## In The Matter Of:

Amendment to Repower the 200 MW Pleasant Valley Large Wind Energy Conversion System in Dodge and Mower Co's.

## Public Information Meeting - 09-1197

August 16, 2022
09-1197 Public Information Meeting - 8-16-22

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| 6 7 8 9 10 11 12 13 14 15 16 16 17 18 19 20 21 22 23 24 | AUGUST 16, 2022 - PUBLIC INFORMATION MEETING - 09-1197 BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION AND DEPARTMENT OF COMMERCE <br> In the Matter of the Application for a Site Permit Amendment to Repower the 200 MW Pleasant Valley Large Wind Energy Conversion System in Dodge and Mower Counties, Minnesota <br> PUC DOCKET NO. E-002/WS-09-1197 <br> Holiday Inn Austin Conference Center 1701 Fourth Avenue Northwest Austin, Minnesota <br> Met, pursuant to Notice, at 6:00 p.m. in the evening on August 16, 2022. | 1 MR. SCOTT EK: Hello. Thanks for coming <br> 2 tonight. We're here for the Pleasant Valley Wind <br> 3 repower project. Xcel Energy applied for a repower 4 of the existing Pleasant Valley Wind facility. <br> August 16th, 2022. My name is Scott Ek. <br> I'm an analyst with the Public Utilities Commission. <br> 7 I suppose I can move this along. We have Rich Davis with the Department of Commerce. They help us with <br> 9 the technical and environmental-type work with <br> 10 projects like this. And Matt Langan with Xcel <br> 11 Energy. And I'll start out the beginning of the <br> 12 presentation. Matt will pick up the details of the <br> 13 project, and I'll just outlay the review process, <br> 14 the Commission review process. Then we'll get to <br> questions and comments you may have at the end of the presentation. <br> 17 So as you know there's an existing <br> facility, the Pleasant Valley Wind. It was issued a <br> permit originally back in 2010. The permit was <br> amended a couple times, once in 2013, once in 2014. <br> 21 But the facility's now been in operation since about <br> 22 November of 2015, I believe. And so just this April <br> 23 Xcel applied for, as I said, an amendment to the <br> 24 site permit, and it's called -- I guess in the <br> 25 industry we call it a repower, and we'll get to why |
|  | Page 2 | Page 4 |
| 1 | I N D Ex | 1 it's called that. |
| 2 | SPEAKER PAGE | 2 But they're repowering the facility to |
| 3 | Scott Ek 3 | 3 improve turbine technology, maximize the energy |
| 4 | Matt Langan | 4 yield, and extend the service life of this facility. |
| 5 | Nathan Runke 15 | 5 Matt will get more into this, but basically it |
| 6 | Randy Swanson 16 | 6 entails -- in the application Xcel's explained it. |
| 7 | Jim Hahn 21 | 7 It entails replacing the nacelle, which is the |
| 8 | Chris Hogg | 8 blades and the mechanical structure on top of all |
| 9 | Jim Hahn 23 | 9100 of the existing turbines. So none of the |
| 10 | Randy Swanson 24 | 10 turbines -- I shouldn't say that. Some of them -- I |
| 11 | Nate Reid | 11 believe it was 14 it's a complete replacement. |
| 12 | Randy Swanson 26 | 12 Others, they'll replace parts, you know, the blades |
| 13 | Kris Houg 29 | 13 or inside the mechanical area on all the 100 |
| 14 | Ron Masching 30 | 14 existing turbines. |
| 15 | Rich Davis 32 | 15 None of the turbine locations will move, |
| 16 | Ron Masching 33 | 16 so everything that is there now and the foundations |
| 17 | Nate Reid 39 | 17 will remain as it is. It's just replacing the |
| 18 | Duwayne Skov 42 | 18 mechanical equipment on each of the turbine |
| 19 | Lavonne Skov 42 | 19 locations. And the upgrade will result in a |
| 20 | Jim Hahn 46 | 20 production capacity increase to 220 megawatts; |
| 21 | Tom Zellmer 46 | 21 however, the point of interconnection -- that's |
| 22 | Jim Hahn 46 | 22 where the facility interjects its power into the |
| 23 24 25 | Randy Swanson 47 | 23 grid -- still will remain at the 200 megawatts that <br> 24 the facility was permitted for. But Matt will get <br> 25 into much more detail than I have. |

1 So for projects like this it's -- as I
said it's really amending the existing permit to reflect Xcel's proposal to do these upgrades. And so the Commission, when it looks at this, you know, we look at the large wind energy conversion systems, and we make sure any changes are done that are compatible with environmental preservation, sustainable development, and the efficient use of resources in a general sense.

Xcel has an application. There's a review copy here. There's electronic copies on our eDockets system. I'll have more information about how to access that as we move on here. That, Xcel goes through, you know, all the categories the Commission must look at and gives us information on potential impacts of the upgrade, measures they would use to mitigate any of those impacts and whatnot. And we consider those -- the Commission considers those when it amends the permit.

So second, the Commission can amend a site permit for a large wind energy conversion system at any time for good cause. And in this case it's a request to amend, and the Commission can place conditions in a permit or modify, in this case, a permit that's already out there.

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1 So this is -- you know, this process, this is really the -- tonight's probably the most important part of the process, is to come out into the community, answer questions, and provide information on what the project's about. And there's a written comment period that follows this meeting until -- I believe it's August 31st where you can write in comments. So tonight, verbal questions and comments, and the written comment are the most important part of this process.

You can see $8 / 16$ and $8 / 17$. So we're at the in-person public information meeting tonight. There is an online one tomorrow. Everything that's discussed tonight will be discussed tomorrow, so it's for those who can't participate in person and want to participate online. But nothing's different about the meetings. It's the same information both nights. But you're welcome to attend both if you choose, and as I said the information -- the written comment period closes August 31st.

Next month -- there isn't a designated date as of yet, but there will be post-meeting filings by the Department that will take into consideration the comments raised tonight. And in 25 the written comment period, Xcel will file

1 additional information as well based on what's been
2 heard. And it's expected in October the Commission
3 would take this up and make amendments to the
4 permit, or they could deny, but they will make a
5 decision on what's been proposed.
6 So that's where we're at. I'll have a
7 few more slides after Matt explains the project, and
8 then as I said we'll head into questions and
9 comments.
MR. MATT LANGAN: Thank you, Scott. Can everyone hear me okay? We don't have a microphone. We feel like it was a cozy enough room maybe so you'd be able to hear us. But just raise your hand if I get too quiet for you.

So I'm Matt Langan. I work with Xcel Energy. I'm part of a project team that has proposed this repower project at Pleasant Valley. That proposal is in those binders behind Rich there in a hard copy, if anybody's interested in looking at them. We brought some maps here tonight. What I'll say is, is that there is a formal, you know, presentation that happens tonight. We do take questions or comments recorded by the reporter here. But certainly if you want to -- we're gonna stick around if you have questions, you know, that, you

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1 know, you wanted to ask on the side and look at a 2 particular area on the map. We'll hang around and 3 be happy to entertain those too, if you didn't want 4 to speak during the more formal portion of this.

Okay. So, Scott, you can go to the next slide, if you don't mind.

So just a little quick bit about Xcel Energy. We have service territory in eight states in the nation, 3.6 million electricity customers, 2 million natural gas customers. We are a leader in wind energy, energy efficiency, carbon reduction, storm restoration, and innovative technology.

Next slide, please.
And so our company has a vision for the future, and that is to reduce carbon emissions amongst our generation fleet. Pleasant Valley Wind Farm is a really important part of that. In 2020 our company was able to reduce carbon emissions by 51 percent in comparison to levels in 20 -- excuse me, 2005. Our goal is by 2030 to reduce those
carbon emissions by 80 percent based off 2005
numbers and by 2050 be 100 percent carbon free.
Next slide, please.
So as part of that progression, we
applied to the Public Utilities Commission for a
repower of four of our existing wind farms in our northern region, three of which are in Minnesota and one of which is the Pleasant Valley Wind Farm. The Commission approved that plan, that proposal, in
5 2020, but there are further approvals that the
6 Commission needs to make before that actually
happens. And so the site permit amendment is one of
8 those, and that's what we're here talking about
9 tonight. We believe there are multiple benefits to
10 this proposal. We believe it's going to save our customers money. We believe that it's going to increase the energy produced and the efficiency with which it's produced. We're going to lengthen the
life of the wind farm so it's in the community operating for an even longer span of time and then improve the technology that's within those wind turbines. Along with that there are additional landowner payments and local government tax payments that are good benefits of the project as well.

You can go to the next slide. Thank you.
So just some basics. As you know the
existing wind farm went into operation in 2015.
There are 100 Vestas -- Vestas is the model -- 100
Vestas V100 models within the project area, and each has a capacity of 2.0 megawatts. With the repowered

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wind farm, the proposal is to build it in 2025 so it's fully operational as repowered by the end of 2025. And at that point the turbines will be -- and we'll get to this in the next couple slides, some of the details around this, but then the turbine models will be a V110, 2.2 megawatts in capacity. The buzz numbers there, V100 means it's a 100 -meter rotor diameter, okay, and we'll show a graphic, what I mean by that. It's a 100 -meter rotor diameter now. When they are repowered at V110s, that will be a 110-meter rotor diameter. So we're increasing the radius by 5 meters, right, 5 meters on either -- on all sides. And then importantly -- I'm sorry, let's go back one.

MR. SCOTT EK: Sorry.
MR. MATT LANGAN: No, that's fine.
This last bullet is an important one. So
as you know the current models have a static light on there to make for safe aviation in the area. What we would intend to install with the repowered wind farm is what's called an aircraft detection lighting system. That means that the lights are off unless an aircraft is approaching the area. Then the lights go on to make for safe navigation. This is an approved FAA lighting system. We've put it on

1 a number of farms. This is pretty standard for wind
2 farms these days, and we've found that folks really
3 appreciate having the lights only on when the
4 aircraft are coming by. And I'm happy to -- when I
5 get done with the presentation if anybody has any
6 more questions about that system, I'm happy to
7 answer them.
8 Scott, you can keep going. Okay. Good.
9 So the construction process is
10 approximately six to eight months in duration. We 1 would intend to start in spring of 2025, ending by winter of '25. There could be some site preparation work in 2024, but it would be minor. The actual installation of the components really wouldn't occur till starting in ' 25 . In order to remove the blades and the hub and install the new components, we'll do so with cranes in the project area. Importantly, and I think especially for this community and this project, we are going to use rubber-tire cranes, where they only travel on public roads and access -and existing access roads to the turbines. There will be no cross-country travel of cranes walking from one turbine to the next across fields.

And then to give you an idea of what the workspace around a turbine looks like, we have

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1 analyzed that it would be a maximum 400 -foot radius 2 in the area immediately surrounding the turbine foundation for us to set our -- to stage our equipment, the construction equipment, to stage the new turbine components, and to stage where the old turbine components come down. So that will all happen within a 400 -foot radius maximum of the turbine foundation. That's a construction footprint, if you will.

Okay. Scott, next one. Thank you.
So just, you know, as we're using the terminology, obviously the blades, those will move from -- you know, instead of 50 meters long, they'll be 55 meters long. The nacelle will either, again, have components in that nacelle replaced or an entirely new nacelle placed on the turbine tower, and then this piece is the hub right here that connects the blades. That will be a replaced component as well, as part of the repower. But with the foundation and the tower, those are going to remain in the same location and will use the same foundation and tower itself. So those won't move or change.

Okay. Scott, next one. Thanks.
I've got some contact information on
here. You know, now is the time when you want to submit -- if you want to submit comments, certainly you can do those on the record, and Scott's got contact information for the state to do so. A handy
5 thing to pick up, if you didn't already, is the copy
of this presentation, right there, where all of this
information is going to be. But we at Xcel really
welcome your questions or concerns, and even after
this process is over, we really invite any comments
or questions or concerns to come in to us and we'll
be happy to answer them. So here's some information
about how to get in touch with us, again either
during this -- the state review process or anytime
after and leading up to and through construction.
I think that's my last slide.
MR. SCOTT EK: Okay.
MR. MATT LANGAN: Thank you.
MR. SCOTT EK: Thanks, Matt.
Yeah, so as Matt was leading into here, I
put this -- I'm going to -- there will be a slide at
the end -- this information will -- I'll leave up at
the end of the presentation. As Matt said there's a
copy of this presentation with all this information,
as well as a notice that was sent out, so you can grab those on the front desk. It has contact

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information, comment deadlines, how to comment, where to send the comments, and so forth.

So what the Commission looks for -- of
course you can comment on anything you like, but what helps the Commission and the Department is to identify any impacts you foresee, you know, with your property or with the project in general, human and environmental impacts or things that should be mitigated or concerns you just question that are out there and then the -- just whether or not the
Commission should approve the requested site permit amendments. That helps the Commission. That said, we will take any comment you have and it's always helpful.

That's the reason for tonight, and so
here just in a few minutes or so, we'll go into the questions and comments for you folks. So if you -I see on the -- when you came in, there were sign-in sheets. Of course you don't have to sign in. It looks like one -- we have one person that actually signed in that wanted to speak. There's other folks that just wanted to be put on the mailing list and whatnot. So what'll happen, I'll ask the person who signed in to speak first, and since there's only a dozen or more of us here, we can go by questions by

1 hand. But make sure -- we want to do it one person
2 at a time 'cause we have a court reporter here that
3 will take that information down, and we'll have a
4 transcript of all the questions and the comments.
So you'll want to state and spell your
first name. If you forget, I'll remind you or the court reporter will remind you. Speak loudly and clearly. And like I said we sometimes limit it to five minutes if there's a lot of folks here, but I think we have plenty of time to get through any questions that might come up. And should it go way long, you can always add yourself to the queue again. But here's the slide I was talking about with the information, and as I said there's information on the front desk when you walked in.

So I guess we'll go to questions and comments. The first person -- the only person that signed up to speak is Mr. Nathan Runke.

MR. NATHAN RUNKE: I can probably talk loud enough from back here. So my name's Nathan Runke. So that's N-A-T-H-A-N, R-U-N-K-E. I'm with the International Union of Operating Engineers Local 49. We're a heavy equipment operator union that represents fourteen and a half thousand members across Minnesota and both Dakotas, 800 of which live

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1 within 50 miles of this project.
I just wanted to speak in support of this project. It creates the work that our members do every day. Xcel has a pretty well proven track record of employing people with family-sustaining wages and giving them the opportunity to either get a career in this industry or continue their career in this industry, so we really appreciate working with a company like them. I'm confident this project will be done in a way that the workers that will work on it will benefit strongly from it. We support the goal of carbon reduction. So any of these wind farms, we'll obviously be out there to work on them. We'd encourage the Commission to keep the local benefits of local union labor potential on a job like this in mind when they're considering it, and we'd urge the Commission to approve the requested site permit amendments. And thank you for the opportunity to speak tonight.

MR. SCOTT EK: Thank you. So I guess we can just now open it up to a show of hands, whoever has a question or a comment.

MR. RANDY SWANSON: I have a question. MR. SCOTT EK: Sure. If you just want to
25 -- if you could just state and spell your name for
the court reporter.
MR. RANDY SWANSON: Okay. Randy Swanson, S-W-A-N-S-O-N. My question is it seems like -- are you doing this for a lot of repair, because you're
only -- you're only increasing it $2 / 10$ ths per
windmill. That seems like that's a lot of work for just $2 / 10$ th's more power out of each one. That, and the other thing is a lot of these have been sitting idle, not even running. I've noticed there's anywhere from three to a half a dozen that haven't run for a couple months, and then they'll start them again. I was wondering, well, they're gonna start working on them, but they weren't. So that's the question there I guess I would have. As far as your carbon reduction, most of that was because you eliminated coal plants.

MR. MATT LANGAN: Can I take that?
MR. SCOTT EK: Yeah.
MR. MATT LANGAN: So thanks for the
comments, plural, I think. Thanks for the comments.
Number one, you're right the -- while
there's a 0.2 megawatt increase, the numbers, the
energy efficiency gained over time is really an
economic win. If you prorate that over the 25 -year
operating life that we're proposing here, it's

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actually substantial with the new technology and the longer blades. It is a true economic benefit even if it seems, you know, incremental per turbine. So -- and that was something that the Public Utilities Commission had to evaluate when they were approving the proposal, was is this worth it? And so it is and we can -- I think we can point -- although not off the top of my head, we can point to some areas of the application where we have, you know, provided
10 those numbers. But you're right. There's an
11 incremental per turbine out of the 100 turbines'
increase there, and -- okay. That was the first comment.

Second comment, you're right. Our
proposal -- and maybe this was the third comment.
Forgive me. But you're right. Our proposal is to
shutter our coal plants -- coal-burning units up at
Sherco -- within the State of Minnesota. And so
19 that makes these type of renewable energy projects
20 all the more important, because energy use is not
21 going down right now. And so we need to -- we need
22 to replace those coal-fired units with renewable
23 energy from projects like this. And so extending
24 the service life of the Pleasant Valley Wind Farm is
25 a priority for us, you know, where we're looking at

1 a wind farm that we believe really does provide
2 benefits to the community. We've been here for the 3 seven years. We like operating here. We hope that
4 we have a good working relationship with folks in
5 the community, and so we want to extend that. We
6 want to extend that operating life and that
7 partnership with the community.
In terms of the individual turbines being
shut down or not working, I'm sorry to say I don't
have the answer for why that might be. You know, I
guess I wouldn't know. I can take a look at that and try to provide some information about why that is. But certainly what we'd like is for our turbines to be operating all the time of course.

MR. RANDY SWANSON: I do have one more part of that as far as the -- I just have one more part of that compared to -- I mean, what it amounts to and stuff, you're backup for these plants and stuff, a lot of people have problems. Why aren't they leaving some of the coal plants, because there's gonna be such a high demand for electricity, especially with this administration. It's impossible to meet those demands. Other countries are saying we might think about it by 2030, and we're trying to make all these things now.

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1 Although the United States uses a lot of 2 electricity, as far as -- I guess what I'm asking is
3 the backup plans that they have right now are jet
4 engines running on natural gas. But natural gas does not have enough BTUs to start them, so they have to start on a jet fuel like a diesel fuel for probably 20 to 30 minutes before they can generate enough heat to switch it to a natural gas. Kind of defeats the purpose of the carbons, because they're getting a lot of carbons out there.

MR. SCOTT EK: Oh, valid points. Valid points. It's just -- and I get your question. It makes a lot of sense to me as well. I question, you know, how -- unfortunately, I am not the decisionmaker. And, you know, I didn't plan these policies out in the future and require what -- you know, tell Xcel what they're expected to do and whatnot. But, no, just as a citizen myself, I scratch my head and go, well, if we're getting rid of these big generating facilities, what's gonna take their place? And if so, you know, I think you're talking about peaker plants that use natural gas, and Xcel turns them on and off, you know, depending on the grid, the load, and the electricity needed.

1 Yeah, you're right. I, you know --
that's just a bigger conversation than we can have
here tonight. You know, we're just talking about
this wind farm and replacing the mechanics and
5 blades on each of the turbines to add to the whole.
So, I mean, the questions you asked are valid, but I
don't know if they can be answered here tonight.
MR. JIM HAHN: My name is Jim Hahn,
H-A-H-N. My comment really was we're going to work
on adding 10 percent of capacity of potential by
adding the bigger blades and better technology, but
ultimately what are we going to gain by this? If we
cannot add that extra 10 percent into the grid, why
do we do it?
MR. MATT LANGAN: So while -- can I
answer?
MR. SCOTT EK: Oh, yeah.
MR. MATT LANGAN: So it's -- it's the
energy efficiency given by, right, the new -- the
new blades and the new components within the nacelle
that gain a greater efficiency. So we're capturing
-- capturing more wind, if you will, right, and
therefore increasing what is currently the
generating output. Even -- even if we are able to
-- we are limited to our maximum contribution at the

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point of interconnect, we are able to get there more efficiently, and so we are actually producing more energy with the new repowered turbines than the existing turbines.
MR. JIM HAHN: So ultimately you'll leave more tower stands idle then 'cause you won't need them?

MR. MATT LANGAN: Chris, would you -- we do have other members of the Xcel project team here, and we would have to state a name and provide an answer. Chris, if you could.

MR. CHRIS HOGG: Chris Hogg, H-O-G-G. So
right now our max output, we're a 200-megawatt
facility. That's with our interconnect, right, so
we can't go over 200 megawatts. We're a 2.0 machine
right now, so we can at the turbine generate
172 megawatts or 200 megawatts, right, collectively.
18 But we lose a lot of the losses in the collection
19 lines. So what the overrun does on the 2.2 -- the 2
20 to the 2.2, it allows us to generate 200 megawatts
21 at our point of interconnect. So we're gonna get
22 there -- so that's about five or six megawatts that
23 we're losing, without looking at the numbers again,
24 from the turbine all the way to our point of
25 interconnect.

MR. CHRIS HOGG: Well, those couple that are standing idle, they have been standing idle for a little while. The December 18th derecho that came through did damage to the blades. We had seven blades get damaged in that storm, and it's taken a while. The blades, they're older. They're harder

Page 24
1 to find. You know, it's 2015, 2014, is when they were produced. So they get harder to find. You gotta get them shipped up here. They come from all over the U.S. They have to be matched weight. They gotta be within so many kilograms of each other. The pitch has got to be the same on them. So we finally got them in. We're doing the last one hopefully on Thursday, and we should have all of them back and running.

MR. RANDY SWANSON: Are they equipping them with the deicing?

MR. CHRIS HOGG: I wish there was
something for deicing.
MR. RANDY SWANSON: Okay.
MR. CHRIS HOGG: Does that kind of get both questions there?

MR. SCOTT EK: Are there any other questions from folks?

Yes, sir. Just, if you could, speak loudly and --

MR. NATE REID: Sure. Sure.
Nate Reid, R-E-I-D. I guess my question's probably for Chris. And Xcel's been really good to work with 4 as opposed to the original construction outfit. How
25 heavy is the crane? And is it gonna -- is it gonna
crush tile when it runs across it? Drain tile.
MR. CHRIS HOGG: I mean, long story short, yeah, I mean, we're gonna crush tile again, but we're gonna stay to the turbine roads. So that access, we're actually gonna have to -- the crane's a little wider than the road in some spots, so if there's tile out there, there's high potential for
it to be impacted. Now, they can't travel that full
crane fully weighted down our turbine roads, so
we'll actually have to break down quite a bit of it
so it becomes an overweight semitrailer, you know,
which is still 80,000 pounds, right? You're moving
down the road or down a turbine road. But we're not
-- as Matt mentioned earlier, we're not going across
the road. It's turbine to turbine on the access
road. Once they get down to whatever's on that set
of access roads, they'll break it down more and then
take it on to the next set and build it at the
tower.
So I've kind of looked at that, and I've
been working a little bit with the project team.
You know, there's -- if there's a main under the
road, it's something where we could possibly do some
cribbing, get a ramp, do cribbing so we can spread
that load out even more. The mains are -- I don't

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want to crush a main. RES was -- RES did a few of those obviously back in the original construction, but there's definitely things we can do to help prevent and truly minimize the impact to the field tile this time.
And then since we're more in charge of
the project as opposed to last time, as the BOT
we'll be able to more handpick our tile company, and
they'll be able to be out there while -- you know,
while we're on construction and do repairs and stuff
right then and there. Long story short, we'll crush
some tile, but we'll be more responsive to fixing
them this time around, as we have full control this time.

MR. RANDY SWANSON: Could I add to that question? I don't want to be hogging everything here, but I think it'd probably the opinion and my opinion is especially that I'm glad Xcel is doing this. But the ones that were doing the construction there, the last group, they're pathetic, and they -what was discouraging to a lot of people was that they put a footprint out saying we're gonna put these windmills here and stuff like that, and then they said but we'll change where you want. Well, everybody -- not everybody, but there's a lot of

1 them that said, yeah, we'd like them in a different spot than what they are. They went by the original footprint no matter what. They didn't give a hoot what we said at the meetings, and basically they were saying they were gonna plank this and stuff, the heavy cranes and things. And I realize what you're using now is gonna be a lot better system as far as cranes.

MR. CHRIS HOGG: Yep.
MR. RANDY SWANSON: What they did as far as cranes, they were out to crush tile. I mean, they damaged millions of dollars of tile.

MR. CHRIS HOGG: I don't disagree with that. Again, we're in better control of the situation this time around.
MR. SCOTT EK: Mr. Swanson.
MR. RANDY SWANSON: Yes.
MR. SCOTT EK: We have this all in transcript. So, you know -- and our permits -- our permits -- no, but really, the Commission -- that's one of the important things to the commissioners. I know that they -- the first thing they have in mind when considering a project or any changes to a project are the concerns of the people, of the 5 landowners. I know -- I mean, one of the

1 commissioners, he's just focused on, you know, local
2 landowners and ensuring that that permit covers, you
3 know, all the concerns that they have. And our
4 permits do require a builder to -- if they damage
5 drain tile, fences, anything for that matter, that
6 it needs to be replaced. And at any time we would
7 expect a landowner, if there's problems working with
8 that developer or construction company, to come to
9 the Commission, and that's when we step in and help
10 take over for that landowner. So it's really important.

It's unfortunate that last time around it sounds like some not so great things may have happened, and I think Xcel's aware of that, it sounds like too. So this time around if this is all approved, hopefully it's a little better. But it is a concern that the commissioners all take to heart.

MR. RANDY SWANSON: In that sense I have sympathy for Xcel, because a lot of situations, there were things they didn't have control over and they got dumped on, is what it amounted to. So that's the main thing there, and they were supposed to last as far as the -- that was the first question I asked. As far as the longevity of these, they were talking 25,30 years. A lot of them were
leaking in the planetaries and everything like this, the reduction for the crops and stuff. But then four or five years, oil running down and stuff this way. So that's what I was hoping. They're putting 5 a lot better equipment in there now than they did 6 before as far as the gearboxes, as far as everything 7 that goes that way.
8 MR. SCOTT EK: Thank you.
9 Yes, sir, if you can just state and spell
10 your name and try to speak loud if you can, please.
MR. KRIS HOUG: My name is Kris Houg, K-R-I-S, H-O-U-G. I actually live over by Glenville in the footprint of the Freeborn Wind Farm that they put up there recently. But anyway to put people's mind at ease, I'm actually with the Local 49 too, so I came from the heavy equipment operator background. And I can tell you that Xcel has been a great entity to work with on these projects. They've provided a lot of local jobs, and you're gonna see a lot less, I guess, travelers in from the southern states and all over. They pick really responsible contractors to do these jobs, and they take care of the landowners.

I'm working with several farms out west
25 right now that Xcel is in charge of, and they've

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1 been absolutely perfect for people to deal with.
And the landowners that I have talked to are 3 absolutely happy with what's going on out there. And so like you guys have dealt with in the past, I've heard horror stories. I just wanted to cheer up the locals a little bit. There's gonna be a lot
better contractors in town working on these.
8 MR. SCOTT EK: Thank you. Yes, sir.
9 MR. RON MASCHING: My name is Ron
10 Masching, R-O-N, M-A-S-C-H-I-N-G. My question is
11 with the weight of these cranes, it doesn't matter
if they're rubber tired or if there on tracks or
whatever. What occurred last year within Waltham
township was the integrity of the gravel roads is
totally destroyed. The actual load that you can put
on a gravel road is far less than 80,000 pounds.
And the width when they get out to the outer edge of
that road, it does not have the depth of gravel, so
the integrity of the road is easily destroyed. And
the simple fix of just adding more gravel to that
road does not improve the integrity of the road that was destroyed.

And my question is as a resident, Mower
24 County was willing to sign off that the roads were 25 fine, and at that time I operated the grader for

1 Waltham Township. The roads were not fine. They did not repair them, and in fact on intersections that they had widened out when they went and removed it, in places they narrowed our roadway at that intersection by 3 feet and the in-slope was totally ignored. That puts the township at a severe liability. If somebody would cut the corner a little too short, it would cause a rollover, because the in-slope is not what it was supposed to be.

My question is, is would it be in the best interest of the township to go out and videotape all these roads in the conditions they are now prior to when this construction starts so we have a reference of what we expect Xcel or the contractors to bring it back to prior to them leaving the area? Last contractors paid Waltham Township -- I believe it was $\$ 78,000$ and said, well, here's the money, you guys just go and fix it. When you have 8 miles of road that the integrity has been totally compromised, $\$ 78,000$, what is the cost to regrade 1 mile of road? It is much greater than what they were -- they were throwing peanuts at us, thinking we would think it was a large sum of money and that was it. We were not allowed to maintain that road for three years while construction went

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on. I would hope that they would allow the township to perform maintenance during the construction period rather than come in after everything was destroyed and try and bring it back to where it was.

MR. MATT LANGAN: Did you want to answer that? I'm happy to also, in terms of road-use agreements.

MR. RICH DAVIS: I was gonna say per the site permit that the Commission would issue for this, there is language in there -- there's a
condition to have a road-use agreement or a development agreement, is what they're called. Sometimes that's generally between the county and the developer, so Xcel in this case. A lot of times townships will give that authority over to the county, like you mentioned with Mower County signing off on stuff. And that's kind of where the responsibility of that lies, is that we have to -we'll receive a copy of that. But at this point I would say you might want to address that.
MR. MATT LANGAN: I think you're answering correctly. So as part of the site permit if we were warranted, there will be a condition that we enter into a road-use or road-development agreement with the townships and county. I know
that those agreements take a while to put together. I also know that, you know, getting a snapshot of the current condition of the road is something that's in the interest of both parties, right? So, yeah, it's often a videotaping of the condition of the road or other measures of the road's integrity before construction starts.

MR. RON MASCHING: So in the investment of having that videotape, there are companies out there that professionally do videotaping and they know the critical areas, of which it is definitely shown in the before video and the after video. Is Xcel willing to accept that they incur the cost of that, or would the township to have to pay for that just to protect what we currently have?

MR. MATT LANGAN: I want to make sure I'm understanding your question correctly because the answer to what I think your question is, is that Xcel Energy would be responsible for any damages caused to the roadways because of construction traffic.

MR. RON MASCHING: Okay. My question is
to make it very clear what damage was done, what the condition of the road was before, and what it is after construction's completed, to pay for that

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videotaping, is that going to be the responsibility of the township or is Xcel going to have funds available to reimburse the township for that, or is Xcel going to have a program? Because it's not just one township that's affected here. The 100 wind generators involve many townships.

MR. MATT LANGAN: Yes.
MR. RON MASCHING: Are they going to
videotape all those, or is it just up to the
townships to stand up and say, hey, we want to
protect what we have worked hard to maintain?
MR. MATT LANGAN: Yeah, understood.
Thanks. And this is such a good question and something that we spend a lot of time on. I will say that it's not me that negotiates the road-use agreement, so I don't know every detail on it. But I will say that it seems reasonable that Xcel Energy would bear the cost of taping the condition of the roads before we use them. That seems reasonable, and if I'm wrong, anybody else on the Xcel project team can tell me I am, or I'll come back and I'll get in touch with you directly to tell you I was wrong. But that seems like a reasonable cost for us to bear, and so we'll do that.

What I will say is, you know, part of

1 that road-use agreement is what roads will be used.
2 Not every single road of course in the township and
3 county is going to be used for construction. That's
4 a big part of the negotiation or the cooperation
5 between the construction company and the local unit
6 of government, whatever it might be, is what are the
7 appropriate roads to use to accomplish construction.
8 So we're not using roads that aren't appropriate in
9 the first place to use.
Go ahead.
MR. RICH DAVIS: I was just going to say I would recommend that you -- that the township bring that up to Mower County so that they can then have that discussion with Xcel when they're working through the road-use agreement, unless the township's gonna represent themselves in that -working through that agreement, because then it would be -- you would want something like that in the agreement itself to specify who's doing the before and the after in handling those kind of things. That would be my recommendation, I guess. That's where it would probably do the most help.

MR. RON MASCHING: What I'm looking at is what took place when the wind farm was originally -the original construction when it was erected. What

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1 I'm looking at is the township did not have a say
2 so. We had to go to Mike Hanson in Mower County,
3 and we had to actually physically drag him out and
4 show him the damage on the roads before he said,
5 okay, well, maybe I shouldn't sign off on this.
Because Sargeant Township to the east of us, one of the roads, like you said, that they used was 320, and that -- a mile of that was in Sargeant Township. A mile of it was in Waltham Township.
And, I mean, it -- that road just got pushed down into the ground. They tried to repair it by putting big 4-inch breaker rock on the road with no concern for the liability that the township would stand if somebody driving down that road tried to drive it at 55 miles an hour, which is the legal speed limit on a gravel road that is not posted. According to state law, it's 55 miles an hour. If somebody loses control of that vehicle and goes in the ditch, I can guarantee you their lawyer is going to name Waltham Township as the responsible party, and we were not allowed to do anything to maintain those roads while the construction was going on.

So what I would like to see changed is that not only does the county take responsibility to sign off, but also the townships have a say in that.

This is all going to be discussed at the township's annual meeting in March prior to when all this gets started.
MR. SCOTT EK: I can add to that. And I'm sorry to hear about the problems you had with 6 the last contractor and whatnot. That said, also
7 I'm not putting any blame. It's too bad that you
8 couldn't have -- someone couldn't have contacted the
9 Commission. You know, I imagine you went to the
contractor, and the contractor is supposed to contact the Commission, and there's supposed to be a chain of -- a chain of command. And if that chain of command breaks down, then we would expect the township to come to the Commission or go to the county. There would be some type of interaction.

But I wanted to -- here's why I point
that out, is in the permit that's existing right
now, this is just an excerpt from Section 7.8, and this won't change. With your comments tonight, it might get even a little better as we go through this process to amend. But, you know, the permittee shall, prior to use of such roads, make satisfactory arrangements with the appropriate state, county, or township government body having jurisdiction over roads to be used for construction of the project for

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maintenance repair of the roads that will be subject to extra wear and tear due to transportation of equipment and project components. The permittee shall notify the Commission of such arrangements upon request to the Commission.

So just saying that, I know Xcel has done
other projects and is aware of this. This is very general language, and you heard me name townships in there. So in this case this road agreement would include the county, the townships, if it was a city. All those players involved would be part of that road agreement, and it would have to be filed. And somewhere in that agreement, Xcel would have to say all of these bodies agree to this and we've come to agreement. If not, Xcel, you need to go back and work with these to make -- until there is agreement or satisfaction, you know, to the Commission and all involved.

So I just wanted to point out as the permit exists, it says that. It should have helped last time. I apologize. Hopefully with your comments and the existing language and Xcel being the developer, it will go better this time.

MR. RON MASCHING: Well, last time was a learning process for everybody, for the farmers,

1 farmland, for the townships, and the roads. It was all a learning process. I just hope that across the board that everybody, all people concerned, will do a much better job in making it so that efficiency of producing electricity isn't, quote, unquote, the focus of the whole thing.

MR. SCOTT EK: Right. Yes
MR. NATE REID: Nate Reid again. I'm wondering what happens if I don't sign my amendment. A little background, I met with a gentleman, a very nice guy and, you know, got the sheet that says, okay, it's gonna be 10 percent more on such and such a date and all this and that and, you know, talked about going from the loyalty payment to the fixed payment. And that's all great too, and I said, well, you know, that sounds great, why don't you just write that into the amendment that it's gonna be 10 percent more based on some, you know, CPI factor from this point forward, and we'll know exactly what it will be. And, well, we can't do that.

So I'm kind of wondering, I don't usually sign contracts that I have to perform on without the other side stating exactly what they're gonna do. It seems like it's a fairly -- and maybe I don't

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understand and that's fine. It seems like a fairly straightforward deal. You know, we're gonna max out a 2.2 , and I think the previous thing says 4400 per megawatt. And, you know, there's -- you know, inflation's been low. It's ratcheting up. So, I mean, it should be fairly easy to spell out exactly what we're gonna get paid. So I'm kind of wondering where do I go from there?

MR. MATT LANGAN: Well, I can -- yeah, I can answer part of that, but I do have one question just so I understand. Do you host a turbine on your land?

MR. NATE REID: Yes.
MR. MATT LANGAN: Okay. All right. So I think -- you know, Xcel would hope to come to an agreement with you. I will say that we do have a land agent representative here tonight that we're happy to speak with you further about that. The site permit itself doesn't get into, you know, payment amounts or anything like that, so that's sort of not the subject of a site permit tonight.

MR. NATE REID: Right.
MR. MATT LANGAN: But I encourage you, if you wouldn't mind, to just stick around, and we 25 could speak with you about that afterwards.
Just like I said I don't want to --

## MR. MATT LANGAN: You bet.

MR. NATE REID: Good fences make good neighbors.

## MR. MATT LANGAN: Yep.

MR. SCOTT EK: And I can just say on the
Commission side of it, the Commission doesn't and
can't get into these individual agreements, how
they're structured and who agrees on what.
Basically, the Commission's just made aware, you
know, if people are signing agreements or are they against agreements, just kind of how they feel about the project being on their property and what -- but not the -- not the details of any of these agreements, they don't consider.

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1 MR. NATE REID: I would say working with Xcel's been very good. I mean, it's -- no
complaints at all. I'm very happy with them.
MR. SCOTT EK: All right. Any other
folks have questions or comments?
Yes, sir, if you could state and spell
your name.
MR. DUWAYNE SKOV: My name is Duwayne
Skov, S-K-O-V. The initial construction of the two windmills on our property, we had more trouble with tile lines than anything I ever done, And it was
about three years before we finally got it
straightened out. Also, I'm retired now, and I live in assisted living place. Certainly the income from
the windmills is a big help paying for it. The
Dexter Township is getting a nice check from the wind tax. The county's getting good wind tax. I appreciate it.

MR. SCOTT EK: Thank you for the comment.
MS. LAVONNE SKOV: And Duwayne was on the
Dexter board, the township board, for 30 years, and
roads is the main thing they worked with. And they
-- he talked the other guys into -- instead of
24 buying gravel, they bought crushed rock, which is
25 bigger but yet not so big that it's gonna break

1 everybody's windshields. And it built up the roads
2 in our township through the years, 'cause each year
3 they would do a certain percent of putting crushed
4 rock on certain gravel roads. Tried to do the worst ones first and then build up to where everybody would get a light cover.
But they found that they saved more money
-- I have a friend here -- that has been -- when the
first people came talking about it, Duwayne was one
of the advisory board. He talked the other farmers into electing certain guys to be on the board, and there were five of them. He was one, and they met with the lawyers. They met with RES, and they made -- or said to them that they would pay for Dexter's lawyer also. Not only were they doing the lawsuits, but they were telling the guys.

And so the word around got that when they first started talking about things, these people didn't even know what we meant by tiling on a farm. They thought we were talking about the stuff you put on walls. So it's really basic. You gotta be sure they know what you want to have them do and that tiling is much different in Texas. They don't do it, and up here they do a lot.

And we had a lot of tiling issues. They

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1 did not follow what he recommended. And our tile lines went a certain direction, and he wanted them to not drive across them and put something the other way. But they didn't pay any attention, and they went down beside or over or whatever, and so we had a lot of problems with them. But it wasn't our local ones that were doing that, and so it was just people that did not understand that you don't do that.

COURT REPORTER: Can I get your name? MS. LAVONNE SKOV: Oh, Lavonne Skov, L-A-V-O-N-N-E, S-K-O-V. It's a long O.

MR. SCOTT EK: And just to kind of answer your concerns, I think as you heard tonight, we touched on both those subjects. And it sounds like that's a bone of contention with folks, and that's exactly what these -- excuse me, these meetings are for, is to get this information on the record so I can put it -- Rich can put it into his post-meeting filings, and I can put it into my briefing papers for the commissioners. And Xcel is here today listening to the concerns. So that's the reason for these meetings.

MS. LAVONNE SKOV: They don't have a -25 the board is not working with them at all anymore.

1 MR. SCOTT EK: I'm sorry?
2 MS. LAVONNE SKOV: The advisory board that RES had is not working with Xcel

MR. SCOTT EK: No, Xcel will be the sole developer.

MS. LAVONNE SKOV: But they are the ones
that have been coming in and doing building things, Xcel.
MR. MATT LANGAN: We will, yes, for Pleasant Valley.

MS. LAVONNE SKOV: For this new one.
MR. MATT LANGAN: For the new one, yes.
MS. LAVONNE SKOV: It's -- it's all of
us, and we're in Mower County.
MR. SCOTT EK: And then, you know, whatever's decided in this -- whatever the
Commission decides -- if they decide to grant the amendments and the project goes, you know, I'd just stress, you know, you'll have contact information for the Commission, for me, for Rich, for -- there will be an individual designated -- a couple individuals designated at Xcel that you can contact that would be in a permit. Reach out if there's problems, because if we don't hear about the problems, then we can't -- we don't know about them

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and can't step in. So it's important that folks let us know so we can interject ourselves into any problems that could be happening.

Any more questions or comments? Yes, sir.
MR. JIM HAHN: Jim Hahn again. Just back on as far as restoration on these tiles, will you be using local tiling companies? Is that the thought, or is Xcel gonna bring in tiling companies of their own?

MR. TOM ZELLMER: I'm trying to think.
What we've done is usually ask operations managers
what they want. Usually, we ask the operations
managers who they have as local tile contractors and
if it's in the system.
MR. JIM HAHN: Comment I still have is
that I know on our chicken farm, one of our main
tile lines went under -- they put a road over the
top of ours, and it crushed that. And we still --
our production records still show that we got about
5 acres that still aren't producing where they were prior to construction. And we're sure not looking
23 forward to more crushing of -- coming up these roads
24 again, these roads in our field that go over the top 25 of our tile lines. And like I say we enjoy our

1 production data that we have. It isn't as good as it was, about 5 acres. It still isn't as good as it was prior to the first road, that road being put in and those cranes coming over the top of them. Just I'm not -- not happy with that yet.

MR. CHRIS HOGG: Yeah, let's discuss that specific issue after the meeting. But again, we'll -- there's a couple good tile companies left in the area still, you know, that we use. I use Dylan now for the smaller repairs. We'll have to look at what company we want to bring in that will commit to this. Ellingson's is another one that comes to mind.

MR. SCOTT EK: Any other questions from folks?

MR. RANDY SWANSON: I would add a comment that maybe a lot of the problems we have is that people in the state or federally or anything, they're so far removed from what is actually taking place out here. They're the ones that we need to educate things. It's just like things on a gravel road. You know, they're coming down 35 W thinking that we -- on a gravel road, we drive one side. The load is made for the crown. The center of the road is made -- that's where the weight can be.

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1 So when you are running something on the edge of the road or something that's that heavy where it takes that much width -- a lot of this tile has mains that are running under the road now. It used to be culverts. A lot of them are running mains and stuff now. They're gonna crush some. So that's -- that's one of the issues, is I think they're not understanding, and they're making a decision to say, oh, just do this, whatever, and they don't have the slightest idea what's going on out here.

MR. MATT LANGAN: Just one question about that. Xcel frequently works with, you know, not only individual landowners for things like tile in the fields, locations where those are, but also county engineers and roadway managers for those type of situations as well. Is that who you would point us to, to have that kind of local knowledge so that we minimize the damage?
MR. RANDY SWANSON: Yeah. What I was saying before is I felt like Xcel is getting the brunt of problems that they never created, and basically it's a lot of our -- a lot of our people in the state, whatever, they're making decisions and saying just do this, and they don't know what's
going on. So they're the ones that we need to communicate with. They're the ones that need to be 3 -- get out here and make a commitment, put your John Henry down here to say I will follow this.

MR. MATT LANGAN: I thank you for those comments. I think it's clear to everybody in the room, you know, there's a story from last time around to be told, a cautionary story, and so that is impressed upon all of us. This frankly is not the first we've heard of it. But it helps to reinforce what we think we have heard about the way it went the first way around, and it's motivating to us to make sure it goes better this time.

MR. SCOTT EK: Any more comments from folks?

All right. Well, we'll convene the meeting then. We'll wrap it up. As Matt said we'll stick around for any comments off the record or questions you have about the project, and like I said if anything comes to mind after tonight, there's a written comment period. Just grab some of the -- a copy of this presentation or the notice on the front desk. It provides all this info, and you can contact any of us if you have questions or have trouble putting a comment in or anything that comes
to mind and we'll help you out. So thanks for coming. Thanks for all the good comments. It's really good stuff to know actually. So thank you.

> (Meeting concluded at 7:21 p.m.)

|  | $\begin{aligned} & 35: 1,15,17,19 ; 38: 9,12, \\ & 13,15,16 ; 40: 16 ; 41: 4 \\ & \text { agreements }(\mathbf{6}) \\ & 32: 7 ; 33: 1 ; 41: 18,21, \\ & 22,25 \\ & \text { agrees (1) } \\ & 41: 19 \\ & \text { ahead (1) } \end{aligned}$ | $\begin{aligned} & \text { 35:7,8;37:23 } \\ & \text { approvals (1) } \\ & 9: 5 \end{aligned}$ | $\begin{gathered} 9: 21 \\ \text { bear }(2) \\ 34: 18,24 \end{gathered}$ | $\begin{array}{\|l} \text { breaks (1) } \\ 37: 13 \\ \text { briefing (1) } \end{array}$ |
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|  |  | 14:11;16:17 | 25:11 | bring (5) |
|  |  |  | beginning (1) | :4;35:1 |
| A |  | 9:4;10:25;28:16 | 3:11 | 46:9;47:11 |
|  |  | approving (1) | behind (1) | brought |
| able (6) | $\begin{gathered} \text { 35:10 } \\ \text { aircraft (3) } \end{gathered}$ | $18: 5$ approximately (1) | (2) | 7:20 |
| $\begin{aligned} & 7: 13 ; 8: 18 ; 21: 24 \\ & 22: 1 ; 26: 8,9 \end{aligned}$ | $10: 21,23 ; 11: 4$ | 11:10 | 16:11;18:2 | $48: 22$ |
| absolutely (3) |  | April (1) | benefits (4) | BTUs (1) |
| $30: 1,3 ; 41: 1$ | allow (3) $23: 3 ; 32: 1 ; 41: 5$ | 3:22 area (9) | 9:9,19;16:15;19:2 | $20: 5$ build (3) |
| accept (1) | $\begin{aligned} & \text { allowed (3) } \\ & 23: 14 ; 31: 24 ; 36: 21 \end{aligned}$ | area (9) $4: 13 ; 8$ | beside (1) 44.5 | build (3) <br> 10:1;25:18;43 |
|  | 23:14;31:24;36:21 <br> allows (1) | $23 ; 11: 17 ; 12: 2 ; 31: 16$ | best (1) | builder (1) |
| 5:13;11:20,21;25:5, | $\begin{gathered} 22: 20 \\ \text { along (2) } \end{gathered}$ | 47:9 | 31:11 | 28:4 |
| 15,17 |  | areas (2) | bet (1) | building (1) |
| accomplish (1) | $\begin{gathered} 3: 7 ; 9: 17 \\ \text { although (2) } \end{gathered}$ | 18:8;33:11 | 41:12 | 45:7 |
| 35:7 |  | around (14) | better (10) | built (1) |
| According (1) | 18:7;20:1always (2) | 7:25;8:2;10:5;11:25; | 21:11;27:7,14;28:16; | 43:1 |
| 36:16 |  | 26:13;27:15;28:12,15; | 29:5;30:7;37:20;38:23; | bullet (1) |
| acres (2) | $\begin{aligned} & 14: 13 ; 15: 12 \\ & \text { amend (3) } \end{aligned}$ | 40:24;41:8;43:17;49:8, | 39:4;49:13 | 10:17 |
| 46:21;47:2 |  | 12,18 | big (5) | butter (1) |
| across (6) | $\begin{aligned} & \text { 5:20,23;37:21 } \\ & \text { amended (1) } \end{aligned}$ | arrangements (2) 37:23:38:4 | $\begin{aligned} & 20: 20 ; 35: 4 ; 36: 12 ; \\ & 42: 15.25 \end{aligned}$ | $\begin{array}{\|c} 23: 6 \\ \text { buying (1) } \end{array}$ |
| $\begin{aligned} & 11: 23 ; 15: 25 ; 25: 1,14 \\ & 39: 2 ; 44: 3 \end{aligned}$ | 3:20 | $\begin{aligned} & \text { 37:23;38:4 } \\ & \text { assisted (1) } \end{aligned}$ | bigger (7) | $\begin{array}{\|c} \text { buying (1) } \\ 42: 24 \end{array}$ |
| actual (2) | $\begin{aligned} & \text { amending (1) } \\ & 5: 2 \end{aligned}$ | 42:14 | 21:2,11;23:1,3,6,7; | buzz (1) |
| $\begin{aligned} & \text { 11:13;30:15 } \\ & \text { actually (11) } \end{aligned}$ |  | attend (1) 6:18 | 42:25 binders (1) | 10:6 |
|  |  | $\begin{gathered} \text { 6:18 } \\ \text { attention (1) } \end{gathered}$ | binders (1) | C |
| $\begin{aligned} & 9: 6 ; 14: 20 ; 18: 1 ; 22: 2 \\ & 25: 5,10 ; 29: 12,15 ; 36: 3 \\ & 47: 19 ; 50: 3 \end{aligned}$ | amendments (4) | $\begin{array}{\|c\|} \hline \text { attention }( \\ 44: 4 \end{array}$ | bit (4) | call (1) |
|  | 7:3;14:12;16:18; | August (3) | 8:7;25:10,21;30:6 |  |
| add (6) | $\begin{gathered} \text { 45:18 } \\ \text { amends (1) } \end{gathered}$ | 3:5;6:7,20 | blade (1) | 3:25 |
| 15:12;21:5,13;26:15; |  | authority (1) | $23: 3$ blades (15) | $\begin{aligned} & \text { called (4) } \\ & 3: 24 ; 4: 1 ; 10: 2 \end{aligned}$ |
| adding (3) | ${ }_{\text {amongst }}$ | available (1) | blades (15) 4 , 12;11:15;12:12, | $\begin{aligned} & 3: 24 ; 4 \\ & 32: 12 \end{aligned}$ |
| $21: 10,11 ; 30: 20$ |  | 34:3 | 18;18:2;21:5,11,20; | came (4) |
| additional (2) | amounted (1) | aviation (1) | $23: 1,6,7,23,24,25$ <br> blame (1) | 14:18;23:22;29:16; |
| 7:1;9:17 | 28:21 amounts (2) | 10:19 <br> aware (3) | $\begin{array}{\|c\|} \text { blame (1) } \\ 37: 7 \end{array}$ | $\begin{gathered} 43: 9 \\ \operatorname{can}(49) \end{gathered}$ |
| address (1) | amounts (2) | aware (3) $28: 14 ; 38: 7 ; 41: 20$ | board (7) | can (49) |
| administration (1)19:22 | $\underset{3: 6}{\text { analyst (1) }}$ |  | 39:3;42:21,21;43:10, | 7:10;8:5;9:20;11:8; |
|  |  | B | 11;44:25;45:2 | 13:3,24;14:4,25;15:12, |
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