 things like size, type, and timing. Size examples  
16 could include different voltages or lengths for the  
17 project. Examples of type could include different  
18 structure types and configurations, alternative  
19 routing, or different non-transmission energy  
20 facilities. Timing could mean that the project  
21 could be sooner, later, or not happen at all.

22 So at this point in the process, we are  
23 looking for your input on if there are other ways to  
24 meet the stated need of the project instead of the  
25 proposed transmission line. And if so, what

1 alternatives to the project should be studied in the  
2 environmental report.

3 Next slide.

4 So some topics for comment, this is kind  
5 of a summary of what we just talked about. The  
6 first, Are there potential human or environmental  
7 impacts, unique characteristics, or mitigation  
8 measures, including route alternatives, for the  
9 proposed project that need further development and  
10 an EA addendum?

11 The second, Are there practical methods  
12 to minimize, mitigate, or avoid potential impacts  
13 that the Commission should include as conditions in  
14 a draft permit? And the third, Are there other ways  
15 to meet the stated need for the project instead of  
16 the proposed transmission line; and if so, what  
17 alternatives to the project should be studied?

18 Next slide.

19 So what happens next? Based on the  
20 information in the record, including the input we  
21 gather during this comment period, the Commission  
22 will make three preliminary determinations. The  
23 first is, Is an environmental assessment addendum  
24 necessary? The second, What conditions should the  
25 Commission include in a draft permit? And the

1 third, What alternatives to the project should be  
2 included in the scope of the certificate of need  
3 environmental report?

4 Next slide.

5 So this slide outlines the tentative  
6 review schedule for the project and key milestones  
7 in the State's permitting review process. The rows  
8 highlighted in blue represent opportunities for  
9 public comments. So as you can see, this is not  
10 your only chance to comment on this project. The  
11 star represents where we are currently at in the  
12 process. The Commission accepted the application as  
13 complete on January 20th, which officially started  
14 the State's review.

15 We are currently holding these public  
16 information meetings this week, and the comment  
17 period will remain open through April 23rd. In June  
18 or July -- and based on public input -- the  
19 Commission will issue the draft route permit, decide  
20 whether the EA addendum is needed, and determine the  
21 scope of the environmental report.

22 We expect that a draft permit and  
23 environmental report will be issued in fall of 2026,  
24 along with an EA addendum if it is needed. Public  
25 hearings are expected to follow in the fall, along

1 with a second public comment period. After the  
2 hearing comment period closes, a public hearing  
3 report will be filed.

4 The Commission will consider the entire  
5 record before making a decision on both the  
6 certificate of need and route permit applications,  
7 likely in the fall or winter of 2026. That permit  
8 decision will be made in an open public meeting that  
9 you are all welcome to attend.

10 Next slide.

11 So how to comment: You can provide  
12 verbal comments at tonight's meeting. You could  
13 complete and submit a written comment sheet. You  
14 can comment online at this link provided here.  
15 That's just our Public Utilities Commission webpage.  
16 You can find the public comment link from the main  
17 webpage as well. You can email me directly. My  
18 email is listed here, and we can put it back up at  
19 the end of the meeting if you need it. And then you  
20 can send physical mail as well to the Public  
21 Utilities Commission with my name.

22 The comment period ends April 23rd at  
23 4:30 p.m., so please try to get your comments in by  
24 that time.

25 So -- oh, sorry, you can go ahead.

1           Okay. So we will open it up for comments  
2 here. I ask that when we do call on you, you state  
3 and spell your first and last name for the court  
4 reporter. We ask that you speak loudly and clearly  
5 so the court reporter can hear you. We ask that you  
6 maintain respect for others. We all can agree that  
7 reasonable people can disagree, so we might have a  
8 difference of opinion, but we're here to hear from  
9 everyone tonight.

10           To ensure everyone is heard, please limit  
11 your initial comments to five minutes. We do have  
12 quite a few people online, we'll probably enforce  
13 that. You can always come up to speak again if  
14 there is time at the end.

15           To indicate that you would like to ask a  
16 question or provide a comment, you can click the  
17 raise-your-hand button in Webex or send a chat  
18 message to indicate that you want to speak. And  
19 that's highlighted right here with the raise-hand  
20 button on the slide. And, then, to those who are  
21 listening in on the phone, you can press \*3, and  
22 that will tell us that you want to comment.

23           So we will go ahead and open it up for  
24 comments.

25           And, Saarah, I think we can just leave

1 this slide up so that everyone can see.

2 MS. SAARAH MAXON: Yeah, sounds good.

3 MS. EMILY JOHNSON: Great.

4 MS. SAARAH MAXON: We have one person  
5 raising their hand. It doesn't have your name  
6 listed, but it starts with a phone number, it says,  
7 218. So I'm going to unmute you quickly. Sorry,  
8 one second.

9 For some reason it's not letting me  
10 unmute them. One second. Sorry about that, folks.

11 Oh, it looks like I can. We'll come back  
12 to you. I'm sorry. I don't know your name. I'm  
13 not sure why we can't unmute you, but I'll try and  
14 figure that out, and we'll go to the next person in  
15 the meantime.

16 Maggie Schuppert, I'm going to unmute  
17 you, and then you can feel free to speak.

18 MS. MAGGIE SCHUPPERT: Thank you. Hi.  
19 Yeah. I have a question, and then I also have a  
20 comment/recommendation, but I guess I'll come back  
21 around for the second one. Yeah, my name is Maggie  
22 Schuppert, M-A-G-G-I-E; Schuppert,  
23 S-C-H-U-P-P-E-R-T.

24 I just had a question about the cost of  
25 this project, which I don't think was covered in the

1 presentation. I was a couple minutes late. So,  
2 yeah, I just -- if someone could address what the  
3 cost of the project is.

4 But, also, if and how those cost  
5 estimates -- recognizing that they're estimates at  
6 this point -- might have changed since MISO approved  
7 the project back in 2024, I believe it was.

8 MR. CHRISTIAN WINTER: Okay. Yeah, we  
9 can address that here. This is Christian Winter  
10 here, again, with Minnesota Power.

11 The project -- the current cost estimate  
12 of the project is given in Section 2.4 of the  
13 application. The estimated cost, we give a range,  
14 the mid to high range. The midpoint, which is the  
15 anticipated cost estimate, is 441 -- or  
16 444.1 million.

17 That cost is a little higher than the  
18 original MISO cost estimate, and that is largely due  
19 to the development of the route for the project. As  
20 we're given a, kind of, concept from MISO, a line on  
21 the map, and then we, as the Applicants, are  
22 entrusted with the obligation to go and figure out  
23 how to best -- or propose how to best locate that.

24 The MPUC ultimately has the authority to  
25 make the final decision on the route, as we were

1 just talking about. But in coming up with our  
2 proposed route, the length of the project and some  
3 of the engineering costs were higher than the MISO  
4 conceptual assumptions.

5 MS. MAGGIE SCHUPPERT: And, sorry, just a  
6 quick follow up. You said there was a range. So  
7 that was the low range you cited -- or, yeah, could  
8 you explain what the range is? Thanks.

9 MR. CHRISTIAN WINTER: Yeah. I can give  
10 you the range. It's in the same table. So the  
11 anticipated cost, which we call the midpoint of the  
12 project, is 444.1 million. The high end cost is  
13 519 million in the application.

14 MS. MAGGIE SCHUPPERT: Thank you.

15 MS. EMILY JOHNSON: Maggie, you still  
16 have some time left if you would like to continue  
17 with your comment.

18 MS. MAGGIE SCHUPPERT: Yeah, sure. So my  
19 comment and recommendation, I guess, may be somewhat  
20 associated with the question of cost, but also, sort  
21 of, you know, the question of need and also just who  
22 the project is for. You know, I certainly have  
23 heard, you know, that you've been hearing from folks  
24 who are concerned about the data center, and that  
25 this line was approved before -- by MISO at least,

1 before the data center was known, at least publicly.

2 And even -- but should we take that as  
3 something of a given? You know, I think we do know  
4 that the data center is coming to the area because  
5 of these kinds of infrastructure upgrades, and so I  
6 think that does need to be acknowledged. That even  
7 if the line was still going to be in place and  
8 upgraded, that perhaps the data center would not be  
9 siting itself here were these projects not going  
10 forward.

11 But setting that aside, I think what  
12 Minnesota Power is saying is that this line was  
13 approved for -- for energy export reasons. And so  
14 in either case, I think what we're hearing is that  
15 the need for this project doesn't really have a lot  
16 to do with the residents of the area or the  
17 residential customers of Minnesota Power.

18 And so should this project be approved  
19 and permitted -- putting an emphasis on "should" --  
20 I would really like to see stronger community  
21 benefits, either required by the PUC or engaged --  
22 you know, a process engaged by the Company, to put  
23 in place far stronger community benefits for the  
24 folks who are going to be most directly impacted,  
25 whether that be the residents of Hermantown or the

1 Arrowhead or Minnesota ratepayers.

2 Thanks.

3 MS. EMILY JOHNSON: Thank you very much  
4 for that, Maggie. That is the kind of input we're  
5 looking for when we develop these special permit  
6 conditions, so thank you very much.

7 Is there someone else with their hand  
8 raised? Were you able to unmute that one commenter?

9 MS. SAARAH MAXON: The person who had  
10 raised their hand initially put it down. So if  
11 you'd like to speak, feel free to hit \*3 once more,  
12 and we can see if we can get it to work.

13 MS. EMILY JOHNSON: And I'll just also  
14 say, I know I'm looking down a lot, but I'm just  
15 taking notes. So I'm not distracted or anything,  
16 I'm listening to your comments.

17 MS. SAARAH MAXON: Okay. For the person  
18 raising their hand on the phone, would you mind  
19 pressing \*6? I think you might have to do that to  
20 be able to unmute. If not, I'm going to try and  
21 make you a panelist, so you should be able to  
22 unmute. Okay. Let me try this, I'm going to try  
23 and make you a panelist. One second, bear with me.  
24 And then try hitting \*6. Sorry about this. Yeah,  
25 try that. Yeah, you should be able to speak now.

1 MS. KELLY HOLTE: Can you hear me?

2 MS. SAARAH MAXON: Yes, we can hear you.  
3 Sorry about that.

4 MS. KELLY HOLTE: Okay. My name is Kelly  
5 Holte, K-E-L-L-Y, H-O-L-T-E, and I have a few quick  
6 questions.

7 One, with putting in this transmission  
8 line, what's that going to do to our electric bills?  
9 Are our bills going to skyrocket?

10 MS. EMILY JOHNSON: So, Kelly, that is  
11 something that the Commission considers whenever  
12 they, you know, move to make a decision on these  
13 projects. So I encourage you to follow the process  
14 for that. I can't speak to the ultimate decision  
15 that's made, but that is -- cost is a consideration  
16 and how it will affect the ratepayers.

17 MS. KELLY HOLTE: So I don't understand  
18 how I'm supposed to do that.

19 MR. CHRISTIAN WINTER: Emily, I can speak  
20 to that, too, because the --

21 MS. EMILY JOHNSON: Okay. That would be  
22 great.

23 MR. CHRISTIAN WINTER: -- we were just  
24 trying to get ourselves off mute here, technology  
25 and that all.

1 MS. EMILY JOHNSON: Okay. Sounds good.

2 MR. CHRISTIAN WINTER: This is Christian  
3 Winter with Minnesota Power, again.

4 As we were talking about, the project  
5 cost is covered in the application. There is a rate  
6 impact estimate given in the application in that  
7 same section, 2.4.

8 MS. KELLY HOLTE: I don't have that, and  
9 I don't have access to it. I don't own a computer.

10 MR. CHRISTIAN WINTER: Maybe, yeah --

11 MS. EMILY JOHNSON: Kelly -- yeah, Kelly,  
12 we can certainly provide you a copy of the  
13 application with that section especially. I know  
14 I've -- I have sent you some stuff in the mail  
15 before, so I'd be happy to coordinate that offline  
16 as well, off this meeting.

17 MS. KELLY HOLTE: Okay.

18 MS. EMILY JOHNSON: Yeah.

19 MS. KELLY HOLTE: Okay. And then I have  
20 questions on the pesticides and stray voltage for  
21 the environmental impact, the animals and humans.

22 MS. EMILY JOHNSON: Well, so, Kelly,  
23 that's also covered in the application, and I can  
24 provide those sections as well. And that way, if  
25 you are able to review that and you find anything

1 missing from their analysis, we can certainly look  
2 at that as far as if it's needed for an  
3 environmental assessment addendum, and then our  
4 staff would certainly analyze that further.

5 So I want to remind you, this is the  
6 first step in the process. We're gathering input on  
7 whether the application contained all the needed  
8 information, or if we need to go back and provide an  
9 addendum to it. So that's what we're here for, and,  
10 again, I can circle back with you offline, if that  
11 would help as well, to get you the information you  
12 need from the application.

13 MS. KELLY HOLTE: Okay. Thank you.

14 MS. EMILY JOHNSON: Thank you. Do you  
15 have anything else to say, Kelly?

16 MS. KELLY HOLTE: No, not at this moment.

17 MS. EMILY JOHNSON: Okay. Thank you.

18 Anybody else? I'm not seeing any hands  
19 up, so...

20 MS. SAARAH MAXON: Okay. It looks like  
21 we have one hand up, Steven Parker. I'm going to  
22 unmute you, and then feel free to speak. And I  
23 think you can unmute yourself now.

24 Emily, do you want to try? You should  
25 have the ability.

1 MS. EMILY JOHNSON: Yeah, it's not  
2 letting me unmute people.

3 MS. SAARAH MAXON: Oh, Steven, he might  
4 have put his hand down. I can't tell. If you do  
5 have a comment and you meant to speak, feel free to  
6 go ahead. For some reason it's not -- okay. I'm  
7 going to try and make him a panelist as well, and  
8 then, Steven, you should be able to unmute yourself.  
9 It looks like we might be having some technical  
10 difficulties.

11 There you go. You just came off mute, so  
12 I think you're good to speak if you're ready.

13 MR. STEVEN PARKER: All right.  
14 S-T-E-V-E-N, P-A-R-K-E-R, Steven Parker.

15 I guess I'd like to make one, first,  
16 comment that was on my mind, but if time allows in  
17 this meeting that's going to go until 8:00 p.m.,  
18 when -- if people ask questions and you have time to  
19 answer the question, could you please do so instead  
20 of defaulting back to the application? It would  
21 help, maybe, drive more questions by people that are  
22 online.

23 Okay. Getting back to my -- my concern  
24 is more directly by personal impact and how it  
25 affects the landowners along this transmission line

1 in the Segment 2. Now, I don't see anything in  
2 today's presentation that shows what the power  
3 lines' configurations are going to be going through  
4 Segment 2. I'd like to see that.

5 For my personal parcels, I have three  
6 parcels that this transmission line is going to go  
7 through. I have two already going through there  
8 consuming about 12 acres of my land. With this  
9 third one, it could take another five acres of my  
10 land. And so, of those three parcels, just looking  
11 at the acreage that these transmission lines can  
12 consume, it basically takes all of my smallest  
13 parcel.

14 If you're just talking about acreage, my  
15 smallest parcel is just under 17 acres. So I'm  
16 going to lose 17 acres. I've already lost 12, lose  
17 another five possibly, and I think the other  
18 landowners along this power line in Segment 2 are  
19 similar -- similarly affected.

20 I don't know what the benefit is for us.  
21 You know, the previous caller mentioned the local  
22 benefits to Minnesota. As soon as I saw the grid  
23 work going off into Wisconsin, that really greatly  
24 concerned me as far as need. It seems like it's  
25 focused more there than in Minnesota.

1           I guess, that's where I'm at. I'd like  
2           to understand the environmental impacts from how  
3           this high-powered line is going to affect going  
4           laterally, left and right, onto our parcels, how  
5           much will be affected beyond just the 30- to  
6           130-foot easement that you're asking for.

7           With that, I think you can follow up with  
8           more comments either online or through your other  
9           process. Thank you.

10           MS. EMILY JOHNSON: Yeah. Steven, I'm  
11           just going to jump on here real quick, but I'm sure  
12           the Applicants can maybe speak to some of that as  
13           well. Steven, that is what our staff is here for,  
14           is to answer some questions. If you're concerned  
15           about how this project might affect your property  
16           and you want to suggest alternatives or mitigation  
17           measures and you're worried about impacts and ways  
18           to mitigate those impacts or reduce them, that's  
19           what I'm here for, especially.

20           So I would really encourage you to reach  
21           out to me, send me an email, give me a call  
22           sometime. I guess, my number wasn't in these  
23           slides, but I'd be happy to circle back with you  
24           after the meeting if you would like to speak more  
25           with me about how -- how to comment, and, you know,

1 tell us -- tell us your input and how this really  
2 affects you. But thank you for commenting, and I  
3 understand that this is -- can be a very frustrating  
4 process when you're a landowner and it's running on  
5 your property.

6 Minnesota Power, do you have anything you  
7 want to respond to?

8 MR. CHRISTIAN WINTER: Yeah. We can at  
9 least respond on the configuration, and, yeah, I  
10 apologize for that. I realized that actually on  
11 Tuesday partway through the day, we don't actually  
12 have the slide in the slide deck showing what the  
13 project looks like.

14 That's been in our open house meeting  
15 boards for the times that we've been out for open  
16 house meetings, and, of course, it's in the  
17 application, which doesn't help us too much right  
18 now. I don't know that we have a way to put it on  
19 the screen.

20 But speaking to the location in  
21 Segment 2, you know, where Mr. Parker is located,  
22 that is part of the project where we will be  
23 replacing the existing 230-kilovolt line through  
24 there.

25 There are two transmission lines going

1 through those parcels, but the wood pole H-frame  
2 transmission line would be replaced with the project  
3 on single steel pole structures. With that existing  
4 line on one side of the project and the proposed  
5 345-kV line -- new line on the other side of those  
6 poles. So there would still be, effectively, two  
7 sets of poles through there, albeit with a wider  
8 right-of-way than there is existing today. And, of  
9 course, we can provide more information on that,  
10 including what those structures would look like, I'm  
11 sure, if we can get in contact there and have a  
12 conversation.

13 MS. EMILY JOHNSON: Saarah, can you put  
14 back up the how-to-comment slide so Mr. Parker could  
15 take down my email at least?

16 MS. SAARAH MAXON: Yeah, and I think it  
17 would be a good idea for you to read out your email  
18 as well for --

19 MS. EMILY JOHNSON: Yeah.

20 MS. SAARAH MAXON: -- for folks who are  
21 dialing in.

22 MS. EMILY JOHNSON: Yeah, definitely. I  
23 meant to do that during the talk. I'm sorry. My  
24 email is Emily, E-M-I-L-Y, dot Johnson,  
25 J-O-H-N-S-O-N, 1, so the number 1, @state.mn.us. So

1 Emily.Johnson1@state.mn.us.

2 And if you -- if anyone listening goes to  
3 the Public Utilities Commission website and  
4 navigates to the website for this project off of  
5 that main webpage, you'll find both my email and my  
6 phone number there as well. So I encourage you to  
7 reach out to me with any questions you have about  
8 how to comment, the kinds of things we're looking  
9 for input on.

10 Yeah, and I also -- yeah, I really want  
11 to circle back with you, Steven, after -- after the  
12 meeting, so...

13 MS. SAARAH MAXON: Yeah. And just to  
14 interject and add one more thing, the webpage Emily  
15 was just referencing, you can find it on the  
16 Minnesota Public Utilities Commission website, and  
17 navigate to this project's webpage. There is an  
18 interactive map that you can use and input your home  
19 address to see where it is in relation to the  
20 proposed transmission line route. But if you don't  
21 have access to that, you can always reach out to  
22 Emily. We'll make sure to print out maps for you.

23 MS. EMILY JOHNSON: Um-hmm.

24 MS. SAARAH MAXON: We can send it through  
25 the mail directly to you. Just let us know anything

1 you need, we're here to help.

2 MS. EMILY JOHNSON: And, Steven, also my  
3 number, if you would like it, I'll put that out  
4 here, too. I should have had it on this slide. My  
5 number is 651-539-1023. And you can also just call  
6 the front desk at the Public Utilities Commission  
7 and ask to speak to Emily Johnson or the project  
8 lead for, you know, the Iron Range - St. Louis -  
9 Arrowhead project. So you can -- there's many ways  
10 to find me, so I encourage you to please do so.

11 MR. STEVEN PARKER: Thank you for your  
12 time and patience.

13 MS. EMILY JOHNSON: No, thank you. Thank  
14 you. We rely on this to build the project out and  
15 the record, so thank you.

16 MS. SAARAH MAXON: And I know we kind of  
17 talked through your allotted five minutes, but if  
18 there's anything else you wanted to say, Steven,  
19 please feel free to do so.

20 MR. STEVEN PARKER: I guess, at this  
21 point, I'm going to follow up with email and go from  
22 there.

23 MS. EMILY JOHNSON: Sounds good.

24 MR. STEVEN PARKER: I know that -- I know  
25 that they're in the process of trying to get access

1 agreements signed to do some of the environmental  
2 work, and, I guess, I don't fully understand all  
3 the -- all the reason and logic between an  
4 open-ended agreement.

5 MS. EMILY JOHNSON: Steven, we do have  
6 some information we've put together from the  
7 Commission about landowner rights, and maybe that  
8 would also be helpful for me to send to you when we  
9 get in touch.

10 MR. STEVEN PARKER: All right. Thank  
11 you.

12 MS. EMILY JOHNSON: Thank you.

13 MR. STEVEN PARKER: That's all from me.

14 MS. SAARAH MAXON: Okay. Would anybody  
15 else like to ask a question or comment? Please feel  
16 free to raise your hand.

17 I'll go back to the slide. If you are  
18 dialing in, you would press \*3. If you're joining  
19 us on the Webex call, you could just raise your  
20 hand, or feel free to put your comment or question  
21 in the chat directly.

22 Okay. One second, I see a number  
23 starting with 715. I'm going to make you a panelist  
24 because for some reason I have to do that, and then  
25 it looks like you're unmuted, so feel free to go

1 ahead. To the person on the phone raising their  
2 hand that starts with 715, I believe you're unmuted.  
3 If not, you might have to hit \*6 before speaking.  
4 Oh, it looks like that muted you. Oh, you're  
5 unmuted, go for it.

6 I see your hand is raised. It looks  
7 like, to us on our end, you're unmuted, but we can't  
8 hear you. Can you hit \*6 for me once more? And  
9 then hit \*6 one more time, and it looks like you are  
10 unmuted now from our end. It looks like you should  
11 be able to comment, so hopefully we can hear you  
12 soon.

13 I'm so sorry. I can see you muting and  
14 unmuting, and when you're unmuted, we still can't  
15 hear you. So I'm not sure if it's an issue on our  
16 end or if it's an issue on your end. I can try to  
17 circle back in a second and see if we can --

18 MS. EMILY JOHNSON: I will jump in and  
19 just say that all the comments here that are  
20 provided are being transcribed by a court reporter,  
21 so they will go into the record.

22 However, if for whatever reason we can't  
23 you get on the phone and maybe there's an audio  
24 issue, you can always write your comment to us,  
25 whether it be through physical mail, or like I

1 talked about in the presentation, through that link  
2 on our website. So there are many other ways to  
3 comment, and it all goes into the same record, so...

4 MS. SAARAH MAXON: Yeah, thanks for  
5 sharing that.

6 Okay. Let's try this one more time. If  
7 your number started with 715 and you had your hand  
8 raised, try hitting \*6 to unmute. And then you  
9 might have to also double check that it -- on your  
10 phone itself, you aren't muted. That would be  
11 separate.

12 MS. LINDA HANSON: Can you hear me?

13 MS. EMILY JOHNSON: Yes, there we go.

14 MS. SAARAH MAXON: I'm glad that worked  
15 out. Please go ahead, state and spell your name.

16 It looks like we lost you. Whatever you  
17 did before worked. It looks like you're unmuted.  
18 We'll try this one more time, if you hit \*6 and make  
19 sure that your phone is also unmuted, hopefully we  
20 can hear you.

21 I apologize, we really can't hear you. I  
22 hope that you heard Emily's email address. We can  
23 also read that out one more time, and possibly read  
24 out her phone number one more time and maybe you can  
25 get in contact with us after this meeting. I'm

1           sorry. I'm not sure what the issue is.

2                       MS. LINDA HANSON: Hello, can you hear me  
3 now?

4                       MS. SAARAH MAXON: Yes, we can hear you.

5                       MS. LINDA HANSON: Okay.

6                       MS. SAARAH MAXON: Oh, thank goodness.  
7 Please go ahead.

8                       MS. LINDA HANSON: Okay. L-I-N-D-A,  
9 Linda; Hanson, H-A-N-S-O-N.

10                      MS. EMILY JOHNSON: Thank you.

11                      MS. LINDA HANSON: Okay. My question is,  
12 it's connecting to the Arrowhead - Weston line, is  
13 that going to provide an additional load to the  
14 Arrowhead - Weston line where it would have to be  
15 beefed up? And how does that affect those other  
16 customers financially?

17                      MR. CHRISTIAN WINTER: Okay. This is  
18 Christian Winter with Minnesota Power once again.  
19 Yeah, we can respond to that.

20                      The project connects to the same  
21 Arrowhead substation that the Arrowhead - Weston  
22 345-kV line connects to. That line does not need to  
23 be upgraded at all in relation to the project. So  
24 its existing capacity is sufficient for the power  
25 flows that were identified in MISO studies.

1 MS. LINDA HANSON: And those customers  
2 that are on the Arrowhead - Weston line, will they  
3 be impacted financially, in other words, increased  
4 costs?

5 MR. CHRISTIAN WINTER: Those -- can you  
6 clarify, those customers that are on the Arrowhead -  
7 Weston line, are you talking about the people whose  
8 property the line crosses, or are you talking --

9 MS. LINDA HANSON: No, I'm talking about  
10 the customers that receive service from that line.

11 MR. CHRISTIAN WINTER: The Arrowhead -  
12 Weston line is a transmission line, so nobody  
13 receives direct service, as they would from a  
14 distribution line, off of that transmission line.

15 MS. LINDA HANSON: Right, but the thing  
16 is, is that if the cost increases along the line,  
17 then it will affect the customers that are on the  
18 distribution lines, correct?

19 MR. CHRISTIAN WINTER: No, it's not going  
20 to have an effect on the distribution lines.

21 MS. LINDA HANSON: Okay.

22 MR. CHRISTIAN WINTER: It's not going to  
23 increase the cost of the Arrowhead - Weston line  
24 either.

25 MS. LINDA HANSON: Okay. Thank you very

1 much.

2 MS. EMILY JOHNSON: Thank you, Linda.  
3 Did you have anything else you wanted to say or --

4 MS. LINDA HANSON: No, thank you.

5 MS. EMILY JOHNSON: Thank you. Thanks  
6 for attending.

7 MS. SAARAH MAXON: Yeah, and thanks for  
8 bearing with our technology issues, Linda.

9 MS. EMILY JOHNSON: Anybody else? We  
10 have a lot of time, almost an hour left, so...

11 MS. SAARAH MAXON: Oh, it looks like we  
12 have another taker.

13 MS. EMILY JOHNSON: Yeah.

14 MR. JIM KLUKKERT: Am I speaking now?

15 MS. SAARAH MAXON: Yeah.

16 MR. JIM KLUKKERT: I'm sorry. Okay. My  
17 name is Jim Klukkert. I'm a resident of Duluth.

18 MS. EMILY JOHNSON: Can you state and --  
19 can you spell your name, please? Thank you.

20 MR. JIM KLUKKERT: Yes, it's J-I-M. Last  
21 name is Klukkert, K-L-U-K-K-E-R-T.

22 MS. EMILY JOHNSON: Thank you.

23 MR. JIM KLUKKERT: You're quite welcome.

24 I'm opposed to -- I'm sorry, I'm coming  
25 in late, so I hope my remarks are appropriate and on

1 point. I'm opposed to the -- I was shocked and  
2 dismayed that the Public Utilities Commission went  
3 against all credible advice, including that of the  
4 Attorney General, and approved the sale of Minnesota  
5 Power, arguably a public utility, to the largest  
6 hedge fund manager in the universe. The disparity  
7 in power undercuts my belief that the average  
8 citizen will have any impact on any decisions made  
9 about this essential utility.

10 And at this point, we all know that  
11 electricity is second only to water in terms of its  
12 usefulness and necessity for a modern civilization.  
13 Imagine where we would be should our electricity be  
14 turned off.

15 I'm also opposed to the Hermantown data  
16 center as proposed. The very way that the data  
17 center was snuck -- it was sneaky, had a sneaky  
18 approach with the nondisclosure agreements. It's  
19 the very antithesis of democracy, and I don't think  
20 it's the way we like to do things up in this part of  
21 the world.

22 And so I think they have -- that Google  
23 has, besides being a behemoth of a scale that would  
24 defy our pleas quite easily, but Google has already  
25 demonstrated that it is not interested in being an

1 equal member of the community up here. It instead  
2 employs slights of hand that are antidemocratic.  
3 And, you know, water and democracy, two very  
4 important things to me, so I just wanted to register  
5 my opposition. Thank you for this forum to do so.

6 MS. EMILY JOHNSON: Thank you, Jim.

7 MR. JIM KLUKKERT: Anything else?

8 MS. EMILY JOHNSON: Well, you do have a  
9 little time if you'd like to keep going, if you have  
10 any other comments.

11 MR. JIM KLUKKERT: You know, I think once  
12 you've tried to subvert democracy and you have  
13 thrown your weight around, you pretty much have  
14 defined what kind of character your person or  
15 company has. And so I don't think I need to further  
16 make my case, it seems rather obvious.

17 However, given that I have a little bit  
18 of time, I'm reminded of a speech that Henry V made  
19 before a French town that he was laying siege to.  
20 And he went to the town fathers and made the speech  
21 that right now, we're all sitting out here and we  
22 haven't been able to batter the gates down. And,  
23 you know, right now, I can still control my men. If  
24 you'll acknowledge that we have won today and lower  
25 your gates , I promise I will control my men.

1           However, should my men have to break your walls down  
2           to get to you, I cannot tell you that they will  
3           behave civilly.

4                       Those of us that have opposed the data  
5           center, those of us that opposed the sale of  
6           Minnesota Power to BlackRock have done so in a very  
7           civil fashion. We've been calm, we've been civil,  
8           we've been polite. However, should this all go  
9           wrong, I may not be here to urge my comrades -- my  
10          angry, hurt comrades to be civil in their treatment  
11          of whatever is left. So I urge all parties to  
12          withdraw from the field and just put this project on  
13          the back burner. Thank you very much.

14                      MS. EMILY JOHNSON: Okay. Thank you,  
15          Jim. There was a lot there, but I will go back to  
16          something that was in the presentation, and just to  
17          reiterate that we are not -- the PUC is not  
18          permitting the data center, so I do want to make  
19          that clear.

20                      There is a -- of course, I'm sure many of  
21          you are aware that the city of Hermantown has an  
22          open comment period right now for the AUAR on the  
23          data center. I encourage you to comment there on  
24          that.

25                      I also -- Minnesota Power also presented

1 about the electric service agreement petition that's  
2 been filed by MP with the Public Utilities  
3 Commission. That is under Docket 26-159. It's the  
4 last bullet on this slide that Saarah just pulled  
5 up, and I encourage you to comment there as well.  
6 That is a PUC docket, so you are more than welcome  
7 to comment on that.

8 There will be a comment period associated  
9 with that project, but we have been told that we  
10 will accept comments on that project right now as  
11 well. So those are probably your best avenues to  
12 comment on the data center issue.

13 But, yes -- and I'll just throw out that  
14 I know there's a lot of frustration in the local  
15 community with the way that the data center stuff  
16 has been handled. We can't speak to that as the  
17 Commission, but we do not sign NDAs. And we are  
18 here to listen to you, and thank you for providing  
19 that input, as, you know, all of it is very  
20 important. So thank you, again.

21 And we'll move on to whoever is next,  
22 Saarah.

23 MS. SAARAH MAXON: If anybody else would  
24 like to comment or ask a question, please feel free  
25 to. If you're in Webex, hit the raise hand

1 function, or if you're dialing in, hit \*3.

2 MS. EMILY JOHNSON: While we have a  
3 minute here, with -- I don't see anyone's hand up  
4 yet, I will -- let's go back to the slide with my  
5 contact information, and I'll also read that off.  
6 Thank you. My email, again, Emily, E-M-I-L-Y, dot  
7 Johnson, J-O-H-N-S-O-N, 1, @state.mn.us. And my  
8 number is 651-539-1023. Feel free to call me, email  
9 me any time with questions about the process. I'm  
10 happy to help you in any way I can.

11 We'll give it a couple more minutes here.  
12 I'm sure there are probably other people who would  
13 like to comment. So if we -- if you would like,  
14 just press \*3 if you're on the phone to show that  
15 you want to speak, or raise your hand, if you're on  
16 Webex, down at the bottom where it says "raise."

17 MS. SAARAH MAXON: And I'll just say that  
18 if we don't have any new folks that want to comment  
19 or ask questions and you've already provided a  
20 comment or asked questions, feel free to raise your  
21 hand or hit \*3 as well. We've got, it seems, plenty  
22 of time to hear from everyone.

23 Thanks, Maggie. I'm going to unmute you  
24 on my end.

25 MS. EMILY JOHNSON: Can you restate and

1 spell your name again when you come on?

2 MS. MAGGIE SCHUPPERT: Sure, yeah. And I  
3 appreciate it, and thank you for letting make take  
4 up a little more time. Maggie Schuppert,  
5 M-A-G-G-I-E, S-C-H-U-P-P-E-R-T.

6 And, I guess, just given the time, I just  
7 sort of wanted to maybe return to Linda's question,  
8 which I think -- I think, if I'm interpreting  
9 correctly, was a question really how this line  
10 upgrade -- and perhaps future line upgrades -- put  
11 to the Arrowhead - Weston line -- I realize that's  
12 maybe not on the table right now, but it seems like  
13 it was a question about how this would affect  
14 ratepayers and folks in the region generally.

15 And to -- also, maybe, to uplift one of  
16 the points that Steve made, which is someone else  
17 asked a similar question and it wasn't really  
18 answered. So, yeah, I guess if someone could  
19 address that question directly, that would be great.

20 MR. CHRISTIAN WINTER: Thank you. Yes, I  
21 can respond to that. This is Christian Winter with  
22 Minnesota Power.

23 I will just -- I just want to make sure  
24 everybody knows where to go for the information. So  
25 that's why I do want to point you to the application

1 in Section 2.4., right, where the costs are  
2 discussed. There's discussion about MISO cost  
3 allocation in Section 2.4.3.1.

4 So for this project, because of the way  
5 that it was approved under the MISO tariff and the  
6 regional benefits that MISO was able to demonstrate,  
7 the costs of the project will be spread out across  
8 that eight- or nine-state region that you saw on the  
9 front -- on the earlier slide with the Tranche 2.1  
10 portfolio. And those costs will be spread out and  
11 shared by all users of electricity in that region  
12 according to the -- the amount of electricity that  
13 they use.

14 So that's discussed in more nuance in the  
15 application, and you can see exactly what  
16 percentages are allocated to different local  
17 balancing authority areas, different subregions  
18 within that area. I can tell you for Minnesota  
19 Power, in Table 5 in Section 2.4.3.1 of the  
20 application, our share of the cost, the total cost  
21 of this project and the LRTP portfolio, is about  
22 2 percent of the total cost.

23 So if we go on in that same section,  
24 Subsection 2.4.3.2 on rate impacts to Minnesota  
25 Power customers, there is a table of the estimated

1 retail rate impacts. Which is an indicative  
2 estimate of the rate impacts because rates are  
3 determined in a separate and subsequent proceeding.  
4 But the indicative rate impact, based on what we  
5 know about the project as of the time of the  
6 application, for the average residential customer --  
7 residential rate class, this is just for Minnesota  
8 Power, that 2 percent that I was talking about, the  
9 average impact for a residential customer on their  
10 monthly electricity bill is about \$0.81 in the  
11 midrange cost of the project, to \$0.94 in the upper  
12 range.

13 That's, again, average residential  
14 electricity user, monthly impact about \$0.81 from  
15 Minnesota Power's 2 percent share of the cost of the  
16 project. Which, again, is subject to cost  
17 allocation across that whole region of MISO.

18 MS. SAARAH MAXON: And, yeah, Maggie,  
19 I'll give you another second to respond if you want  
20 or to ask follow-up questions.

21 But to Maggie and Linda or anybody who  
22 wants help finding where the application is on the  
23 website or if you can't find it on the website,  
24 please reach out directly to Emily, and we can help  
25 you navigate to the application to the section that

1 Christian was just speaking about. So just let us  
2 know if you need that help.

3 MS. EMILY JOHNSON: And, again, the  
4 application is available at the local libraries to  
5 the project. If you would like information about  
6 where those are located, you can also contact me.

7 The application is very lengthy. It is  
8 about -- gosh, I don't even know, it's got to be  
9 like 1,000 pages. The Applicants would know more.  
10 But so we can always provide physical copies, or if  
11 you're interested in specific sections, I can  
12 always, you know, mail you physical copies of  
13 specific sections as well, so just reach out to me.

14 We also have an accessibility coordinator  
15 with the Public Utilities Commission who can also  
16 work with you on those issues as well. So just  
17 reach out to me. I'm happy to help.

18 MS. SAARAH MAXON: I'm sorry if this is  
19 loud on my end. I live by a train.

20 But, Maggie, I just want to leave it  
21 open. If you do want to ask any follow-up  
22 questions, you still have the ability to unmute  
23 yourself. If not, no worries, and we can go on to  
24 the next person.

25 MS. MAGGIE SCHUPPERT: No, I appreciate

1 that, and no further questions. And I really was  
2 just trying to, sort of, uplift what I thought  
3 others -- you know, I had looked at the application,  
4 and I see that section.

5 But I just -- you know, I think to  
6 Emily's point, I would also like to uplift that,  
7 like, some of this stuff is quite indecipherable  
8 even if you have seen the application. And so just  
9 when folks ask those kind of questions, I think it's  
10 just helpful to -- whether it be in this kind of  
11 forum or going forward, right, to help, sort of,  
12 folks decipher the meaning of some of this stuff.

13 Just given what we're seeing in terms  
14 of -- like, frankly, that there's -- I think even  
15 reflected in this meeting -- quite a bit of distrust  
16 circulating, and I think there's more that we can  
17 all do to address that. So, yeah, thank you.

18 MS. EMILY JOHNSON: Yeah.

19 MS. SAARAH MAXON: Yeah. We appreciate  
20 that, Maggie, and we appreciate you speaking up.  
21 And, of course, like, we're here to answer questions  
22 or help in any way we can.

23 Sorry, Emily. I didn't mean to cut you  
24 off.

25 MS. EMILY JOHNSON: That's okay.

1           Yeah. Maggie, we acknowledge that there  
2           is a lot of local distrust and frustration  
3           surrounding a lot of the issues going on right now.  
4           So, thank you. Thank you for be willing to come on  
5           and speak. And, again, just reiterating, just  
6           contact us. That's what we're here for. It's our  
7           job. We're happy to answer questions or put you in  
8           contact with people who can answer them better than  
9           we can, who know the project better.

10           Okay. Let's see, there's a number -- oh,  
11           okay.

12           MS. SAARAH MAXON: We have a number  
13           starting with 218. So since you dialed in, I think  
14           you have to hit \*6 to unmute yourself.

15           MS. KELLY HOLTE: Can you hear me?

16           MS. SAARAH MAXON: Yes, we can hear you.

17           MS. KELLY HOLTE: This is Kelly Holte,  
18           K-E-L-L-Y, H-O-L-T-E.

19           When you say that \$0.81 to \$0.94 to the  
20           average residential customer, is that per month or  
21           per kilowatt-hour or per what?

22           MR. CHRISTIAN WINTER: Hi --

23           MS. KELLY HOLTE: For the increased rate.

24           MR. CHRISTIAN WINTER: -- Ms. Holte, I  
25           can clarify that. That is per month on the average

1 residential utility bill.

2 MS. KELLY HOLTE: Okay. Thank you.

3 MS. SAARAH MAXON: Thanks for your  
4 question, Kelly.

5 Anybody else have comments or questions?  
6 Feel free to raise your hand or hit \*3 if you dialed  
7 in on the phone.

8 While people are thinking, in case  
9 they're thinking of a potential question or comment,  
10 maybe I'll bring things back to the slide that we  
11 have here, just talking about some of the topics  
12 we're looking for comments on.

13 The first question was, Are there  
14 potential human and environmental impacts, unique  
15 characteristics, or mitigation measures, including  
16 route alternatives, for the proposed project needing  
17 further development in an EA addendum?

18 The second question was, Are there  
19 practical methods to minimize, mitigate, or avoid  
20 potential impacts that the Commission should include  
21 as conditions in a draft permit? And the final  
22 question was, Are there other ways to meet the  
23 stated need for the project instead of the proposed  
24 transmission line; and if so, what alternatives to  
25 the project should be studied?

1           You don't have to comment on these  
2 topics. Obviously, we'll accept comments on  
3 anything, but if you do have anything related to  
4 these topics as well, that would be great, or  
5 questions.

6           MS. EMILY JOHNSON: I will also just note  
7 that the slides will also be available on our  
8 eDockets filing system as part of the record after  
9 this meeting. And everything said in this meeting,  
10 as well as the other meetings we've held this week  
11 that were in person, is transcribed by a court  
12 reporter. And all of those meeting transcriptions  
13 will be available, when the court reporter is done  
14 compiling them, on the eDockets filing system as  
15 well. So, again, if you need help accessing that,  
16 that's what we're here for, too, so reach out. If  
17 you want physical copies mailed to you of the slides  
18 or -- just let us know.

19           I'm not seeing any hands yet or any  
20 comments in the chat.

21           MS. SAARAH MAXON: And just a quick  
22 reminder, in case people have forgotten, if you're  
23 dialing in on the phone, to raise your hand, you  
24 have to hit -- select \*3. If you're on Webex, you  
25 just could hit the hand to raise your hand.

1                   MS. EMILY JOHNSON: I'm still not seeing  
2 any hands raised, but we'll give it another minute.  
3 We have -- we do have plenty of time. So we can  
4 stay until 8:00, but if nobody is going to comment,  
5 then I don't want to just sit here. So if we give  
6 it another couple minutes and nobody raises their  
7 hand, we might just end early. So -- but, of  
8 course, if you'd like to, just put your hand up or  
9 press \*3 if you're on the phone. We would love to  
10 hear from you.

11                   Okay. I'm still not seeing any hands  
12 raised. Again, you can always reach out to us with  
13 any questions. That's what we're here for. If you  
14 want to send me an email with your comments, you  
15 can. If you want to go on our website and comment,  
16 you can do it that way. If you want to send me  
17 physical mail, I will file that to the record as  
18 well.

19                   So I'm still not seeing any hands raised.  
20 I think we can move to the last slide here, and that  
21 will be your last chance. If you want to raise your  
22 hand while I'm talking, we'll get to you right after  
23 that. Otherwise, we'll end the meeting.

24                   But some important reminders: Comments  
25 will be available to the public on our eFiling

1 docket system. The Commission does not edit or  
2 delete personal identifying information from  
3 submissions. So keep that in mind when you submit  
4 your comments.

5 And the written comment period closes on  
6 April 23rd, 2026. And, again, all -- everything  
7 that was said at this meeting is going to be  
8 included in the record through the court reporter's  
9 transcript, and that's available publicly. So if  
10 you want to go back and review any of the meetings,  
11 you may do so when that's posted.

12 So I'm still not seeing any hands, so I  
13 think we will go ahead and end the meeting there.  
14 But thank you so much for attending tonight and  
15 taking the time out of your day to be here. We  
16 really appreciate it, and I encourage you to please  
17 contact us anytime. And thank you, again. Have a  
18 great night.

19 MS. SAARAH MAXON: Thank you, everyone.

20 (Public comment concluded.)  
21  
22  
23  
24  
25

	<b>57:17</b>	<b>albeit (1)</b> 41:7	<b>5:18;7:23;10:8,11,20,24;11:9;13:4;15:12,12;17:20;18:15;23:14,14,18;24:5,6;26:12;30:13;31:13;35:5,6,13,23;36:7,12;37:20;40:17;55:25;56:15,20;57:6,22,25;58:4,7;59:3,8</b>	<b>19;25:23;36:3</b>
<b>§</b>	<b>actually (3)</b> 14:2;40:10,11	<b>allocated (1)</b> 56:16	<b>20,24;11:9;13:4;15:12,12;17:20;18:15;23:14,14,18;24:5,6;26:12;30:13;31:13;35:5,6,13,23;36:7,12;37:20;40:17;55:25;56:15,20;57:6,22,25;58:4,7;59:3,8</b>	<b>associated (4)</b> 3:6;14:24;31:20;53:8
<b>\$0.81 (3)</b> 57:10,14;60:19	<b>add (1)</b> 42:14	<b>allocation (2)</b> 56:3;57:17	<b>31:13;35:5,6,13,23;36:7,12;37:20;40:17;55:25;56:15,20;57:6,22,25;58:4,7;59:3,8</b>	<b>Assuming (1)</b> 17:16
<b>\$0.94 (2)</b> 57:11;60:19	<b>addendum (8)</b> 23:25;25:10,23;26:20,24;36:3,9;61:17	<b>allotted (1)</b> 43:17	<b>22,25;58:4,7;59:3,8</b>	<b>assumptions (1)</b> 31:4
<b>*</b>	<b>addition (1)</b> 21:6	<b>allow (2)</b> 9:16;22:20	<b>applications (2)</b> 23:9;27:6	<b>ATC (7)</b> 6:24,25;7:1,1;9:17;11:10;14:8
<b>*3 (9)</b> 28:21;33:11;44:18;54:1,14,21;61:6;62:24;63:9	<b>additional (1)</b> 47:13	<b>allowed (1)</b> 11:14	<b>applies (1)</b> 22:4	<b>ATC's (1)</b> 16:21
<b>*6 (8)</b> 33:19,24;45:3,8,9;46:8,18;60:14	<b>address (9)</b> 10:2;11:8,22:5;30:2,9;42:19;46:22;55:19;59:17	<b>allows (1)</b> 37:16	<b>apply (1)</b> 22:14	<b>attend (2)</b> 21:12;27:9
	<b>adjacent (2)</b> 15:18;16:4	<b>almost (1)</b> 49:10	<b>appointed (1)</b> 5:3	<b>attending (2)</b> 49:6;64:14
<b>@</b>	<b>advice (1)</b> 50:3	<b>along (7)</b> 17:6,16;26:24,25;37:25;38:18;48:16	<b>appreciate (5)</b> 55:3;58:25;59:19,20;64:16	<b>attention (1)</b> 19:5
<b>@statemnus (2)</b> 41:25;54:7	<b>advocate (1)</b> 18:10	<b>alternative (2)</b> 22:2;24:18	<b>approach (1)</b> 50:18	<b>Attorney (1)</b> 50:4
<b>A</b>	<b>aesthetic (1)</b> 21:23	<b>alternatives (11)</b> 17:25;24:10,12,14;25:1,8,17;26:1;39:16;61:16,24	<b>appropriate (1)</b> 49:25	<b>AUAR (1)</b> 52:22
<b>AA (1)</b> 19:4	<b>aesthetics (1)</b> 18:22	<b>always (6)</b> 28:13;42:21;45:24;58:10,12;63:12	<b>approval (1)</b> 14:21	<b>audio (1)</b> 45:23
<b>ability (2)</b> 36:25;58:22	<b>affect (6)</b> 34:16;39:3,15;47:15;48:17;55:13	<b>American (1)</b> 6:24	<b>approvals (1)</b> 5:9	<b>authority (2)</b> 30:24;56:17
<b>able (10)</b> 4:5;33:8,20,21,25;35:25;37:8;45:11;51:22;56:6	<b>affected (2)</b> 38:19;39:5	<b>amount (2)</b> 11:14;56:12	<b>approved (11)</b> 8:17,22;9:20;13:18;14:7;30:6;31:25;32:13,18;50:4;56:5	<b>available (9)</b> 19:10;21:4;23:14,16;58:4;62:7,13;63:25;64:9
<b>accept (2)</b> 53:10;62:2	<b>affects (2)</b> 37:25;40:2	<b>analysis (1)</b> 36:1	<b>approximately (1)</b> 7:10	<b>avenues (1)</b> 53:11
<b>accepted (1)</b> 26:12	<b>again (19)</b> 15:4;19:18,25;28:13;30:10;35:3;36:10;47:18;53:20;54:6;55:1;57:13,16;58:3;60:5;62:15;63:12;64:6,17	<b>analyst (1)</b> 3:13	<b>April (3)</b> 26:17;27:22;64:6	<b>average (6)</b> 50:7;57:6,9,13;60:20,25
<b>access (3)</b> 35:9;42:21;43:25	<b>against (3)</b> 4:10;18:11;50:3	<b>analyze (1)</b> 36:4	<b>archeological (2)</b> 19:11,15	<b>avoid (4)</b> 18:4;24:12;25:12;61:19
<b>accessibility (1)</b> 58:14	<b>agencies (3)</b> 17:3;19:14;20:21	<b>angry (1)</b> 52:10	<b>area (5)</b> 14:3,11;32:4,16;56:18	<b>aware (1)</b> 52:21
<b>accessing (1)</b> 62:15	<b>Agency (1)</b> 19:22	<b>animals (1)</b> 35:21	<b>areas (2)</b> 17:7;56:17	<b>away (1)</b> 20:25
<b>accommodate (1)</b> 16:14	<b>agenda (1)</b> 3:12	<b>answered (1)</b> 55:18	<b>arguably (1)</b> 50:5	<b>B</b>
<b>according (1)</b> 56:12	<b>agree (1)</b> 28:6	<b>anticipated (1)</b> 20:25	<b>Army (1)</b> 19:19	<b>back (23)</b> 3:19;5:23;11:21;13:23;15:6;27:18;29:11,20;30:7;36:8,10;37:20,23;39:23;41:14;42:11;44:17;45:17,52;13,15;54:4;61:10;64:10
<b>achieve (1)</b> 12:22	<b>agreement (3)</b> 14:24;44:4;53:1	<b>anticipated (2)</b> 30:15;31:11	<b>around (7)</b> 9:13;12:20;13:25;14:1,6;29:21;51:13	<b>background (3)</b> 7:21;8:1;13:3
<b>achieving (1)</b> 12:24	<b>agreements (2)</b> 44:1;50:18	<b>antidemocratic (1)</b> 51:2	<b>Arrowhead (20)</b> 3:4;7:8,13;9:19;10:25;11:10,17,19;16:21;33:1;43:9;47:12,14,21,21;48:2,6,11,23;55:11	<b>balancing (1)</b> 56:17
<b>acknowledge (3)</b> 13:11;51:24;60:1	<b>agricultural (2)</b> 19:7;20:4	<b>antithesis (1)</b> 50:19	<b>aside (1)</b> 32:11	<b>based (5)</b> 14:20;23:5;25:19;26:18;57:4
<b>acknowledged (1)</b> 32:6	<b>Agriculture (1)</b> 19:9	<b>apologize (2)</b> 40:10;46:21	<b>assess (1)</b> 24:11	<b>basically (1)</b> 38:12
<b>acquisition (1)</b> 17:15	<b>ahead (7)</b> 27:25;28:23;37:6;45:1;46:15;47:7;64:13	<b>appendix (2)</b> 18:14;23:13	<b>assessment (12)</b> 5:17;15:8;17:21,23;18:3,10,13;23:10,13,	
<b>acreage (2)</b> 38:11,14		<b>Applicant (3)</b> 4:16;5:25;22:20		
<b>acres (4)</b> 38:8,9,15,16		<b>Applicants (8)</b> 3:16,18;5:16;10:19;17:20;30:21;39:12;58:9		
<b>across (4)</b> 9:12;12:24;56:7;		<b>application (38)</b>		

<p><b>batter (1)</b> 51:22 <b>bear (1)</b> 33:23 <b>bearing (1)</b> 49:8 <b>become (1)</b> 10:13 <b>beefed (1)</b> 47:15 <b>begin (1)</b> 17:17 <b>beginning (2)</b> 15:10;18:22 <b>begins (2)</b> 15:25;16:6 <b>behave (1)</b> 52:3 <b>behemoth (1)</b> 50:23 <b>belief (1)</b> 50:7 <b>benefit (1)</b> 38:20 <b>benefits (7)</b> 10:6,10;12:23; 32:21,23;38:22;56:6 <b>besides (1)</b> 50:23 <b>best (3)</b> 30:23,23;53:11 <b>better (2)</b> 60:8,9 <b>beyond (1)</b> 39:5 <b>bill (2)</b> 57:10;61:1 <b>bills (2)</b> 34:8,9 <b>bit (5)</b> 4:2;10:3;22:25; 51:17;59:15 <b>BlackRock (1)</b> 52:6 <b>blue (2)</b> 8:19;26:8 <b>Board (1)</b> 8:22 <b>boards (1)</b> 40:15 <b>Both (8)</b> 5:10;18:5,16;19:12; 20:2,20;27:5;42:5 <b>bottom (1)</b> 54:16 <b>box (1)</b> 8:19 <b>break (1)</b> 52:1 <b>brief (2)</b> 3:14;4:23 <b>bring (2)</b> 10:21;61:10</p>	<p><b>brings (1)</b> 13:10 <b>broken (1)</b> 15:22 <b>build (2)</b> 21:14;43:14 <b>built (4)</b> 7:11;8:7;9:1;13:21 <b>bullet (1)</b> 53:4 <b>burner (1)</b> 52:13 <b>button (2)</b> 28:17,20</p> <p style="text-align: center;"><b>C</b></p> <p><b>call (7)</b> 8:11;28:2;31:11; 39:21;43:5;44:19; 54:8 <b>called (2)</b> 11:10,19 <b>caller (1)</b> 38:21 <b>calm (1)</b> 52:7 <b>came (1)</b> 37:11 <b>can (100)</b> 4:12,13,14,15;5:19; 6:9;9:12;10:5;18:17, 19;21:1,5,17,22,25; 22:7;26:9;27:11,14, 16,17,18,20,25;28:5, 6,7,13,16,21,25;29:1, 11,17;30:9;31:9; 33:12,12;34:1,2,19; 35:12,23;36:1,10,23; 38:11;39:7,12;40:3,8; 41:9,11,13;42:15,18, 21,24;43:5,9;45:8,11, 13,16,17,24;46:12,20, 22,24;47:2,4,19;48:5; 49:18,19;51:23; 54:10,25;55:21; 56:15,18;57:24;58:6, 10,11,15,23;59:16,22; 60:8,9,15,16,25;63:3, 12,15,16,20 <b>capability (2)</b> 6:14;11:2 <b>capable (2)</b> 7:12;16:17 <b>capacity (1)</b> 47:24 <b>case (4)</b> 32:14;51:16;61:8; 62:22 <b>center (16)</b> 13:13;14:16,18,25; 15:3;31:24;32:1,4,8; 50:16,17;52:5,18,23;</p>	<p>53:12,15 <b>certainly (4)</b> 31:22;35:12;36:1,4 <b>certificate (8)</b> 5:10,11,12;10:8; 24:5,6;26:2;27:6 <b>chance (2)</b> 26:10;63:21 <b>change (3)</b> 8:15;16:25;20:10 <b>changed (3)</b> 9:2;12:4;30:6 <b>character (1)</b> 51:14 <b>characteristics (4)</b> 22:9;23:21;25:7; 61:15 <b>characterize (1)</b> 8:24 <b>chat (3)</b> 28:17;44:21;62:20 <b>check (1)</b> 46:9 <b>Christian (25)</b> 6:6;7:16,17,19; 15:9;30:8,9;31:9; 34:19,23;35:2,2,10; 40:8;47:17,18;48:5, 11,19,22;55:20,21; 58:1;60:22,24 <b>circle (4)</b> 36:10;39:23;42:11; 45:17 <b>circulating (1)</b> 59:16 <b>cited (1)</b> 31:7 <b>citizen (1)</b> 50:8 <b>city (1)</b> 52:21 <b>civil (3)</b> 52:7,7,10 <b>civilization (1)</b> 50:12 <b>civilly (1)</b> 52:3 <b>clarify (3)</b> 13:16;48:6;60:25 <b>class (1)</b> 57:7 <b>clean (2)</b> 9:6;10:17 <b>clear (4)</b> 13:2,6;14:17;52:19 <b>clearing (1)</b> 21:24 <b>clearly (1)</b> 28:4 <b>click (1)</b> 28:16 <b>close (1)</b> 23:15</p>	<p><b>closes (2)</b> 27:2;64:5 <b>CN-25-111 (1)</b> 3:7 <b>coal-fired (2)</b> 11:24;12:11 <b>Co-applicant (1)</b> 6:24 <b>colleague (2)</b> 3:19;5:23 <b>co-locate (1)</b> 15:17 <b>co-locates (1)</b> 15:14 <b>combined (3)</b> 15:12;18:14;24:5 <b>coming (4)</b> 21:12;31:1;32:4; 49:24 <b>comment (44)</b> 21:5,6;22:15,23; 25:4,21;26:10,16; 27:1,2,11,13,14,16, 22;28:16,22;31:17, 19;37:5,16;39:25; 42:8;44:15,20;45:11, 24;46:3;52:22,23; 53:5,7,8,12,24;54:13, 18,20;61:9;62:1;63:4, 15;64:5,20 <b>comment/recommendation (1)</b> 29:20 <b>commenter (1)</b> 33:8 <b>commenting (1)</b> 40:2 <b>comments (24)</b> 3:22;4:7,17,21; 7:24;13:12;26:9; 27:12,23;28:1,11,24; 33:16;39:8;45:19; 51:10;53:10;61:5,12; 62:2,20;63:14,24, 64:4 <b>Commission (32)</b> 3:14,20;4:17,25; 5:9,14;14:12;15:1; 21:11,19;22:4;23:7, 25;25:13,21,25;26:12, 19;27:4,15,21;34:11; 42:3,16;43:6;44:7; 50:2;53:3,17;58:15; 61:20;64:1 <b>Commissioners (2)</b> 4:20;5:3 <b>Commission's (4)</b> 4:12;5:20;22:22; 23:16 <b>community (5)</b> 4:22;32:20,23;51:1; 53:15 <b>company (6)</b> 6:5,9,16,24;32:22;</p>	<p>51:15 <b>compile (1)</b> 4:11 <b>compiling (1)</b> 62:14 <b>complete (3)</b> 21:14;26:13;27:13 <b>compliance (2)</b> 6:3;22:6 <b>computer (1)</b> 35:9 <b>comrades (2)</b> 52:9,10 <b>concept (3)</b> 13:24;14:5;30:20 <b>conceptual (1)</b> 31:4 <b>concern (1)</b> 37:23 <b>concerned (3)</b> 31:24;38:24;39:14 <b>concerns (1)</b> 11:22 <b>concluded (1)</b> 64:20 <b>concludes (2)</b> 5:21;22:15 <b>conditions (11)</b> 4:19;10:13;18:9; 20:2;22:5,14,18; 25:13,24;33:6;61:21 <b>configuration (1)</b> 40:9 <b>configurations (2)</b> 24:18;38:3 <b>confirmed (1)</b> 5:4 <b>connect (1)</b> 21:1 <b>connecting (1)</b> 47:12 <b>connection (1)</b> 12:1 <b>connects (2)</b> 47:20,22 <b>consider (2)</b> 21:19;27:4 <b>consideration (1)</b> 34:15 <b>considered (1)</b> 17:25 <b>consumers (1)</b> 34:11 <b>construct (1)</b> 22:20 <b>construction (3)</b> 17:17;21:23;22:1 <b>consulting (1)</b> 17:3 <b>consume (1)</b> 38:12 <b>consuming (1)</b> 38:8</p>
---	---	---	--	---

<p><b>contact (7)</b> 41:11;46:25;54:5; 58:6;60:6,8;64:17</p> <p><b>contain (1)</b> 22:17</p> <p><b>contained (1)</b> 36:7</p> <p><b>contains (1)</b> 23:10</p> <p><b>continue (5)</b> 5:25;17:15;20:13, 18;31:16</p> <p><b>continues (1)</b> 8:15</p> <p><b>Continuing (1)</b> 19:11</p> <p><b>Control (3)</b> 19:22;51:23,25</p> <p><b>conversation (2)</b> 15:3;41:12</p> <p><b>coordinate (3)</b> 19:13,15;35:15</p> <p><b>coordinating (1)</b> 19:19</p> <p><b>coordination (2)</b> 19:8;20:11</p> <p><b>coordinator (1)</b> 58:14</p> <p><b>copies (3)</b> 58:10,12;62:17</p> <p><b>copy (2)</b> 5:19;35:12</p> <p><b>Corps (1)</b> 19:20</p> <p><b>correctly (1)</b> 55:9</p> <p><b>cost (22)</b> 29:24;30:3,4,11,13, 15,17,18;31:11,12,20; 34:15;35:5;48:16,23; 56:2,20,20,22;57:11, 15,16</p> <p><b>costs (5)</b> 31:3;48:4;56:1,7,10</p> <p><b>County (8)</b> 3:4;7:8,13;9:19; 10:25;16:9,20;20:20</p> <p><b>couple (11)</b> 7:22;8:14;10:4; 13:15;17:5,13;19:3; 20:15;30:1;54:11; 63:6</p> <p><b>course (5)</b> 40:16;41:9;52:20; 59:21;63:8</p> <p><b>court (7)</b> 4:6;28:3,5;45:20; 62:11,13;64:8</p> <p><b>covered (3)</b> 29:25;35:5,23</p> <p><b>covers (1)</b> 6:11</p> <p><b>credible (1)</b></p>	<p>50:3</p> <p><b>crosses (1)</b> 48:8</p> <p><b>current (1)</b> 30:11</p> <p><b>Currently (3)</b> 6:13;26:11,15</p> <p><b>customer (5)</b> 10:3;14:15;57:6,9; 60:20</p> <p><b>customers (11)</b> 6:19,20;12:7,12; 32:17;47:16;48:1,6, 10,17;56:25</p> <p><b>cut (1)</b> 59:23</p> <hr/> <p style="text-align: center;"><b>D</b></p> <hr/> <p><b>Dakota (1)</b> 11:24</p> <p><b>data (16)</b> 13:13;14:16,18,25; 15:3;31:24;32:1,4,8; 50:15,16;52:4,18,23; 53:12,15</p> <p><b>day (2)</b> 40:11;64:15</p> <p><b>daylight (1)</b> 22:2</p> <p><b>decade (1)</b> 13:25</p> <p><b>decades (1)</b> 8:14</p> <p><b>December (1)</b> 14:21</p> <p><b>decide (2)</b> 5:5;26:19</p> <p><b>decides (1)</b> 21:19</p> <p><b>decipher (1)</b> 59:12</p> <p><b>decision (8)</b> 4:12,18;23:7;27:5, 8;30:25;34:12,14</p> <p><b>decision-making (2)</b> 21:15;22:22</p> <p><b>decisions (1)</b> 50:8</p> <p><b>deck (1)</b> 40:12</p> <p><b>defaulting (1)</b> 37:20</p> <p><b>defined (1)</b> 51:14</p> <p><b>definitely (1)</b> 41:22</p> <p><b>defy (1)</b> 50:24</p> <p><b>delete (1)</b> 64:2</p> <p><b>deliver (4)</b> 6:18;9:14,20;14:9</p>	<p><b>demand (1)</b> 10:17</p> <p><b>democracy (3)</b> 50:19;51:3,12</p> <p><b>demonstrate (1)</b> 56:6</p> <p><b>demonstrated (1)</b> 50:25</p> <p><b>demonstrating (1)</b> 10:24</p> <p><b>Department (2)</b> 19:9,21</p> <p><b>depth (1)</b> 5:24</p> <p><b>describe (1)</b> 24:9</p> <p><b>describes (1)</b> 17:24</p> <p><b>description (1)</b> 3:16</p> <p><b>desk (1)</b> 43:6</p> <p><b>determinations (1)</b> 25:22</p> <p><b>determine (2)</b> 23:25;26:20</p> <p><b>determined (1)</b> 57:3</p> <p><b>develop (6)</b> 9:11;17:7;20:4; 22:16;23:5;33:5</p> <p><b>developed (6)</b> 8:3;9:25;13:18; 15:11;19:6,8</p> <p><b>developing (2)</b> 10:20;20:16</p> <p><b>development (3)</b> 25:9;30:19;61:17</p> <p><b>dialed (2)</b> 60:13;61:6</p> <p><b>dialing (4)</b> 41:21;44:18;54:1; 62:23</p> <p><b>difference (1)</b> 28:8</p> <p><b>different (9)</b> 4:2;9:7;12:14,15; 24:16,17,19;56:16,17</p> <p><b>difficulties (1)</b> 37:10</p> <p><b>direct (1)</b> 48:13</p> <p><b>directions (1)</b> 11:2</p> <p><b>directly (9)</b> 21:2,5;27:17;32:24; 37:24;42:25;44:21; 55:19;57:24</p> <p><b>disagree (1)</b> 28:7</p> <p><b>discuss (2)</b> 5:23;21:16</p> <p><b>discussed (6)</b></p>	<p>10:8,11;13:2;15:5; 56:2,14</p> <p><b>discusses (1)</b> 19:25</p> <p><b>discussing (1)</b> 14:19</p> <p><b>discussion (2)</b> 10:23;56:2</p> <p><b>dismayed (1)</b> 50:2</p> <p><b>disparity (1)</b> 50:6</p> <p><b>distracted (1)</b> 33:15</p> <p><b>distribution (5)</b> 6:15;7:3;48:14,18, 20</p> <p><b>distrust (2)</b> 59:15;60:2</p> <p><b>docket (7)</b> 3:5;13:12;14:23; 15:1;53:3,6;64:1</p> <p><b>done (3)</b> 14:20;52:6;62:13</p> <p><b>dot (2)</b> 41:24;54:6</p> <p><b>double (1)</b> 46:9</p> <p><b>double-circuit (3)</b> 7:11;16:17,22</p> <p><b>down (9)</b> 4:5;15:22;33:10,14; 37:4;41:15;51:22; 52:1;54:16</p> <p><b>draft (9)</b> 22:17,19,23;23:5; 25:14,25;26:19,22; 61:21</p> <p><b>draw (1)</b> 19:5</p> <p><b>DREW (6)</b> 6:1,2;7:18;12:5; 15:7,9</p> <p><b>drive (1)</b> 37:21</p> <p><b>due (1)</b> 30:18</p> <p><b>Duluth (2)</b> 14:12;49:17</p> <p><b>during (3)</b> 13:16;25:21;41:23</p> <hr/> <p style="text-align: center;"><b>E</b></p> <hr/> <p><b>EA (13)</b> 18:3,8,15,21;19:4, 25;20:22;23:22,25; 25:10;26:20,24;61:17</p> <p><b>earlier (2)</b> 14:8;56:9</p> <p><b>early (6)</b> 11:21;12:4,10,16; 19:15;63:7</p>	<p><b>easement (1)</b> 39:6</p> <p><b>easily (1)</b> 50:24</p> <p><b>economies (2)</b> 19:3,5</p> <p><b>edit (1)</b> 64:1</p> <p><b>eDockets (3)</b> 23:17;62:8,14</p> <p><b>effect (1)</b> 48:20</p> <p><b>effectively (1)</b> 41:6</p> <p><b>efficiency (1)</b> 10:15</p> <p><b>efforts (2)</b> 8:7;18:7</p> <p><b>eFiling (1)</b> 63:25</p> <p><b>eight- (1)</b> 56:8</p> <p><b>either (6)</b> 15:18;21:2;32:14, 21;39:8;48:24</p> <p><b>electric (5)</b> 4:25;8:13;14:24; 34:8;53:1</p> <p><b>electrical (1)</b> 5:2</p> <p><b>electricity (9)</b> 8:15;9:3,3;50:11, 13;56:11,12;57:10,14</p> <p><b>electrification (1)</b> 9:7</p> <p><b>else (11)</b> 33:7;36:15,18; 43:18;44:15;49:3,9; 51:7;53:23;55:16; 61:5</p> <p><b>email (13)</b> 21:2;27:17,18; 39:21;41:15,17,24; 42:5;43:21;46:22; 54:6,8;63:14</p> <p><b>Emily (55)</b> 3:20;5:23;21:8,9; 29:3;31:15;33:3,13; 34:10,19,21;35:1,11, 18,22;36:14,17,24; 37:1;39:10;41:13,19, 22,24;42:14,22,23; 43:2,7,13,23;44:5,12; 45:18;46:13;47:10; 49:2,5,9,13,18,22; 51:6,8;52:14;54:2,6, 25;57:24;58:3;59:18, 23,25;62:6;63:1</p> <p><b>E-M-I-L-Y (2)</b> 41:24;54:6</p> <p>EmilyJohnson1@statemnus (1) 42:1</p> <p><b>Emily's (2)</b></p>
--	--	---	--	---

<p>46:22;59:6  <b>emphasis (1)</b>                  32:19  <b>employs (1)</b>                  51:2  <b>encourage (7)</b>                  34:13;39:20;42:6;                  43:10;52:23;53:5;                  64:16  <b>end (14)</b>                  3:22;7:4;27:19;                  28:14;31:12;45:7,10,                  16,16;54:24;58:19;                  63:7,23;64:13  <b>endpoint (2)</b>                  13:14;16:8  <b>endpoints (2)</b>                  9:18;11:11  <b>ends (1)</b>                  27:22  <b>energy (14)</b>                  6:17,19;9:6,14;                  10:15,17;12:8,11,15,                  19,20;13:1;24:19;                  32:13  <b>enforce (1)</b>                  28:12  <b>engaged (2)</b>                  32:21,22  <b>engagement (5)</b>                  17:1,16;20:11,18,                  24  <b>engineering (3)</b>                  11:13;17:14;31:3  <b>Engineers (1)</b>                  19:20  <b>Enhancing (2)</b>                  10:12;11:4  <b>ensure (1)</b>                  28:10  <b>entire (1)</b>                  27:4  <b>entrusted (1)</b>                  30:22  <b>environmental (35)</b>                  3:21;5:12,14,17;                  6:3;15:8;17:14,21,23;                  18:1,3,6,10,13,17;                  21:10,20;23:10,11,13,                  19,20;24:8,8;25:2,6,                  23;26:3,21,23;35:21;                  36:3;39:2;44:1;61:14  <b>equal (1)</b>                  51:1  <b>especially (2)</b>                  35:13;39:19  <b>essential (1)</b>                  50:9  <b>essentially (1)</b>                  6:25  <b>established (1)</b>                  11:18  <b>estimate (5)</b></p>	<p>30:11,15,18;35:6;                  57:2  <b>estimated (2)</b>                  30:13;56:25  <b>estimates (2)</b>                  30:5,5  <b>evaluate (1)</b>                  18:13  <b>evaluated (3)</b>                  18:21;19:4;23:23  <b>evaluates (1)</b>                  18:16  <b>even (6)</b>                  13:23;32:2,6;58:8;                  59:8,14  <b>evening (2)</b>                  6:2;21:8  <b>eventual (2)</b>                  17:8;18:9  <b>everybody (5)</b>                  3:1,12;4:1;21:9;                  55:24  <b>everybody's (1)</b>                  4:7  <b>everyone (5)</b>                  28:9,10;29:1;54:22;                  64:19  <b>evolve (1)</b>                  8:15  <b>exactly (1)</b>                  56:15  <b>example (1)</b>                  12:5  <b>examples (2)</b>                  24:15,17  <b>existing (12)</b>                  15:14,18,20;16:4,                  11,13,16;18:25;                  40:23;41:3,8;47:24  <b>expand (1)</b>                  16:12  <b>expanding (1)</b>                  15:20  <b>expect (1)</b>                  26:22  <b>expected (1)</b>                  26:25  <b>explain (1)</b>                  31:8  <b>export (1)</b>                  32:13  <b>expressed (1)</b>                  11:23</p>	<p>19:13  <b>fall (3)</b>                  26:23,25;27:7  <b>far (3)</b>                  32:23;36:2;38:24  <b>fashion (1)</b>                  52:7  <b>fathers (1)</b>                  51:20  <b>federal (4)</b>                  17:3;19:14,19;                  20:21  <b>feedback (1)</b>                  17:7  <b>feel (12)</b>                  29:17;33:11;36:22;                  37:5;43:19;44:15,20,                  25;53:24;54:8,20;                  61:6  <b>feels (1)</b>                  4:22  <b>feet (1)</b>                  16:13  <b>few (9)</b>                  6:4;7:15;13:13;                  18:20,20;19:14;                  20:13;28:12;34:5  <b>field (1)</b>                  52:12  <b>figure (3)</b>                  6:10;29:14;30:22  <b>file (1)</b>                  63:17  <b>filed (4)</b>                  15:1;19:10;27:3;                  53:2  <b>filing (3)</b>                  23:17;62:8,14  <b>final (3)</b>                  23:6;30:25;61:21  <b>Finally (1)</b>                  3:22  <b>financially (2)</b>                  47:16;48:3  <b>find (7)</b>                  5:19;27:16;35:25;                  42:5,15;43:10;57:23  <b>finding (1)</b>                  57:22  <b>first (11)</b>                  3:6;6:18;8:16;12:6;                  21:11;25:6,23;28:3;                  36:6;37:15;61:13  <b>five (5)</b>                  5:3;28:11;38:9,17;                  43:17  <b>flag (1)</b>                  4:5  <b>flexible (2)</b>                  10:14;11:1  <b>Floodwood (2)</b>                  16:3,8  <b>flow (2)</b></p>	<p>11:14,16  <b>flowing (1)</b>                  11:24  <b>flows (1)</b>                  47:25  <b>focused (1)</b>                  38:25  <b>folks (8)</b>                  29:10;31:23;32:24;                  41:20;54:18;55:14;                  59:9,12  <b>follow (5)</b>                  26:25;31:6;34:13;                  39:7;43:21  <b>follow-up (2)</b>                  57:20;58:21  <b>forgotten (1)</b>                  62:22  <b>formal (1)</b>                  21:6  <b>format (1)</b>                  4:3  <b>forms (1)</b>                  12:20  <b>forum (2)</b>                  51:5;59:11  <b>forward (4)</b>                  9:23;14:7;32:10;                  59:11  <b>fragmentation (1)</b>                  21:25  <b>frankly (1)</b>                  59:14  <b>free (12)</b>                  29:17;33:11;36:22;                  37:5;43:19;44:16,20,                  25;53:24;54:8,20;                  61:6  <b>French (1)</b>                  51:19  <b>front (5)</b>                  17:10;19:15;20:24;                  43:6;56:9  <b>frustrating (1)</b>                  40:3  <b>frustration (2)</b>                  53:14;60:2  <b>fully (1)</b>                  44:2  <b>function (1)</b>                  54:1  <b>fund (1)</b>                  50:6  <b>further (7)</b>                  18:12;23:24;25:9;                  36:4;51:15;59:1;                  61:17  <b>future (3)</b>                  9:5;13:22;55:10</p>	<p>5:1  <b>gates (2)</b>                  51:22,25  <b>gather (1)</b>                  25:21  <b>gathered (1)</b>                  22:16  <b>gathering (1)</b>                  36:6  <b>General (1)</b>                  50:4  <b>generally (1)</b>                  55:14  <b>generate (1)</b>                  8:14  <b>generated (1)</b>                  9:3  <b>generation (3)</b>                  6:14;7:3;11:24  <b>generator (1)</b>                  10:3  <b>given (7)</b>                  30:12,20;32:3;35:6;                  51:17;55:6;59:13  <b>giving (1)</b>                  10:14  <b>glad (1)</b>                  46:14  <b>goal (1)</b>                  6:17  <b>goes (4)</b>                  17:16;19:25;42:2;                  46:3  <b>Good (8)</b>                  6:2,11;21:8;29:2;                  35:1;37:12;41:17;                  43:23  <b>goodness (1)</b>                  47:6  <b>Google (2)</b>                  50:22,24  <b>gosh (1)</b>                  58:8  <b>government (1)</b>                  20:19  <b>Governor (1)</b>                  5:4  <b>gray (1)</b>                  8:18  <b>great (6)</b>                  20:14;29:3;34:22;                  55:19;62:4;64:18  <b>greatly (1)</b>                  38:23  <b>grid (13)</b>                  8:4,13,25;9:5,9;                  10:12,13,15;11:5;                  12:15,25;14:14;38:22  <b>ground (1)</b>                  3:25  <b>group (2)</b>                  8:21;20:7  <b>growing (1)</b></p>
	<b>F</b>		<b>G</b>	
	<p><b>facilitate (2)</b>                  9:12;13:1  <b>facilities (2)</b>                  5:2;24:20  <b>fact (1)</b>                  12:17  <b>fairly (1)</b></p>	<p><b>flag (1)</b>                  4:5  <b>flexible (2)</b>                  10:14;11:1  <b>Floodwood (2)</b>                  16:3,8  <b>flow (2)</b></p>	<p><b>gas (1)</b></p>	

10:17 <b>guess (9)</b> 29:20;31:19;37:15; 39:1,22;43:20;44:2; 55:6,18	3:9;14:2;62:10 <b>Hello (1)</b> 47:2 <b>help (16)</b> 4:17;21:18;22:7; 23:25;36:11;37:21; 40:17;43:1;54:10; 57:22,24;58:2,17; 59:11,22;62:15 <b>helpful (2)</b> 44:8;59:10 <b>Henry (1)</b> 51:18 <b>Hermantown (7)</b> 13:14;14:18,25; 16:10;32:25;50:15; 52:21 <b>H-frame (1)</b> 41:1 <b>Hi (2)</b> 29:18;60:22 <b>high (2)</b> 30:14;31:12 <b>higher (2)</b> 30:17;31:3 <b>high-level (2)</b> 6:8;7:5 <b>highlight (1)</b> 7:23 <b>highlighted (3)</b> 15:24;26:8;28:19 <b>high-powered (1)</b> 39:3 <b>high-voltage (3)</b> 15:15,18,20 <b>highway (1)</b> 9:8 <b>Historic (1)</b> 19:16 <b>hit (12)</b> 33:11;45:3,8,9; 46:18;53:25;54:1,21; 60:14;61:6;62:24,25 <b>hitting (2)</b> 33:24;46:8 <b>hold (2)</b> 17:5;20:15 <b>holding (1)</b> 26:15 <b>HOLTE (15)</b> 34:1,4,5,17;35:8,17, 19;36:13,16;60:15,17, 17,23,24;61:2 <b>H-O-L-T-E (2)</b> 34:5;60:18 <b>home (1)</b> 42:18 <b>hope (2)</b> 46:22;49:25 <b>hopefully (2)</b> 45:11;46:19 <b>hotline (1)</b> 21:3	<b>hour (1)</b> 49:10 <b>hours (1)</b> 22:2 <b>house (3)</b> 14:2;40:14,16 <b>houses (2)</b> 17:6;20:15 <b>how-to-comment (1)</b> 41:14 <b>human (8)</b> 18:1,5,16;21:20; 23:11,20;25:6;61:14 <b>humans (1)</b> 35:21 <b>hurt (1)</b> 52:10 <b>HVDC (1)</b> 14:13	<b>increase (3)</b> 11:23;12:19;48:23 <b>increased (3)</b> 11:1;48:3;60:23 <b>increases (1)</b> 48:16 <b>increasing (1)</b> 10:15 <b>indecipherable (1)</b> 59:7 <b>Independent (1)</b> 8:5 <b>indicate (2)</b> 28:15,18 <b>indicative (2)</b> 57:1,4 <b>individual (2)</b> 10:2;14:15 <b>individuals (1)</b> 5:5 <b>industrial (1)</b> 6:21 <b>inform (2)</b> 4:19;21:18 <b>information (14)</b> 3:3,8;20:14;23:10; 25:20;26:16;36:8,11; 41:9;44:6;54:5;55:24; 58:5;64:2 <b>informed (1)</b> 4:18 <b>infrastructure (2)</b> 21:24;32:5 <b>initial (1)</b> 28:11 <b>initially (1)</b> 33:10 <b>in-person (1)</b> 3:9 <b>input (18)</b> 4:11;21:13,18;22:7, 16,16;23:6,19,24; 24:23;25:20;26:18; 33:4;36:6;40:1;42:9, 18;53:19 <b>instead (5)</b> 24:24;25:15;37:19; 51:1;61:23 <b>integration (1)</b> 13:22 <b>intended (1)</b> 10:2 <b>interactive (1)</b> 42:18 <b>interagency (1)</b> 20:6 <b>interested (3)</b> 20:19;50:25;58:11 <b>interject (1)</b> 42:14 <b>interpreting (1)</b> 55:8 <b>interstate (1)</b>	9:8 <b>into (9)</b> 4:9;11:3,16,25; 15:22;17:12;38:23; 45:21;46:3 <b>introduction (1)</b> 3:15 <b>involve (1)</b> 5:12 <b>Iron (7)</b> 3:4;7:8,12;9:18; 10:24;15:25;43:8 <b>ISA (10)</b> 7:9;8:19;13:17,24; 14:19;15:4,13;16:4, 14;18:24 <b>issue (8)</b> 5:1,6;26:19;45:15, 16,24;47:1;53:12 <b>issued (1)</b> 26:23 <b>issues (3)</b> 49:8;58:16;60:3 <b>item (1)</b> 19:6 <b>items (1)</b> 7:23
<b>H</b>		<b>I</b>	<b>J</b>	
<b>habitat (1)</b> 21:24 <b>half (1)</b> 16:19 <b>hand (27)</b> 4:5;5:24;6:6;15:6; 29:5;33:7,10,18; 36:21;37:4;44:16,20; 45:2,6;46:7,51,2; 53:25;54:3,15,21; 61:6;62:23,25,25; 63:7,8,22 <b>handled (1)</b> 53:16 <b>hands (6)</b> 36:18;62:19;63:2, 11,19;64:12 <b>hang (1)</b> 16:15 <b>HANSON (12)</b> 46:12;47:2,5,8,9, 11;48:1,9,15,21,25; 49:4 <b>H-A-N-S-O-N (1)</b> 47:9 <b>happen (1)</b> 24:21 <b>happens (1)</b> 25:19 <b>happy (5)</b> 35:15;39:23;54:10; 58:17;60:7 <b>headed (1)</b> 9:6 <b>headquartered (1)</b> 6:25 <b>hear (17)</b> 4:20;28:5,8;34:1,2; 45:8,11,15;46:12,20, 21;47:2,4;54:22; 60:15,16;63:10 <b>heard (3)</b> 28:10;31:23;46:22 <b>hearing (4)</b> 27:2,2;31:23;32:14 <b>hearings (2)</b> 22:24;26:25 <b>heavily (1)</b> 19:13 <b>heavy (5)</b> 16:25;17:2,10; 20:10,24 <b>hedge (1)</b> 50:6 <b>held (3)</b>		<b>idea (1)</b> 41:17 <b>identified (3)</b> 10:10;18:7;47:25 <b>identifies (1)</b> 18:4 <b>identify (1)</b> 24:12 <b>identifying (1)</b> 64:2 <b>Imagine (1)</b> 50:13 <b>impact (9)</b> 19:7;20:4;35:6,21; 37:24;50:8;57:4,9,14 <b>impacted (2)</b> 32:24;48:3 <b>impacts (26)</b> 18:1,5,24;20:1; 21:20,21,22,23;22:5, 9,10;23:11,12,20; 24:11,13;25:7,12; 39:2,17,18;56:24; 57:1,2;61:14,20 <b>Imperative (1)</b> 8:12 <b>important (4)</b> 22:19;51:4;53:20; 63:24 <b>include (9)</b> 21:22;22:1;23:9; 24:14,16,17;25:13,25; 61:20 <b>included (5)</b> 5:18;18:14;23:13; 26:2;64:8 <b>includes (1)</b> 22:13 <b>including (6)</b> 6:21;25:8,20;41:10; 50:3;61:15	<b>JANKE (3)</b> 6:1,2;15:9 <b>January (1)</b> 26:13 <b>JIM (9)</b> 49:14,16,17,20,23; 51:6,7,11;52:15 <b>J-I-M (1)</b> 49:20 <b>job (1)</b> 60:7 <b>Johnson (48)</b> 3:20;21:8,9;29:3; 31:15;33:3,13;34:10, 21;35:1,11,18,22; 36:14,17;37:1;39:10; 41:13,19,22,24;42:23; 43:2,7,13,23;44:5,12; 45:18;46:13;47:10; 49:2,5,9,13,18,22; 51:6,8;52:14;54:2,7, 25;58:3;59:18,25; 62:6;63:1 <b>J-O-H-N-S-O-N (2)</b> 41:25;54:7 <b>joining (2)</b> 3:2;44:18 <b>July (1)</b> 26:18 <b>jump (2)</b> 39:11;45:18 <b>June (1)</b> 26:17	

<p><b>justification (3)</b> 13:8,9;14:21</p> <p><b>justified (1)</b> 14:14</p>	<p>4:4;22:24;24:21</p> <p><b>laterally (1)</b> 39:4</p> <p><b>launch (1)</b> 20:11</p> <p><b>law (1)</b> 23:9</p> <p><b>laying (1)</b> 51:19</p> <p><b>lead (1)</b> 43:8</p> <p><b>leading (1)</b> 4:9</p> <p><b>lean (1)</b> 9:16</p> <p><b>learn (1)</b> 4:13</p> <p><b>least (4)</b> 31:25;32:1;40:9; 41:15</p> <p><b>leave (3)</b> 21:5;28:25;58:20</p> <p><b>left (4)</b> 31:16;39:4;49:10; 52:11</p> <p><b>length (2)</b> 15:16;31:2</p> <p><b>lengths (1)</b> 24:16</p> <p><b>lengthy (1)</b> 58:7</p> <p><b>letting (3)</b> 29:9;37:2;55:3</p> <p><b>level (4)</b> 17:22;19:19,20; 20:20</p> <p><b>libraries (2)</b> 23:15;58:4</p> <p><b>life (1)</b> 22:6</p> <p><b>likely (1)</b> 27:7</p> <p><b>limit (8)</b> 11:10,16;12:2,21, 21;13:3,7;28:10</p> <p><b>limiting (1)</b> 22:1</p> <p><b>LINDA (15)</b> 46:12;47:2,5,8,9, 11;48:1,9,15,21,25; 49:2,4,8;57:21</p> <p><b>L-I-N-D-A (1)</b> 47:8</p> <p><b>Linda's (1)</b> 55:7</p> <p><b>line (45)</b> 3:5;5:8;7:9,11; 11:20;15:19,20;16:5, 12,16;24:25;25:16; 30:20;31:25;32:7,12; 34:8;37:25;38:6,18; 39:3;40:23;41:2,4,5, 5;42:20;47:12,14,22,</p>	<p>22;48:2,7,8,10,12,12, 14,14,16,23;55:9,10, 11;61:24</p> <p><b>lines (7)</b> 6:16;8:18;15:15; 38:11;40:25;48:18,20</p> <p><b>lines' (1)</b> 38:3</p> <p><b>link (3)</b> 27:14,16;46:1</p> <p><b>list (1)</b> 18:18</p> <p><b>listed (5)</b> 10:9;21:2,3;27:18; 29:6</p> <p><b>listen (1)</b> 53:18</p> <p><b>listening (3)</b> 28:21;33:16;42:2</p> <p><b>little (8)</b> 4:2;10:3;18:12; 22:25;30:17;51:9,17; 55:4</p> <p><b>live (1)</b> 58:19</p> <p><b>load (1)</b> 47:13</p> <p><b>local (14)</b> 4:22;11:4;13:6; 17:4;20:19;22:8,8; 23:15,21;38:21; 53:14;56:16;58:4; 60:2</p> <p><b>locate (1)</b> 30:23</p> <p><b>located (2)</b> 40:21;58:6</p> <p><b>location (1)</b> 40:20</p> <p><b>logic (1)</b> 44:3</p> <p><b>long (1)</b> 7:10</p> <p><b>look (3)</b> 8:10;36:1;41:10</p> <p><b>looked (2)</b> 10:21;59:3</p> <p><b>looking (9)</b> 15:23;20:8,22; 24:23;33:5,14;38:10; 42:8;61:12</p> <p><b>looks (13)</b> 18:15;29:11;36:20; 37:9;40:13;44:25; 45:4,6,9,10;46:16,17; 49:11</p> <p><b>Loop (1)</b> 14:12</p> <p><b>lose (2)</b> 38:16,16</p> <p><b>lost (2)</b> 38:16;46:16</p> <p><b>lot (11)</b></p>	<p>9:2;12:9,12;18:6; 32:15;33:14;49:10; 52:15;53:14;60:2,3</p> <p><b>lot's (1)</b> 12:3</p> <p><b>loud (1)</b> 58:19</p> <p><b>loudly (1)</b> 28:4</p> <p><b>Louis (10)</b> 3:4;7:8,13;9:18; 10:25;16:2,7,9,20; 43:8</p> <p><b>love (1)</b> 63:9</p> <p><b>low (1)</b> 31:7</p> <p><b>lower (1)</b> 51:24</p> <p><b>LRTP (3)</b> 9:10;12:18;56:21</p>	<p>43:16;44:14;46:4,14; 47:4,6;49:7,11,15; 53:23;54:17;57:18; 58:18;59:19;60:12, 16;61:3;62:21;64:19</p> <p><b>may (6)</b> 18:23;20:1,12; 31:19;52:9;64:11</p> <p><b>Maybe (10)</b> 35:10;37:21;39:12; 44:7;45:23;46:24; 55:7,12,15;61:10</p> <p><b>mean (3)</b> 15:17;24:20;59:23</p> <p><b>meaning (1)</b> 59:12</p> <p><b>meant (2)</b> 37:5;41:23</p> <p><b>meantime (1)</b> 29:15</p> <p><b>measures (5)</b> 21:25;23:23;25:8; 39:17;61:15</p> <p><b>meet (4)</b> 24:10,24;25:15; 61:22</p> <p><b>meeting (24)</b> 3:3,8,12,25;4:8; 10:17;13:16;21:12; 27:8,12,19;35:16; 37:17;39:24;40:14; 42:12;46:25;59:15; 62:9,9,12;63:23;64:7, 13</p> <p><b>meetings (6)</b> 3:10;14:2;26:16; 40:16;62:10;64:10</p> <p><b>megawatts (1)</b> 6:14</p> <p><b>member (1)</b> 51:1</p> <p><b>men (3)</b> 51:23,25;52:1</p> <p><b>mentioned (7)</b> 5:22;7:7;12:5; 18:15;20:8;24:4; 38:21</p> <p><b>message (1)</b> 28:18</p> <p><b>met (1)</b> 6:16</p> <p><b>methods (2)</b> 25:11;61:19</p> <p><b>mid (1)</b> 30:14</p> <p><b>Midcontinent (1)</b> 8:4</p> <p><b>midpoint (2)</b> 30:14;31:11</p> <p><b>midrange (1)</b> 57:11</p> <p><b>Midwest (2)</b> 10:12,18</p>
<p><b>K</b></p> <p><b>keep (2)</b> 51:9;64:3</p> <p><b>KELLY (20)</b> 34:1,4,4,10,17;35:8, 11,11,17,19,22;36:13, 15,16;60:15,17,17,23; 61:2,4</p> <p><b>K-E-L-L-Y (2)</b> 34:5;60:18</p> <p><b>key (1)</b> 26:6</p> <p><b>kilowatt-hour (1)</b> 60:21</p> <p><b>kind (8)</b> 16:24;25:4;30:20; 33:4;43:16;51:14; 59:9,10</p> <p><b>kinds (2)</b> 32:5;42:8</p> <p><b>KLUKKERT (8)</b> 49:14,16,17,20,21, 23;51:7,11</p> <p><b>K-L-U-K-K-E-R-T (1)</b> 49:21</p> <p><b>known (1)</b> 32:1</p> <p><b>knows (1)</b> 55:24</p>	<p><b>L</b></p> <p><b>land (2)</b> 38:8,10</p> <p><b>land-based (2)</b> 19:3,5</p> <p><b>landline (1)</b> 5:1</p> <p><b>landowner (2)</b> 40:4;44:7</p> <p><b>landowners (3)</b> 17:5;37:25;38:18</p> <p><b>large (2)</b> 5:2;9:11</p> <p><b>largely (6)</b> 9:1,4;12:25;15:19; 16:11;30:18</p> <p><b>largest (2)</b> 6:21;50:5</p> <p><b>last (15)</b> 13:10,12;16:24; 17:2,6;20:9,16,17,23, 25;28:3;49:20;53:4; 63:20,21</p> <p><b>late (2)</b> 30:1;49:25</p> <p><b>later (3)</b></p>	<p><b>M</b></p> <p><b>Maggie (17)</b> 29:16,18,21;31:5, 14,15,18;33:4;54:23; 55:2,4;57:18,21; 58:20,25;59:20;60:1</p> <p><b>M-A-G-G-I-E (2)</b> 29:22;55:5</p> <p><b>mail (6)</b> 27:20;35:14;42:25; 45:25;58:12;63:17</p> <p><b>mailed (1)</b> 62:17</p> <p><b>main (2)</b> 27:16;42:5</p> <p><b>maintain (1)</b> 28:6</p> <p><b>making (2)</b> 4:18;27:5</p> <p><b>management (1)</b> 20:5</p> <p><b>manager (4)</b> 3:21;7:20;21:10; 50:6</p> <p><b>many (4)</b> 8:8;43:9;46:2; 52:20</p> <p><b>map (4)</b> 8:18;15:24;30:21; 42:18</p> <p><b>maps (1)</b> 42:22</p> <p><b>materialize (1)</b> 14:5</p> <p><b>materialized (1)</b> 14:6</p> <p><b>MAXON (32)</b> 3:1,13;29:2,4;33:9, 17;34:2;36:20;37:3; 41:16,20;42:13,24;</p>		

<p><b>might (9)</b> 28:7;30:6;33:19; 37:3,9;39:15;45:3; 46:9;63:7</p> <p><b>mile (1)</b> 16:19</p> <p><b>miles (1)</b> 6:15</p> <p><b>milestones (1)</b> 26:6</p> <p><b>million (3)</b> 30:16;31:12,13</p> <p><b>mind (3)</b> 33:18;37:16;64:3</p> <p><b>minimize (3)</b> 18:4;25:12;61:19</p> <p><b>Minnesota (35)</b> 3:13,19;4:24;6:4,9, 10,16;7:4,21;11:3,6, 25;12:4,6,7;14:1; 19:8;30:10;32:12,17; 33:1;35:3;38:22,25; 40:6;42:16;47:18; 50:4;52:6,25;55:22; 56:18,24;57:7,15</p> <p><b>minute (2)</b> 54:3;63:2</p> <p><b>minutes (6)</b> 10:4;28:11;30:1; 43:17;54:11;63:6</p> <p><b>MISO (22)</b> 8:4,5,17,22;9:10,20, 25;10:10;12:18; 13:18;14:7,20;30:6, 18,20;31:3,25;47:25; 56:2,5,6;57:17</p> <p><b>missing (2)</b> 23:22;36:1</p> <p><b>mitigate (6)</b> 18:5;23:12;24:13; 25:12;39:18;61:19</p> <p><b>mitigation (8)</b> 18:7;19:7;20:4; 21:25;23:22;25:7; 39:16;61:15</p> <p><b>mitigations (1)</b> 20:1</p> <p><b>mix (1)</b> 12:15</p> <p><b>modern (1)</b> 50:12</p> <p><b>modernization (1)</b> 14:13</p> <p><b>moment (1)</b> 36:16</p> <p><b>moments (1)</b> 13:15</p> <p><b>Monday (1)</b> 3:10</p> <p><b>month (2)</b> 60:20,25</p> <p><b>monthly (2)</b> 57:10,14</p>	<p><b>months (1)</b> 13:13</p> <p><b>more (27)</b> 5:24;10:4,13,14; 11:1;13:25;22:3; 33:11;37:21,24; 38:25;39:8,24;41:9; 42:14;45:8,9;46:6,18, 23,24;53:6;54:11; 55:4;56:14;58:9; 59:16</p> <p><b>most (2)</b> 17:2;32:24</p> <p><b>move (4)</b> 12:19;34:12;53:21; 63:20</p> <p><b>moved (1)</b> 14:7</p> <p><b>movement (2)</b> 9:13;13:1</p> <p><b>Moving (2)</b> 5:7;9:22</p> <p><b>MP (3)</b> 9:17;14:8;53:2</p> <p><b>MPUC (1)</b> 30:24</p> <p><b>much (8)</b> 33:3,6;39:5;40:17; 49:1;51:13;52:13; 64:14</p> <p><b>multiple (2)</b> 9:12;11:2</p> <p><b>municipalities (1)</b> 6:22</p> <p><b>must (1)</b> 23:9</p> <p><b>mute (2)</b> 34:24;37:11</p> <p><b>muted (2)</b> 45:4;46:10</p> <p><b>muting (1)</b> 45:13</p> <p><b>MVA (7)</b> 11:10,13;12:2,21, 21;13:3,7</p>	<p><b>N</b></p>	<p><b>NDAs (1)</b> 53:17</p> <p><b>near (1)</b> 13:14</p> <p><b>necessary (2)</b> 12:22;25:24</p> <p><b>necessity (1)</b> 50:12</p> <p><b>need (30)</b> 5:10,11,13;7:22; 9:5,8;10:8;14:4,6; 24:6,6,10,24;25:9,15; 26:2;27:6,19;31:21; 32:6,15;36:8,12; 38:24;43:1;47:22; 51:15;58:2;61:23; 62:15</p> <p><b>needed (9)</b> 8:12;10:16;12:25, 25;24:1;26:20,24; 36:2,7</p> <p><b>needing (1)</b> 61:16</p> <p><b>needs (6)</b> 9:14;10:2;13:4,6; 14:15;15:4</p> <p><b>neighboring (1)</b> 12:13</p> <p><b>neighbors (1)</b> 12:12</p> <p><b>new (3)</b> 21:24;41:5;54:18</p> <p><b>next (23)</b> 5:7;6:7;7:15;8:13; 10:5;11:7;13:11; 17:13;18:19,20;19:1; 22:11;23:1,8;24:3; 25:3,18,19;26:4; 27:10;29:14;53:21; 58:24</p> <p><b>night (1)</b> 64:18</p> <p><b>nine-state (1)</b> 56:8</p> <p><b>nobody (3)</b> 48:12;63:4,6</p> <p><b>noise (1)</b> 21:23</p> <p><b>nondisclosure (1)</b> 50:18</p> <p><b>non-transmission (1)</b> 24:19</p> <p><b>North (4)</b> 11:24;12:8;16:2,7</p> <p><b>northeastern (1)</b> 6:11</p> <p><b>Northern (1)</b> 11:6</p> <p><b>Northwest (2)</b> 11:4;15:25</p> <p><b>note (2)</b> 22:19;62:6</p> <p><b>notes (1)</b> 33:15</p> <p><b>notice (1)</b> 23:21</p> <p><b>nuance (1)</b> 56:14</p> <p><b>number (16)</b> 13:12;15:2;18:16; 21:3;29:6;39:22; 41:25;42:6;43:3,5; 44:22;46:7,24;54:8; 60:10,12</p> <p><b>numbers (1)</b> 3:6</p>	<p><b>O</b></p> <p><b>obligation (3)</b> 9:19;14:9;30:22</p> <p><b>obstacles (1)</b> 12:24</p> <p><b>obvious (1)</b> 51:16</p> <p><b>obviously (2)</b> 17:10;62:2</p> <p><b>off (16)</b> 3:15,19,24;5:25; 6:4,6;18:18;34:24; 35:16;37:11;38:23; 42:4;48:14;50:14; 54:5;59:24</p> <p><b>Office (1)</b> 19:17</p> <p><b>officially (1)</b> 26:13</p> <p><b>offline (2)</b> 35:15;36:10</p> <p><b>often (1)</b> 19:16</p> <p><b>once (4)</b> 33:11;45:8;47:18; 51:11</p> <p><b>one (27)</b> 4:1,3;7:23,24;11:8, 11;16:19;19:6;29:4,8, 10,21;33:8,23;34:7; 36:21;37:15;38:9; 41:4;42:14;44:22; 45:9;46:6,18,23,24; 55:15</p> <p><b>online (5)</b> 4:2;27:14;28:12; 37:22;39:8</p> <p><b>only (2)</b> 26:10;50:11</p> <p><b>onto (1)</b> 39:4</p> <p><b>open (11)</b> 14:2;17:6;20:15; 26:17;27:8;28:1,23; 40:14,15;52:22;58:21</p> <p><b>open-ended (1)</b> 44:4</p> <p><b>operates (2)</b> 7:1,2</p> <p><b>operating (1)</b> 10:13</p> <p><b>operations (1)</b> 6:22</p> <p><b>operator (2)</b> 8:4,5</p> <p><b>opinion (1)</b> 28:8</p> <p><b>opportunities (1)</b> 26:8</p> <p><b>opportunity (1)</b> 22:23</p> <p><b>opposed (5)</b> 49:24;50:1,15;52:4, 5</p> <p><b>opposition (1)</b> 51:5</p> <p><b>orange (1)</b> 15:24</p> <p><b>orient (1)</b> 3:12</p> <p><b>origin (1)</b> 12:1</p> <p><b>original (1)</b> 30:18</p> <p><b>others (2)</b> 28:6;59:3</p> <p><b>Otherwise (1)</b> 63:23</p> <p><b>ourselves (1)</b> 34:24</p> <p><b>out (28)</b> 16:18;18:8,25; 19:23;20:1;29:14; 30:22;39:21;40:15; 41:17;42:7,21,22; 43:3,14;46:15,23,24; 51:21;53:13;56:7,10; 57:24;58:13,17; 62:16;63:12;64:15</p> <p><b>outlined (1)</b> 8:19</p> <p><b>outlines (1)</b> 26:5</p> <p><b>outside (3)</b> 16:2,7,9</p> <p><b>over (10)</b> 6:13,15;7:16;8:13; 11:23;12:7;13:12; 16:24;20:17,24</p> <p><b>overall (2)</b> 10:9;15:16</p> <p><b>overhead (1)</b> 7:10</p> <p><b>overlay (1)</b> 9:12</p> <p><b>overtake (1)</b> 16:11</p> <p><b>overtaking (1)</b> 15:19</p> <p><b>overview (4)</b> 4:24;6:5,8;7:6</p>
--	--	-----------------	---	---

own (1) 35:9	5,6;24:5;25:14,25; 26:19,22;27:6,7;33:5;	41:1,3	proceeding (2) 5:13;57:3	3:16;4:23;21:17; 23:19;24:7;27:11; 28:16;35:12,24;36:8; 41:9;47:13;58:10
owners (1) 9:17	61:21	poles (2) 41:6,7	proceedings (1) 24:6	provided (3) 27:14;45:20;54:19
<b>P</b>	permits (1) 5:2	polite (1) 52:8	process (23) 4:15;5:24;13:20; 17:1,11;21:6,14,15, 17,18;22:13,22,24; 24:22;26:7,12;32:22; 34:13;36:6;39:9;40:4; 43:25;54:9	provides (1) 11:1
pages (1) 58:9	permitted (3) 11:21;22:7;32:19	Pollution (1) 19:22	produced (2) 9:15;10:16	providing (3) 11:5;22:7;53:18
panelist (4) 33:21,23;37:7; 44:23	permitting (6) 4:15;17:10;21:17; 22:13;26:7;52:18	portfolio (13) 8:3,6,16,21;9:25; 10:7,10,22;11:1; 12:18,18;56:10,21	progress (1) 8:8	public (35) 3:2,8,14,19;4:11, 24:5;13;7:24;14:2; 17:6,15;19:2;20:15; 21:10;22:24;23:6; 26:9,15,18,24;27:1,2, 8,15,16,20;42:3,16; 43:6;50:2,5;53:2; 58:15;63:25;64:20
parcel (2) 38:13,15	person (9) 4:4;29:4,14;33:9, 17;45:1;51:14;58:24; 62:11	portion (3) 3:23;5:21;6:11	project (121) 3:5,6,9,17,21;4:10, 13,16;5:8,19;6:5,23; 7:6,9,9,11,22;8:2,2, 19;9:19,20,22;10:1,7, 20,21;11:9,12,20; 12:22,23;13:5,9,14, 17,24;14:3,3,4,7,9,10, 12,13,20;15:4,13; 16:1,4,23;17:18,21, 24;18:2,11,24;20:5,9, 12;21:3,4,15,20;22:6, 18,21;23:11,15,16; 24:4,9,11,11,17,20, 24;25:1,9,15,17;26:1, 6,10;29:25;30:3,7,11, 12,19;31:2,12,22; 32:15,18;35:4;39:15; 40:13,22;41:2,4;42:4; 43:7,9,14;47:20,23; 52:12;53:9,10;56:4,7, 21;57:5,11,16;58:5; 60:9;61:16,23,25	publicly (2) 32:1;64:9
parcels (5) 38:5,6,10;39:4;41:1	personal (3) 37:24;38:5;64:2	possibly (3) 4:19;38:17;46:23	PUC (4) 21:6;32:21;52:17; 53:6	pulled (1) 53:4
Parker (10) 36:21;37:13,14; 40:21;41:14;43:11, 20,24;44:10,13	perspective (1) 18:17	posted (1) 64:11	purpose (1) 12:17	purposes (1) 10:1
P-A-R-K-E-R (1) 37:14	pesticides (1) 35:20	potential (10) 17:6;18:1,5,23; 19:25;25:6,12;61:9, 14,20	putting (2) 32:19;34:7	<b>Q</b>
part (15) 6:11;8:2,20;9:24; 10:25;11:18;12:1,17, 22;13:5,7;17:19; 40:22;50:20;62:8	petition (1) 53:1	Power (32) 6:4,9,10,14;7:4,21; 9:5,8,13;11:6,14,16; 12:5,6;14:1;30:10; 32:12,17;35:3;38:2, 18;40:6;47:18,24; 50:5,7;52:6,25;55:22; 56:19,25;57:8	quick (5) 3:11;31:6;34:5; 39:11;62:21	quickly (1) 29:7
participation (1) 21:13	phases (1) 8:6	Power's (1) 57:15	quite (5) 28:12;49:23;50:24; 59:7,15	<b>R</b>
parties (1) 52:11	phone (14) 21:3;28:21;29:6; 33:18;42:6;45:1,2,3; 46:10,19,24;54:14; 61:7;62:23;63:9	practical (2) 25:11;61:19	raise (11) 4:5;44:16,19;53:25; 54:15,16,20;61:6; 62:23,25;63:21	raised (7) 33:8,10;45:6;46:8; 63:2,12,19
partway (1) 40:11	physical (6) 27:20;45:25;58:10, 12;62:17;63:17	preliminary (1) 25:22	raise-hand (1) 28:19	raises (1) 63:6
pass (2) 3:15,18	piece (1) 17:16	prepare (3) 5:14;24:2,7	raise-your-hand (1)	
past (1) 6:17	place (3) 15:2;32:7,23	prepared (2) 5:17;17:20		
paths (1) 11:5	placed (1) 11:16	presentation (6) 3:23;5:22;30:1; 38:2;46:1;52:16		
patience (1) 43:12	plan (5) 8:2,6;19:7;20:4,5	presented (1) 52:25		
people (10) 28:7,12;37:2,18,21; 48:7;54:12;60:8;61:8; 62:22	planning (4) 7:20;8:7;13:20,21	Preservation (1) 19:16		
per (4) 60:20,21,21,25	plans (1) 22:3	press (4) 28:21;44:18;54:14; 63:9		
percent (7) 6:19;12:8,11;15:15; 56:22;57:8,15	pleas (1) 50:24	pressing (1) 33:19		
percentages (1) 56:16	please (14) 4:1;6:7;27:23; 28:10;37:19;43:10, 19;44:15;46:15;47:7; 49:19;53:24;57:24; 64:16	pretty (2) 20:10;51:13		
perhaps (2) 32:8;55:10	plenty (2) 54:21;63:3	previous (1) 38:21		
period (9) 22:15;25:21;26:17; 27:1,2,22;52:22;53:8; 64:5	pm (2) 27:23;37:17	previously (1) 5:22		
permit (31) 4:12,18,19;5:5,10, 11;15:12;17:19;18:8, 9;20:1;21:19;22:5,12, 13,17,17,20,23;23:4,	point (12) 16:1,1,6;22:12,21; 24:22;30:6;43:21; 50:1,10;55:25;59:6	primarily (1) 7:2		
	points (1) 55:16	print (1) 42:22		
	pole (2)	probably (3) 28:12;53:11;54:12		

<p>28:17 <b>raising (3)</b> 29:5;33:18;45:1 <b>Range (14)</b> 3:4;7:8,12;9:18; 10:24;15:25;30:13, 14;31:6,7,8,10;43:8; 57:12 <b>rate (7)</b> 35:5;56:24;57:1,2, 4,7;60:23 <b>ratepayers (3)</b> 33:1;34:16;55:14 <b>rates (1)</b> 57:2 <b>rather (2)</b> 7:3;51:16 <b>reach (8)</b> 39:20;42:7,21; 57:24;58:13,17; 62:16;63:12 <b>read (6)</b> 4:21;18:18;41:17; 46:23,23;54:5 <b>ready (1)</b> 37:12 <b>real (2)</b> 16:25;39:11 <b>realize (2)</b> 18:23;55:11 <b>realized (1)</b> 40:10 <b>really (15)</b> 14:17;15:2;20:9,17; 32:15,20;38:23; 39:20;40:1;42:10; 46:21;55:9,17;59:1; 64:16 <b>realm (1)</b> 7:2 <b>reason (6)</b> 13:4;29:9;37:6; 44:3,24;45:22 <b>reasonable (1)</b> 28:7 <b>reasons (1)</b> 32:13 <b>receive (3)</b> 4:11;23:24;48:10 <b>receives (1)</b> 48:13 <b>recently (3)</b> 14:11;19:6,9 <b>recognizing (1)</b> 30:5 <b>recommendation (1)</b> 31:19 <b>record (11)</b> 4:11;7:25;21:14; 25:20;27:5;43:15; 45:21;46:3;62:8; 63:17;64:8 <b>recording (1)</b></p>	<p>4:7 <b>recreation (1)</b> 18:22 <b>reduce (3)</b> 21:21;22:9;39:18 <b>redundant (1)</b> 11:5 <b>referenced (1)</b> 20:22 <b>referencing (1)</b> 42:15 <b>reflected (1)</b> 59:15 <b>regarding (1)</b> 13:13 <b>region (8)</b> 9:13;10:22;12:13, 20;55:14;56:8,11; 57:17 <b>regional (14)</b> 7:20;8:2,7,13;9:25; 10:1;11:2;12:19,23; 13:8,8,18;15:4;56:6 <b>region's (1)</b> 8:4 <b>register (1)</b> 51:4 <b>regulate (1)</b> 4:25 <b>regulatory (1)</b> 11:15 <b>reiterate (2)</b> 9:24;52:17 <b>reiterating (1)</b> 60:5 <b>related (4)</b> 7:23;13:6;14:15; 62:3 <b>relation (2)</b> 42:19;47:23 <b>relevant (2)</b> 17:3;19:21 <b>Reliability (7)</b> 8:11;10:1,12;11:5; 13:9,19;14:14 <b>reliable (2)</b> 8:12;10:17 <b>relies (1)</b> 21:13 <b>rely (1)</b> 43:14 <b>remain (1)</b> 26:17 <b>remarks (1)</b> 49:25 <b>remind (1)</b> 36:5 <b>reminded (1)</b> 51:18 <b>reminder (1)</b> 62:22 <b>reminders (1)</b> 63:24</p>	<p><b>removal (1)</b> 12:21 <b>remove (2)</b> 12:23;13:7 <b>removed (1)</b> 13:4 <b>renewable (5)</b> 6:19;12:8,19;13:1, 22 <b>replaced (1)</b> 41:2 <b>replacement (1)</b> 22:3 <b>replacing (1)</b> 40:23 <b>report (7)</b> 5:15;24:8;25:2; 26:3,21,23;27:3 <b>reporter (6)</b> 4:7;28:4,5;45:20; 62:12,13 <b>reporter's (1)</b> 64:8 <b>reports (1)</b> 24:8 <b>represent (1)</b> 26:8 <b>representation (2)</b> 17:4;23:2 <b>represents (1)</b> 26:11 <b>request (1)</b> 13:7 <b>require (2)</b> 5:9;24:7 <b>required (1)</b> 32:21 <b>resident (1)</b> 49:17 <b>residential (7)</b> 32:17;57:6,7,9,13; 60:20;61:1 <b>residents (2)</b> 32:16,25 <b>resources (15)</b> 18:6,16,21;19:4,6, 12,12,13,15,18,22,23, 24;20:2;22:8 <b>respect (1)</b> 28:6 <b>respectful (1)</b> 4:1 <b>respond (5)</b> 40:7,9;47:19;55:21; 57:19 <b>responding (1)</b> 7:24 <b>rest (1)</b> 17:12 <b>restate (1)</b> 54:25 <b>retail (1)</b> 57:1</p>	<p><b>return (1)</b> 55:7 <b>review (13)</b> 3:21;4:15;5:12,23; 19:10;20:6;21:10; 23:18;26:6,7,14; 35:25;64:10 <b>reviewed/approved (1)</b> 14:11 <b>right (16)</b> 7:17;28:19;37:13; 39:4;40:17;44:10; 48:15;51:21,23; 52:22;53:10;55:12; 56:1;59:11;60:3; 63:22 <b>right-of-way (7)</b> 15:19,21;16:5,12, 13;17:14;41:8 <b>rights (1)</b> 44:7 <b>River (2)</b> 16:2,7 <b>rounding (2)</b> 16:18;19:23 <b>rounds (2)</b> 17:5;20:15 <b>route (24)</b> 5:2,10,11;9:22; 15:7,11,11,14,16,22; 16:3;17:8,19;18:9; 20:16;24:5;25:8; 26:19;27:6;30:19,25; 31:2;42:20;61:16 <b>routed (1)</b> 15:18 <b>routing (4)</b> 17:1,7;22:2;24:19 <b>rows (1)</b> 26:7 <b>rules (1)</b> 3:25 <b>run (1)</b> 16:20 <b>running (2)</b> 17:13;40:4 <b>runs (1)</b> 16:1</p>	<p>50:4;52:5 <b>same (8)</b> 9:5;12:14;23:4; 31:10;35:7;46:3; 47:20;56:23 <b>sample (2)</b> 22:12;23:3 <b>savings (1)</b> 6:17 <b>saw (2)</b> 38:22;56:8 <b>saying (1)</b> 32:12 <b>scale (1)</b> 50:23 <b>schedule (1)</b> 26:6 <b>Schuppert (10)</b> 29:16,18,22,22; 31:5,14,18;55:2,4; 58:25 <b>S-C-H-U-P-P-E-R-T (2)</b> 29:23;55:5 <b>scope (2)</b> 26:2,21 <b>scoping (1)</b> 3:3 <b>screen (2)</b> 8:20;40:19 <b>second (14)</b> 3:7;8:21;25:11,24; 27:1;29:8,10,21; 33:23;44:22;45:17; 50:11;57:19;61:18 <b>Section (10)</b> 10:11;30:12;35:7, 13;56:1,3,19,23; 57:25;59:4 <b>Sections (4)</b> 10:23;35:24;58:11, 13 <b>seeing (7)</b> 36:18;59:13;62:19; 63:1,11,19;64:12 <b>seeking (1)</b> 9:11 <b>seems (4)</b> 38:24;51:16;54:21; 55:12 <b>Segment (12)</b> 15:23;16:3,6,8,10, 14,19,20;38:1,4,18; 40:21 <b>segments (1)</b> 15:23 <b>select (1)</b> 62:24 <b>Senate (1)</b> 5:4 <b>send (7)</b> 27:20;28:17;39:21; 42:24;44:8;63:14,16 <b>sent (1)</b></p>
			<b>S</b>	
			<p><b>SAARAH (39)</b> 3:1,13;6:1;7:7; 24:4;28:25;29:2,4; 33:9,17;34:2;36:20; 37:3;41:13,16,20; 42:13,24;43:16; 44:14;46:4,14;47:4,6; 49:7,11,15;53:4,22, 23;54:17;57:18; 58:18;59:19;60:12, 16;61:3;62:21;64:19 <b>sale (2)</b></p>	

<p>35:14 <b>separate (4)</b> 14:23;15:23;46:11; 57:3 <b>Separately (1)</b> 5:16 <b>serve (2)</b> 12:7,12 <b>service (6)</b> 6:10;14:24;17:18; 48:10,13;53:1 <b>services (1)</b> 19:2 <b>set (1)</b> 17:22 <b>sets (1)</b> 41:7 <b>setting (1)</b> 32:11 <b>share (2)</b> 56:20;57:15 <b>shared (1)</b> 56:11 <b>sharing (1)</b> 46:5 <b>sheet (1)</b> 27:13 <b>shocked (1)</b> 50:1 <b>show (2)</b> 18:20;54:14 <b>showing (1)</b> 40:12 <b>shows (1)</b> 38:2 <b>side (4)</b> 15:12;16:16;41:4,5 <b>siege (1)</b> 51:19 <b>sign (1)</b> 53:17 <b>signed (1)</b> 44:1 <b>similar (4)</b> 14:3;20:3;38:19; 55:17 <b>similarly (1)</b> 38:19 <b>simply (1)</b> 22:21 <b>single (1)</b> 41:3 <b>sit (1)</b> 63:5 <b>site (1)</b> 5:1 <b>siting (1)</b> 32:9 <b>sitting (1)</b> 51:21 <b>situation (1)</b> 13:17 <b>size (2)</b></p>	<p>24:15,15 <b>skyrocket (1)</b> 34:9 <b>slide (31)</b> 5:7;6:7;10:5;11:7; 13:10,11;17:22; 18:19;19:1;20:23; 22:11;23:1,8;24:3; 25:3,18;26:4,5;27:10; 28:20;29:1;40:12,12; 41:14;43:4;44:17; 53:4;54:4;56:9;61:10; 63:20 <b>slides (8)</b> 6:5;7:15;18:20; 19:24;20:22;39:23; 62:7,17 <b>slights (1)</b> 51:2 <b>smallest (2)</b> 38:12,15 <b>sneaky (2)</b> 50:17,17 <b>snuck (1)</b> 50:17 <b>someone (4)</b> 30:2;33:7;55:16,18 <b>sometime (1)</b> 39:22 <b>somewhat (1)</b> 31:19 <b>soon (2)</b> 38:22;45:12 <b>sooner (1)</b> 24:21 <b>sorry (14)</b> 27:25;29:7,10,12; 31:5;33:24;34:3; 41:23;45:13;47:1; 49:16,24;58:18;59:23 <b>sort (5)</b> 11:13;31:20;55:7; 59:2,11 <b>sounds (3)</b> 29:2;35:1;43:23 <b>source (1)</b> 20:14 <b>spanning (1)</b> 7:12 <b>speak (17)</b> 28:4,13,18;29:17; 33:11,25;34:14,19; 36:22;37:5,12;39:12, 24;43:7;53:16;54:15; 60:5 <b>speaking (5)</b> 40:20;45:3;49:14; 58:1;59:20 <b>special (3)</b> 22:5,17;33:5 <b>specialist (1)</b> 6:3 <b>specific (5)</b></p>	<p>10:19;11:9;22:18; 58:11,13 <b>Specifically (1)</b> 20:3 <b>speech (2)</b> 51:18,20 <b>spell (4)</b> 28:3;46:15;49:19; 55:1 <b>spread (2)</b> 56:7,10 <b>St (10)</b> 3:4;7:8,13;9:18; 10:25;16:2,7,9,20; 43:8 <b>staff (7)</b> 4:14;5:13;21:13; 24:1,7;36:4;39:13 <b>stakeholder (2)</b> 17:1;20:10 <b>standard (2)</b> 22:4,13 <b>star (1)</b> 26:11 <b>start (5)</b> 3:11,24;6:4;16:23; 23:3 <b>started (3)</b> 17:11;26:13;46:7 <b>starting (5)</b> 6:8;22:12,21;44:23; 60:13 <b>starts (2)</b> 29:6;45:2 <b>State (12)</b> 4:14;6:12,18;11:3; 17:3;19:14,16,20; 20:21;28:2;46:15; 49:18 <b>stated (3)</b> 24:24;25:15;61:23 <b>states (1)</b> 9:12 <b>State's (4)</b> 20:6;21:16;26:7,14 <b>stay (1)</b> 63:4 <b>steel (1)</b> 41:3 <b>step (1)</b> 36:6 <b>Steve (1)</b> 55:16 <b>Steven (16)</b> 36:21;37:3,8,13,14; 39:10,13;42:11;43:2, 11,18,20,24;44:5,10, 13 <b>S-T-E-V-E-N (1)</b> 37:14 <b>still (14)</b> 9:4;14:19;21:1; 24:10;31:15;32:7;</p>	<p>41:6;45:14;51:23; 58:22;63:1,11,19; 64:12 <b>strategies (2)</b> 18:4;24:12 <b>stray (1)</b> 35:20 <b>string (1)</b> 16:15 <b>stronger (2)</b> 32:20,23 <b>structure (1)</b> 24:18 <b>structures (6)</b> 7:12;16:14,17; 18:24;41:3,10 <b>stuck (1)</b> 14:5 <b>studied (3)</b> 25:1,17;61:25 <b>studies (5)</b> 13:21,22,22;17:25; 47:25 <b>stuff (4)</b> 35:14;53:15;59:7, 12 <b>subject (1)</b> 57:16 <b>submissions (1)</b> 64:3 <b>submit (2)</b> 27:13;64:3 <b>subregions (1)</b> 56:17 <b>Subsection (1)</b> 56:24 <b>subsequent (1)</b> 57:3 <b>substation (10)</b> 7:13;11:11,15,17, 18;15:25;16:9,21,21; 47:21 <b>substations (1)</b> 7:14 <b>subvert (1)</b> 51:12 <b>sufficient (1)</b> 47:24 <b>suggest (1)</b> 39:16 <b>summary (1)</b> 25:5 <b>support (2)</b> 8:12;14:14 <b>supposed (1)</b> 34:18 <b>sure (12)</b> 29:13;31:18;39:11; 41:11;42:22;45:15; 46:19;47:1;52:20; 54:12;55:2,23 <b>surrounding (1)</b> 60:3</p>	<p><b>surveys (1)</b> 17:14 <b>System (9)</b> 8:5;9:8;10:14; 23:17;24:9,14;62:8, 14;64:1</p> <hr/> <p style="text-align: center;"><b>T</b></p> <hr/> <p><b>table (4)</b> 31:10;55:12;56:19, 25 <b>taker (1)</b> 49:12 <b>talk (8)</b> 4:4;7:6,7;10:3; 11:8;15:7;22:24; 41:23 <b>talked (4)</b> 23:3;25:5;43:17; 46:1 <b>talking (11)</b> 8:1;13:19;31:1; 35:4;38:14;48:7,8,9; 57:8;61:11;63:22 <b>taller (1)</b> 18:24 <b>tariff (1)</b> 56:5 <b>technical (1)</b> 37:9 <b>technology (2)</b> 34:24;49:8 <b>tentative (1)</b> 26:5 <b>terminal (1)</b> 16:1 <b>terms (2)</b> 50:11;59:13 <b>territory (1)</b> 6:10 <b>Thanks (9)</b> 7:18;19:1;31:8; 33:2;46:4;49:5,7; 54:23;61:3 <b>thinking (2)</b> 61:8,9 <b>third (3)</b> 25:14;26:1;38:9 <b>thought (1)</b> 59:2 <b>three (5)</b> 3:9;15:23;25:22; 38:5,10 <b>Throughout (3)</b> 17:2,12;22:6 <b>throw (1)</b> 53:13 <b>thrown (1)</b> 51:13 <b>timeline (2)</b> 16:23;20:9 <b>times (4)</b></p>
--	--	--	--	---

<p>12:9;18:6;20:13; 40:15 <b>timing (2)</b> 24:15,20 <b>TL-25-112 (1)</b> 3:7 <b>today (12)</b> 4:9;9:1,21;12:5,9, 15;13:1,17;14:19; 17:9;41:8;51:24 <b>today's (1)</b> 38:2 <b>together (1)</b> 44:6 <b>told (1)</b> 53:9 <b>tonight (8)</b> 3:2,7;4:7,13;21:12, 16;28:9;64:14 <b>tonight's (1)</b> 27:12 <b>took (1)</b> 10:19 <b>top (2)</b> 8:20;10:9 <b>topics (5)</b> 23:24;25:4;61:11; 62:2,4 <b>total (4)</b> 6:20,20;56:20,22 <b>touch (1)</b> 44:9 <b>toward (1)</b> 8:20 <b>town (2)</b> 51:19,20 <b>township (1)</b> 20:20 <b>tracks (1)</b> 22:6 <b>train (1)</b> 58:19 <b>Tranche (4)</b> 8:17,21;12:18;56:9 <b>transcribed (2)</b> 45:20;62:11 <b>transcript (1)</b> 64:9 <b>transcriptions (1)</b> 62:12 <b>transfer (1)</b> 11:2 <b>transferred (1)</b> 10:15 <b>transfers (4)</b> 11:6,23;12:19,24 <b>transition (2)</b> 9:6;12:14 <b>transmission (29)</b> 3:5;5:8;6:15,24;7:2, 9,11,20;8:13;9:11,17; 10:14;14:10;16:5,12; 22:14;23:4;24:25;</p>	<p>25:16;34:7;37:25; 38:6,11;40:25;41:2; 42:20;48:12,14;61:24 <b>transportation (1)</b> 19:2 <b>treatment (1)</b> 52:10 <b>tree (2)</b> 21:23;22:2 <b>Tribal (1)</b> 20:19 <b>tried (1)</b> 51:12 <b>try (13)</b> 27:23;29:13;33:20, 22,22,24,25;36:24; 37:7;45:16;46:6,8,18 <b>trying (4)</b> 8:10;34:24;43:25; 59:2 <b>Tuesday (2)</b> 3:10;40:11 <b>turned (1)</b> 50:14 <b>two (6)</b> 3:5;5:9;38:7;40:25; 41:6;51:3 <b>type (2)</b> 24:15,17 <b>types (1)</b> 24:18 <b>typically (1)</b> 18:25</p>	<p>44:25;45:2,5,7,10, 14;46:17,19 <b>unmuting (1)</b> 45:14 <b>up (24)</b> 3:22;8:19;9:22; 15:13;27:18;28:1,13, 23;29:1;31:1,6;36:19, 21;39:7;41:14;43:21; 47:15;50:20;51:1; 53:5;54:3;55:4;59:20; 63:8 <b>updated (2)</b> 20:12,13 <b>upfront (1)</b> 13:16 <b>upgrade (1)</b> 55:10 <b>upgraded (2)</b> 32:8;47:23 <b>upgrades (2)</b> 32:5;55:10 <b>uplift (3)</b> 55:15;59:2,6 <b>Upper (3)</b> 10:12,18;57:11 <b>urge (2)</b> 52:9,11 <b>use (6)</b> 8:14,25;9:3;22:16; 42:18;56:13 <b>used (2)</b> 9:15;17:7 <b>usefulness (1)</b> 50:12 <b>user (1)</b> 57:14 <b>users (1)</b> 56:11 <b>using (1)</b> 9:4 <b>Utilities (17)</b> 3:14,20;4:25;5:1, 14;7:1,9;16:12;13; 21:11;27:15,21;42:3, 16;43:6;50:2;53:2; 58:15 <b>utility (6)</b> 6:18;7:1;12:6;50:5, 9;61:1 <b>utilizing (2)</b> 11:25;12:11</p>	<p><b>virtual (1)</b> 3:8 <b>visual (1)</b> 23:2 <b>voltage (1)</b> 35:20 <b>voltages (1)</b> 24:16</p>	<p>30:8,9;31:9;34:19,23; 35:2,3,10;40:8;47:17, 18;48:5,11,19,22; 55:20,21;60:22,24 <b>Wisconsin (5)</b> 6:25;11:4,16,25; 38:23 <b>withdraw (1)</b> 52:12 <b>within (8)</b> 6:18;16:14;18:7,9, 13,21;19:4;56:18 <b>won (1)</b> 51:24 <b>wood (1)</b> 41:1 <b>word (1)</b> 11:13 <b>words (1)</b> 48:3 <b>work (5)</b> 14:20;33:12;38:23; 44:2;58:16 <b>worked (2)</b> 46:14,17 <b>working (2)</b> 8:6;20:6 <b>works (2)</b> 7:4;13:20 <b>world (1)</b> 50:21 <b>worried (1)</b> 39:17 <b>worries (1)</b> 58:23 <b>worry (1)</b> 4:3 <b>write (1)</b> 45:24 <b>written (2)</b> 27:13;64:5 <b>wrong (1)</b> 52:9</p>
	<b>U</b>		<b>W</b>	
	<p><b>ultimate (1)</b> 34:14 <b>ultimately (4)</b> 5:5;8:10;23:6; 30:24 <b>Um-hmm (1)</b> 42:23 <b>Under (5)</b> 5:12;8:11;38:15; 53:3;56:5 <b>undercuts (1)</b> 50:7 <b>undergoes (1)</b> 20:6 <b>unique (4)</b> 22:8;23:21;25:7; 61:14 <b>units (1)</b> 20:19 <b>universe (1)</b> 50:6 <b>unmute (15)</b> 29:7,10,13,16;33:8, 20,22;36:22,23;37:2, 8;46:8;54:23;58:22; 60:14 <b>unmuted (8)</b></p>	<p><b>variable (1)</b> 10:13 <b>vegetation (3)</b> 19:24;20:3,5 <b>verbal (1)</b> 27:12 <b>verbatim (1)</b> 18:18</p>	<p><b>walls (1)</b> 52:1 <b>wants (1)</b> 57:22 <b>water (4)</b> 19:12,18;50:11; 51:3 <b>way (13)</b> 8:14,24;9:2,3; 35:24;40:18;50:16, 20;53:15;54:10;56:4; 59:22;63:16 <b>ways (11)</b> 9:13;21:17,21;22:9; 23:12;24:23;25:14; 39:17;43:9;46:2; 61:22 <b>Webex (5)</b> 28:17;44:19;53:25; 54:16;62:24 <b>webpage (6)</b> 23:16;27:15,17; 42:5,14,17 <b>website (10)</b> 5:20;20:12;21:4; 42:3,4,16;46:2;57:23, 23;63:15 <b>week (2)</b> 26:16;62:10 <b>weight (1)</b> 51:13 <b>welcome (3)</b> 27:9;49:23;53:6 <b>Weston (9)</b> 11:19;47:12,14,21; 48:2,7,12,23;55:11 <b>what's (3)</b> 8:12;11:19;34:8 <b>whenever (1)</b> 34:11 <b>whole (1)</b> 57:17 <b>whose (1)</b> 48:7 <b>wider (1)</b> 41:7 <b>wildlife (2)</b> 19:24;21:24 <b>willing (1)</b> 60:4 <b>Winter (23)</b> 6:6;7:17,19;27:7;</p>	<p style="text-align: center;"><b>Y</b></p> <p><b>year (9)</b> 16:25;17:2,6,9,12; 20:9,16,17,25 <b>years (3)</b> 6:17;8:8;17:13</p>
		<b>V</b>		<b>1</b>
				<p><b>1 (6)</b> 8:17;15:23;16:3; 41:25,25;54:7 <b>1,000 (1)</b> 58:9 <b>1,600 (1)</b> 6:14 <b>12 (2)</b> 38:8,16</p>

<p><b>130-foot (1)</b> 39:6 <b>14 (1)</b> 6:22 <b>150,000 (1)</b> 6:20 <b>16 (1)</b> 6:17 <b>17 (2)</b> 38:15,16</p>	<p>16:19 <b>3.4 (1)</b> 10:23 <b>3.5 (1)</b> 10:23 <b>30- (1)</b> 39:5 <b>345-kilovolt (3)</b> 5:8;7:10;16:22 <b>345-kV (5)</b> 3:4;11:19;12:1; 41:5;47:22</p>	<p><b>95 (1)</b> 12:11</p>		
<b>2</b>				
<p><b>2 (12)</b> 12:18;16:6,8,10,14; 38:1,4,18;40:21; 56:22;57:8,15 <b>2.1 (2)</b> 8:21;56:9 <b>2.3 (1)</b> 10:11 <b>2.4 (3)</b> 30:12;35:7;56:1 <b>2.4.3.1 (2)</b> 56:3,19 <b>2.4.3.2 (1)</b> 56:24 <b>20 (1)</b> 16:13 <b>2000s (4)</b> 11:22;12:4,10,16 <b>2013 (1)</b> 14:4 <b>2020 (2)</b> 8:7;13:21 <b>2022 (1)</b> 8:17 <b>2024 (3)</b> 8:23;14:22;30:7 <b>2025 (2)</b> 16:25;20:12 <b>2026 (3)</b> 26:23;27:7;64:6 <b>2029 (1)</b> 17:17 <b>2032 (1)</b> 17:18 <b>20th (1)</b> 26:13 <b>218 (2)</b> 29:7;60:13 <b>230-kilovolt (3)</b> 16:4,11;40:23 <b>230-kV (1)</b> 16:16 <b>23rd (3)</b> 26:17;27:22;64:6 <b>26-159 (1)</b> 53:3</p>	<b>4</b>			
	<p><b>4:30 (1)</b> 27:23 <b>441 (1)</b> 30:15 <b>444.1 (2)</b> 30:16;31:12</p>			
	<b>5</b>			
	<p><b>5 (1)</b> 56:19 <b>50 (2)</b> 6:19;12:8 <b>50s (1)</b> 9:1 <b>519 (1)</b> 31:13</p>			
	<b>6</b>			
	<p><b>60s (1)</b> 9:1 <b>651-539-1023 (2)</b> 43:5;54:8 <b>67-mile (1)</b> 7:10</p>			
	<b>7</b>			
	<p><b>70s (1)</b> 9:2 <b>715 (3)</b> 44:23;45:2;46:7</p>			
	<b>8</b>			
	<p><b>8,700 (1)</b> 6:15 <b>8:00 (2)</b> 37:17;63:4 <b>800 (6)</b> 11:10;12:2,21,21; 13:3,7</p>			
	<b>9</b>			
<b>3</b>				
<b>3 (1)</b>	<p><b>92 (1)</b> 15:15</p>			