

Public Hearing
3/8/2019

Page 1

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

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Burke Wind, LLC Case No: PU-18-302
Burke Wind Transmission Line - Burke & Mountrail
Siting Application

Burke Wind, LLC Case No: PU-18-344
Burke County Wind Energy Center - Burke County
Siting Application

T R A N S C R I P T
OF
P R O C E E D I N G S
Morning Session
March 8, 2019
9:00 a.m.

LOCATION: Memorial Hall
100 Main Street Northwest
Bowbells, North Dakota 58721

REPORTER: KAYLA A. RICHMOND

Public Hearing
3/8/2019

Page 2

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

A P P E A R A N C E S

ADMINISTRATIVE LAW JUDGE - TIMOTHY DAWSON

PUBLIC SERVICE COMMISSION:

Commissioner Julie Fedorchak

Commissioner Brian Kroshus

CASEY FUREY

Crowley Fleck PLLP

100 West Broadway Avenue, Suite 250

Bismarck, North Dakota 58502

701-224-7554

Cfurey@crowleyfleck.com

Attorney for NextEra Energy Resources - Burke Wind, LLC

Wade Mann

Crowley Fleck PLLP

100 West Broadway Avenue, Suite 250

Bismarck, North Dakota 58502

701-224-7554

Wmann@crowleyfleck.com

Attorney for NextEra Energy Resources - Burke Wind, LLC

Public Hearing
3/8/2019

Page 3

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

A P P E A R A N C E S (CONT'D)

BRIAN SCHMIDT
Smith, Porsborg, Schweigert, Armstrong, Moldenberg &
Smith
122 East Broadway Avenue
Bismarck, North Dakota 58501
701-258-0630
Bschmidt@smithporsborg.com
Attorney for Public Service Commission

Public Hearing

3/8/2019

Page 4

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

WITNESS		PAGE
Daryl Hart		
Direct exam - by Ms. Furey		19
Cross exam - by Mr. Schmidt		42
Richard Lampeter		
Direct exam - by Ms. Furey		78
Cross exam - by Mr. Schmidt		92
Kimberly Wells		
Direct exam - by Ms. Furey		104

Public Hearing
3/8/2019

Page 5

1 MR. DAWSON: I am Timothy Dawson,
2 administrative law judge designated by the Office of
3 Administrative Hearings upon the request of the Public
4 Service Commission to serve as hearing officer for this
5 hearing. This is North Dakota Public Service Commission
6 case numbers PU-18-302 and 344.

7 Before we begin, please silence your phones. There
8 should be an attendance sheet going around. Everyone, I
9 would like you to sign it and if you're going to
10 testify, please note that in the appropriate box.

11 This is a hearing on the September 14, 2018
12 application thereafter amended of Burke Wind LLC for a
13 certificate of site compatibility to construct the Burke
14 County Wind Energy Center consisting of up to 76 wind
15 turbine generators and associated facilities with a
16 capacity of up to 200 megawatts in Burke County located
17 approximately 15 miles mainly west of Bowbells, North
18 Dakota. This is also a hearing on the August 9, 2019
19 application of award for certificate of corridor
20 compatibility and route permit for the construction of a
21 345 overhead transmission line and associated
22 facilities. The transmission line project is about 37
23 miles in length and to be constructed from the proposed
24 Burke Wind Energy Center in Burke County to Basin
25 Electric's substation in Mountrail County approximately

Public Hearing
3/8/2019

Page 6

1 four miles east of Tioga. Let the record show that it is
2 March 8, 2019 and a little past 9:00 a.m. at the
3 Memorial Hall in Bowbells, North Dakota. This is the
4 time, date and place set by the notice of filing and
5 notice of hearing issued by the North Dakota Public
6 Service Commission on January 23, 2019. The notice of
7 filing and notice of hearing for this hearing specified
8 the following issues to be considered and determined at
9 this hearing relating to the wind center and the
10 transmission line. Number one, will the location and
11 operation of the proposed facilities produce minimal
12 adverse effects on the environment and upon the welfare
13 of the citizens of North Dakota. Number two, are the
14 proposed facilities compatible with the environmental
15 preservation and efficient use of resources. Number
16 three, will the proposed facility locations minimize
17 adverse human and environment impact while ensuring
18 continuing system reliability and integrity and ensuring
19 that energy needs are met and fulfilled in an orderly
20 and timely fashion.

21 We will now have appearances by the parties. Ms.
22 Furey, if you'd introduce yourself and the people with
23 you and tell me how many witnesses you'll be calling
24 today.

25 MS. FUREY: Good morning, Your Honor and

Public Hearing

3/8/2019

Page 7

1 commissioners. Casey Furey with Crowley Fleck appearing
2 on behalf of Burke Wind, LLC. At the table with me I
3 have my colleague, Wade Mann. Next to Wade Mann is
4 Tracy Davis, senior regulatory attorney with NextEra
5 Energy Resources and to my left I have Ms. Tanya Aman
6 and she is my paralegal. She'll be assisting today with
7 distribution of exhibits.

8 MR. DAWSON: Mr. Schmidt.

9 MR. SCHMIDT: Thank you, Your Honor. Brian
10 Schmidt, special assistant attorney general for the
11 Public Service Commission and then with me is Jerry
12 Lien, utility analyst for the Public Service Commission
13 and we will ask that Mr. Lee be allowed to ask questions
14 today.

15 MR. DAWSON: I'll allow it.

16 MS. FUREY: No objection.

17 MR. DAWSON: By show of hands out in the
18 audience today, is there anyone present who may testify
19 today? Just see a show of hands just so I can plan ahead
20 a little bit. And how many of you are for the wind farm
21 and how many are -- for, let's go with for. Okay. And
22 then against? Okay. Your testimony will be taken after
23 the completion of Aurora's presentation. I encourage you
24 to take that opportunity to tell the commissioners
25 anything you think the commission should know about this

Public Hearing
3/8/2019

Page 8

1 matter. I assure you that what you have to say is
2 important and will be considered by the commission.
3 Everyone, again, please sign in the sign in sheet. If
4 you have any questions about testifying or if you have
5 some document that you want to enter into evidence,
6 including photographs, contact me during the break and
7 we can get those numbered and get prepared for you
8 presentation. It is now time for opening comments by the
9 commissioners. Commissioner Fedorchak.

10 MS. FEDORCHAK: Morning, everybody. It's
11 great to be in Bowbells. This is one of my favorite
12 parts of my job is having an opportunity to get around
13 to all the different corners of North Dakota. We have an
14 amazing state and this is a really cool part of it, so
15 it's great to be up here in Bowbells and looking forward
16 to spending the day here. Even though we pretty much
17 will be inside all day, but, nevertheless, we're here.
18 First I want to mention that our colleague, Randy
19 Christmann is not here. You can see that. He isn't
20 wearing an invisibility cloak. He's actually down in
21 Bismarck at the legislature. We had a couple bills come
22 up for hearing today that were really vital to the
23 agency and so Randy opted to stay back and provide
24 testimony on behalf of the commission to those
25 legislative committees. But he wanted to me to assure

Public Hearing
3/8/2019

Page 9

1 you that he intends to still be active in this case and
2 will listen to the hearing on it's recording in its
3 entirety on his own time so -- and then we do have work
4 sessions after the fact where the conversation continues
5 and he'll be engaged in those, so he's still going to be
6 a part of the decision.

7 Thank you for organizing so neatly just like a
8 wedding. It's like the bride and the groom's side, for
9 and against. Everyone, like there was no crossover. So
10 really you guys did a good job whoever orchestrated
11 that. Just to give up a little bit of perspective, I
12 don't know if a lot of you have been to a hearing from
13 the PSC or wind farm hearing, but just to prepare you
14 for the day. So the first chunk of the day and it'll
15 probably take at least until after lunch, will be the
16 company providing its testimony. We don't have quite
17 enough materials, I don't think, maybe we should have a
18 little bit more to go through, but we'll deal with what
19 we have. Hopefully it'll be enough and they will be
20 going through all the different criteria that the state
21 lays out for companies in order to receive a permit for
22 an energy conversion facility like this. They will
23 spend, you know, it'll probably be four hours or of
24 testimony by the company and cross examination by our
25 attorneys and the commission. And then after that, there

Public Hearing
3/8/2019

Page 10

1 will be an opportunity for the public and other agencies
2 who might be here to provide testimony. And then, again,
3 the same thing happens, the company and the commission
4 gets an opportunity to cross examine everybody who comes
5 up and offers testimony. Our decision is based on the
6 record, so whatever is in the record provided by the
7 company and what we gathered from the public at today's
8 hearing. If it happens outside of the record, it's not
9 that we cannot have it included, but today's record will
10 provide the bulk of what we use to make our decision.
11 And our decision has to be based on and tied to the
12 record. We consult within our process 27 different
13 state, local and federal agencies. The Public Service
14 Commission, we kind of like gather all this information
15 and we receive it and then we decide, we the
16 commissioners, ultimately decide on if the company meets
17 a criteria, but we don't have biologists, we don't have
18 archeologists. We don't have, you know, run-off experts
19 or water quality experts. We don't have that expertise
20 in the commission itself. That's why we rely on the
21 input from outside agencies. They evaluate what the
22 company is saying and offer their input as to whether
23 what they're saying they think is true or whether
24 there's some gaps in what they were saying or they offer
25 their expertise to supplement what the company is

Public Hearing
3/8/2019

Page 11

1 saying. So that's how the process works and then
2 ultimately we decide what gets the most weight and which
3 arguments win the day and there's a back and forth that
4 occurs in that process as well as the company and the
5 agencies and the other people providing hear each
6 other's arguments. There might be some compromises that
7 is reached between them and then additional information
8 provided to us on that. So that's kind of how the
9 process works. It's a very iterative process. It's
10 intended to be flexible and provide a lot of opportunity
11 for addressing the conditions of each and every project
12 as it exists. Our goal is to get to, as you heard the
13 judge say, minimal impact. Those are kind of the
14 keywords. Does the project have minimal impact on the
15 environment and the citizens in our state. And those are
16 the big kind of overarching goals on every siting
17 project that we seek to get to in order to go forward.

18 So with that, we really look forward to your input.
19 This is your opportunity to say how this affects you.
20 You're the citizens. You're the agencies. How -- what do
21 you think about this project? That's the reason why we
22 come to the location of the area so we can hear from the
23 people that are impacted the most and others who are
24 interested in -- perhaps in that area. And so that's why
25 we're here and not at the State Capitol and so thank you

Public Hearing
3/8/2019

Page 12

1 for taking your time today to be here. It's going to be
2 a long day, I can assure you of that, but it's also a
3 very, very productive process. The judge will keep
4 everybody on the straight and narrow. You gotta listen
5 to him and we look forward to hearing from you all
6 during the hearing today. Thank you.

7 MR. DAWSON: Commissioner Kroshus.

8 MR. KROSHUS: Welcome, everyone and thank
9 you for being here. This is a contrast from me
10 yesterday, unfortunately, and I apologize if anyone is
11 actually from New York, great place to visit for me, but
12 as things would turn out, my flight was cancelled and
13 barely made it back to Denver so I'm only just a tish
14 jet lagged but as we were driving up from Kenmare, just
15 north of Kenmare, I made the comment that talk about
16 different ends of the spectrum and this is certainly the
17 end of the spectrum that I prefer to be in. Makes me
18 anxious to your back out to the ranch. It was not -- the
19 conference I was, it was good and we talked a lot about
20 energy resource. One thing I would -- and Julie did an
21 excellent job as always is framing up what the day will
22 look like. One thing I would stress because I talk about
23 it a lot is when we're looking at these cases, we're
24 fully aware that we're making multigenerational
25 decisions and it's not a tenure. It's not a 20 year.

Public Hearing
3/8/2019

Page 13

1 This is a long-term decision. So it's important for
2 people to be heard, to be a part of the process and
3 that's what we go by in terms of public testimony and,
4 of course, we have to follow the law as well. So it's
5 been said before, but our job is to be energy agnostic
6 to make sure things are being done correctly according
7 to the parameters set forth in the law, but we also want
8 to make sure we're not missing anything. So that's,
9 again, where those of you that will testify come into
10 play and it's just incredibly important that you're
11 involved in part of the process, so look forward to
12 hearing from you later and it's going to be a long day,
13 so I'll quit the chattering at this point and look
14 forward to hearing from all of you. Thank you for being
15 here.

16 MR. DAWSON: Are there any preliminary
17 matters especially as to exhibits or motions, Mr.
18 Schmidt, Ms. Furey?

19 MS. FUREY: Yes, Your Honor. Mr. Schmidt
20 and I would like to stipulate to the admission of
21 several exhibits. I'm going to just walk through those
22 initially. On March 6th, I filed an annotated exhibit
23 list and this was in response to some feedback and
24 questions that we had received from PSC staff regarding
25 the filings and so the annotated exhibit list was really

Public Hearing
3/8/2019

Page 14

1 just to provide -- regarding the filings to date. And so
2 the materials that are in the binders before you are all
3 of the various reports, comments and whatnot that are
4 contained in the exhibit list that was submitted and
5 filed on March 6th. So that's exhibits number one
6 through 37. I would note that that exhibit list
7 indicated that exhibits five through 37 would be
8 provided at hearing. Those should be before you. Those
9 are three maps. Exhibit 35 is a map of the wind project
10 boundary. This map is on the display boards here in the
11 room. Exhibit 36 is a map of the transmission line
12 corridor and route. Exhibit 37 is a boundary comparison.
13 This map depicts the original wind project 300 megawatt
14 project boundary as compared to the now amended 200
15 megawatt project. Exhibits one through 34 were all
16 previously filed, so the bulk of the materials that are
17 in exhibits, it isn't anything new although it looks
18 like a lot of additional material. In addition to
19 exhibits one through 37, we do intend to enter several
20 other exhibits and I will walk through those. We have
21 exhibits ranging from 38 to 47. We have those marks at
22 our table. I would -- I'll go through them here in a
23 minute. I would like to stipulate to enter those now and
24 then we will proceed to just distribute those at the
25 time when they come up in hearing unless you prefer that

Public Hearing
3/8/2019

Page 15

1 we distribute them right now.

2 MR. SCHMIDT: Could you just distribute
3 them first and then we'll just go through them and
4 stipulate.

5 MS. FUREY: Okay. That's fine. Exhibits 38
6 through 40, exhibit 38 is the conditional use permit
7 that Burke Wind obtained from Burke County for the wind
8 project. Exhibit 39 is the conditional use permit that
9 Burke Wind obtained from the county regarding at the
10 transmission line and exhibit 40 is the conditional use
11 permit that Burke Wind obtained from Mountrail County
12 for the transmission line. Exhibits 41 and 42 are
13 comments that were filed by Representative Longmire and
14 Senator Russ. I believe they've been uploaded to the PSC
15 docket as of yesterday. Exhibit 43 is the report and CV
16 of Mr. David Hessler that was filed by Mr. Schmidt with
17 the commission yesterday. We had just gone ahead and
18 provided both the CV and the report as one exhibit
19 together as 43. Exhibits 44 through 47 are various
20 correspondence. Exhibit 44 is correspondence that was
21 received last night from North Dakota Game and Fish
22 dated March 7th. I believe this is uploaded to the PSC
23 docket. 45 is correspondence from the U.S. Fish and
24 Wildlife Service dated March 6th. This was also filed in
25 the commission's docket yesterday. Exhibit 46 is

Public Hearing
3/8/2019

Page 16

1 correspondence dated February 15th. It is from Mr. John
2 Di Donato. He is the vice president of Renewable
3 Development with NextEra Energy Resources, LLC and this
4 is correspondence that he sent to Mr. Terry Steinwand
5 with North Dakota Game and Fish. And then last but not
6 least is exhibit 47. This is a March 5th letter sent by
7 Dr. Kimberly Wells with NextEra Energy Resources to
8 North Dakota Game and Fish. So at this time we would
9 like to stipulate to the entry of the exhibits marked
10 one through 47.

11 MR. DAWSON: I do have a question. The
12 exhibits 35 through 37 are these big maps on the --

13 MS. FUREY: You should also have smaller
14 copies in front of you as well.

15 MR. DAWSON: Okay. I just wanted to make
16 sure I have smaller copies.

17 MS. FUREY: Yes. And they're exact
18 replicas of the larger ones.

19 MR. DAWSON: Mr. Schmidt?

20 MR. SCHMIDT: No objection, Your Honor. I
21 will so mark exhibits one through 47 and admit them.

22 MS. FUREY: Thank you, Your Honor. At this
23 time it may be helpful to go through the witnesses that
24 we intend to call today?

25 MR. DAWSON: Yes. You may make any opening

Public Hearing
3/8/2019

Page 17

1 remarks or call a witness.

2 MS. FUREY: We intend to call four
3 witnesses today. The first witness will be at Daryl
4 Hart. He is the director of Renewable Development with
5 NextEra Energy Resources. He will provide a general
6 project overview including discussion regarding the
7 scope of facilities construction and operation of the
8 facilities. Our second witness is Richard Lampeter with
9 Epsilon Associates. You will be discussing sound and
10 shadow flicker. Our third witness is Dr. Kimberly Wells,
11 senior manager or environmental services with NextEra
12 Energy Resources, LLC. She will be discussing the
13 wildlife and environmental studies conducted for the
14 projects as well as agency and tribal consultation and
15 coordination. Our fourth witness is Mr. Clayton Derby
16 with WEST. He's a senior wildlife biologist. He will be
17 providing context and additional discussion regarding
18 the results of the wildlife studies.

19 At this time, Your Honor, we would like to call Mr.
20 Daryl Hart.

21 MR. DAWSON: Mr. Hart, please come to the
22 table. Before you begin, I am required by law to tell
23 you the penalties for perjury in this state. Perjury is
24 a Class C felony, punishable by a fine up to \$10,000 or
25 a term of imprisonment up to five years or both. Do you

Public Hearing
3/8/2019

Page 18

1 understand what perjury is and the penalties for it?

2 MR. HART: I do.

3 MR. DAWSON: Understanding so, do you
4 promise or swear that the testimony that you're about to
5 give will be the truth, the whole truth and nothing but
6 the truth?

7 MR. HART: I do.

8 MR. DAWSON: You may begin. Hold on one
9 second. Commissioner Fedorchak?

10 MS. FEDORCHAK: Sorry, but I have to
11 backtrack just a little bit, Daryl, to the exhibits just
12 so that I'm understanding. The two binders that we have
13 is comprehensive, the latest information that has been
14 filed on all of the studies and everything; correct?

15 MS. FUREY: That's correct, yes. There are
16 some studies that have been omitted because they were
17 entirely focused on the 300 megawatt project. Some of
18 that material was still applicable to this project. In
19 some instances there were either completely new reports
20 that were submitted just to really focus in on the 200
21 megawatt project or there were supplemental addendums to
22 explain how the information contained within the 300
23 megawatt project now applies to the 200 megawatt
24 project. So before you, in addition to what is contained
25 in the binders, is the most current information that we

Public Hearing
3/8/2019

Page 19

1 have and all the reports that are in the binders have
2 previously been uploaded to the PSC docket. All of the
3 reports, in fact, were submitted by the commission's 30
4 days pre hearing deadline.

5 MS. FEDORCHAK: Okay. And then so I could
6 effectively, except for the notes I've written and all
7 the other stuff, I could effectively ignore everything
8 else that's been filed and these two binders are
9 comprehensive of everything, the entire application?

10 MS. FUREY: Yes, that we submitted. That
11 is correct.

12 MR. DAWSON: You may continue.

13 BY MS. FUREY DIRECT EXAMINATION

14 Q. Please state your name, by whom you are employed
15 and your business address?

16 **A. My name is Daryl Hart. I'm employed by NextEra**
17 **Energy Resources or NextEra. My business address is 700**
18 **Universe Boulevard, Juno Beach, Florida 33408.**

19 Q. What is your position with NextEra?

20 **A. I'm the Director, Renewable Business Development**
21 **for NextEra. Burke Wind, LLC is an indirect,**
22 **wholly-owned subsidiary of NextEra Energy Resources.**
23 **NextEra is the largest generator of wind-powered**
24 **electricity in North America with over 13,520 megawatts**
25 **of capacity in 19 states and Canada. In North Dakota**

1 through its affiliates, NextEra owns or operates 14 wind
2 generation facilities with approximately 1,250 megawatts
3 of wind generation.

4 Q. What is your educational background?

5 A. I received a Masters of Science in finance from
6 Penn State University in 2015, a Masters of Business
7 Administration from Auburn University in 2003, a
8 Bachelor of Science in Electrical Engineering from
9 Worcester Polytechnic Institute and I'm also a certified
10 Project Management Professional since 2010.

11 Q. What is your professional experience?

12 A. I served over 10 years as an officer in the
13 United States Air Force. Since being honorably
14 discharged as a Major in the Air Force, I spent the last
15 11 years at NextEra in the various roles including wind
16 farm design, utility distribution project management and
17 renewable energy business development. I have developed
18 or overseen the development of wind energy projects in
19 eight states and the most recent wind energy center
20 declaring commercial operations on December 23, 2018.

21 Q. Thank you. And one point of clarification,
22 Commissioner Fedorchak, the complete materials are in
23 the exhibits binders with the exception of the amended
24 wind project application and then the transmission line
25 application, they're just placeholders for those

1 documents.

2 Mr. Hart, are you familiar with the contents of
3 Burke Wind's amended application for certificate of site
4 compatibility for the Burke County Wind Energy Center
5 which is marked as exhibit number four before you and
6 the consolidated application for a certificate of
7 corridor compatibility and route permit for 345 kV
8 transmission line, which is marked as exhibit number one
9 also before you?

10 **A. Yes, I am familiar with the contents of the**
11 **applications.**

12 Q. Do these applications accurately describe the
13 projects?

14 **A. Yeah, along with the supplemental and supporting**
15 **information we filed with the commission board.**

16 Q. Please describe the Burke Wind Project and its
17 general location?

18 **A. The Burke Wind Project is a planned wind**
19 **generation project with a nameplate capacity of up to**
20 **200 megawatts proposed to be located in Burke County in**
21 **northwestern North Dakota, approximately 15 miles west**
22 **of Bowbells. The project area is primarily rural and**
23 **agricultural and encompasses 22,933 acres. The wind**
24 **project consists of up to a maximum of 76 wind turbines**
25 **and comprised of up to 68 GE, 2.72 megawatt wind**

1 turbines and up to eight GE or General Electric, 1.715
2 megawatt wind turbines. The eight GE 1.715 megawatt
3 turbines are 2015 vintage safe harbor turbines that
4 qualify for 100 percent of the federal production tax
5 credits. In addition, five alternate turbine locations
6 and one alternate MET tower location have been included
7 in the project layout to provide sighting flexibility.
8 The GE 2.72 megawatt wind turbines have a 295-foot hub
9 height and will measure 485.5 feet from the base of the
10 tower to the tip of the upright blade. The GE 1.715
11 megawatt wind turbines will have a 262-foot hub height
12 and will measure 431.5 feet from the base of the tower
13 to the tip of the upright blade. The permanent wind
14 project structures will occupy up to 65.7 acres during
15 operation or less than one percent of the total
16 participating land. Each turbine has a permanent impact
17 of approximately 0.06 acres and Dr. Wells will discuss
18 total impacts further in her testimony.

19 Additional facilities associated with the wind
20 project including access roads, underground electrical
21 collection systems, one collection substation, one
22 operation and maintenance building, one permanent
23 meteorological evaluation tower, one temporary power
24 performance meteorological evaluation tower, a
25 construction laydown yard and a batch plant.

Public Hearing
3/8/2019

Page 23

1 Q. Burke Wind initially filed an application for a
2 300 megawatt wind energy facility, can you please
3 describe why the wind project application was
4 subsequently amended?

5 A. Yes. The wind project originally proposed was up
6 to 300 megawatts. The wind project was recently reduced
7 in size from 300 to 200 megawatts. This has resulted in
8 a significantly smaller project area and the elimination
9 of 38 wind turbines. The original 300 megawatt project
10 area encompassed 46,515 acres and the amended 200
11 megawatt project encompasses 22,933 acres; a reduction
12 of 23,582 acres. The main drivers of the wind project's
13 size reduction included an effort to address
14 environmental concerns with the project's original
15 proximity to the Lostwood National Wildlife Refuge or
16 Lostwood and feedback from landowners and townships. The
17 wind project was originally located one mile from the
18 nearest turbine to Lostwood. With the reduction to 200
19 megawatts, the nearest turbine to Lostwood is now 7.4
20 miles.

21 Q. Please turn to exhibit number 37. Does this map
22 accurately depict the original -- this exhibit, it's
23 going to be one of those separate maps and yes, this is
24 also depicted on the larger maps here in the room. Does
25 exhibit number 37 accurately depict the original 300

1 megawatt project boundary as compared to the currently
2 amended 200 megawatt project boundary?

3 **A. Yes. This exhibit accurately depicts the updated**
4 **200 megawatt project boundary.**

5 Q. Burke Wind filed an addendum to the amended
6 application which is marked as exhibit number five. Can
7 you please explain the purpose of this addendum?

8 **A. After the amended application was filed, we**
9 **refined the design and the layout of the project in**
10 **response to landowner feedback and additional**
11 **engineering. Minor changes to the wind project included**
12 **the elimination of two junction boxes, changes to the**
13 **collection corridor width and minor changes to access**
14 **roads and crane paths. The purpose of the addendum is**
15 **just to explain these adjustments and to provide the**
16 **commission with the most current assessment of impacts**
17 **from the wind project. The most significant adjustment**
18 **described in the addendum is the widening of the**
19 **collection corridors from 50 to 150 feet in order to**
20 **provide flexibility during the construction. While**
21 **collection corridors have increased in width,**
22 **disturbance is anticipated to remain it 50 feet.**

23 Q. Is the map that is included within exhibit five
24 which is the addendum, is that the final project map for
25 the Wind Project?

1 **A. Yes. Exhibit five is the final project map book**
2 **for the wind project.**

3 Q. Did the wind project addendum which is marked as
4 exhibit five change the project boundary?

5 **A. No. The adjustments described in the addendum**
6 **changed only minor aspects of the site plan but had no**
7 **impact to the wind project boundary as depicted in the**
8 **amended application.**

9 Q. Can the wind project boundary be further
10 reduced?

11 **A. Based on the feedback received on previous**
12 **projects, we proactively evaluated the project boundary**
13 **and reduced it according to the extent feasible to**
14 **accommodate setbacks, participating landowners and to**
15 **maintain design flexibility.**

16 Q. Please describe the associated Burke
17 transmission line project and its general location?

18 **A. In addition to the wind project, Burke Wind is**
19 **also seeking a certificate of corridor compatibility and**
20 **route permit for the associated transmission line**
21 **located in Burke and Mountrail counties. The**
22 **transmission project is approximately 37 miles-long 345**
23 **kilovolts overhead transmission line with a 150-foot to**
24 **200-foot corridor. The transmission project corridor is**
25 **also primarily rural and agriculture and encompasses 729**

1 acres. The transmission project will convey 200
2 megawatts from the 76 turbines to the interconnection
3 point at the existing Basin Electric Power Cooperative's
4 345 KV tande substation in Mountrail County.

5 The transmission project will be constructed using
6 steel monopole structures. The average height of the
7 single pole structure is 130 feet and it will range from
8 80 to 160 feet depending on final engineering design.
9 Each steel monopole structure will be directly embedded
10 into the ground with an overall foundation diameter of
11 approximately six feet of embedded land of approximately
12 15-20 feet. The pole locations will be placed 800 feet
13 apart depending on site specific considerations, but
14 depending on -- or ranging from 400 feet to 1200 feet
15 guide structures will be required at 48 locations with
16 between four to eight guys wired required per structure.

17 Permanent impacts from the transmission project
18 will range from point 02 to point five acres dependent
19 on the monopole being a direct embedded pole for a drill
20 pier foundation. Pole locations comprise about 40 square
21 feet of permanent impacts per monopole structure for
22 directly bedded pole installations and 78 square feet of
23 permanent impacts per monopole structure for drilled
24 pier foundations.

25 Q. What is the need for the project?

1 A. Burke Wind has entered into a 200 megawatt 30
2 year power purchase agreement with Basin Electric for
3 the full output of the wind project to support the power
4 needs in the Bakken.

5 Q. How did Burke Wind select the location for the
6 projects?

7 A. In evaluating potential sites for wind
8 facilities, we consider a number of factors, including,
9 the wind resources available, the ability to efficiently
10 and reliably interconnect the facility to the bulk
11 transmission system, proximity to our customer,
12 community support and the ability to minimize any
13 impacts from the project. When Burke Wind decided to
14 pursue the development efforts in Burke County, it
15 coordinated with a variety of community leaders and
16 government officials. As Dr. Wells will testify, the
17 project area was also selected considering the
18 commission's siting criteria.

19 Q. What are the project's estimated costs?

20 A. The wind project's estimated costs are 270
21 million dollars and the transmission project is
22 estimated to cost 19 million dollars.

23 Q. Please describe the project's interconnection
24 arrangements?

25 A. The interconnection of the projects will occur

1 within Basin Electric's transmission system. In
2 particular, the projects generated power will
3 interconnect to the electrical grid via the existing 345
4 kV tande substation. The project is currently being
5 studied under the Southwest Power Pool's, also known as
6 SPP, Definitive Interconnection System Impact Studies.
7 This consists of a single SPP interconnection request
8 for 200 megawatts into Basin Electric's tande
9 substation. Burke Wind expects to execute the generator
10 interconnection agreement with SPP by July 31, 2019.

11 Q. Please describe the wind project's electrical
12 collection system and project substation?

13 A. The power from the wind turbines will be run
14 through an underground to 34.5 kV collection system
15 consisting of various sized cables. Collection lines
16 will be buried 48 inches deep and will not affect
17 farming operations or other surface uses of the land
18 during the project operations. All of the collection
19 system tables will terminate at the proposed project
20 substation. The project substation will also include
21 power transformers to step up the voltage from 34.5 kV
22 to 345 kV.

23 Q. If the commission issues the requested
24 certificates, what are Burke Wind's plans for the
25 projects?

Public Hearing
3/8/2019

Page 29

1 A. Burke Wind will construct, own and operate the
2 wind and transmission line projects. Burke Wind
3 currently proposes to construct the projects in 2019 and
4 have planned operations by December, 2019.

5 Q. Can you please provide a brief overview of the
6 project's construction process?

7 A. Once the commission approves the projects,
8 several activities must be completed prior to the
9 proposed commercial operation date. The majority of the
10 activity relate to equipment ordering lead time,
11 construction of the facility, pre-construction,
12 construction and post construction activities for the
13 proposed projects will likely include ordering of all
14 necessary components including turbine towers, the
15 cells, hubs, blades and transformers, completing the
16 construction surveys, construction of the access roads
17 underground collection lines and the project substation,
18 installing turbine tower foundations and underground and
19 above-ground junction boxes, placing and erecting the
20 wind turbines, delivery, assembly and installing of
21 transmission pole structures, acceptance testing and the
22 commencing of commercial operations.

23 Construction is expected to begin or scheduled to
24 begin as early as May, 2019 subject to road
25 restrictions, weather and permit. Burke Wind proposes to

1 complete construction within approximately six months in
2 order to place the wind project in commercial operations
3 by December, 2019

4 Q. How will Burke Wind handle topsoil removal
5 during construction?

6 A. Pursuant to the commission's certifications
7 relating to order provisions mark as exhibit three and
8 six, Burke Wind will comply to the commission's
9 requirements regarding topsoil removal and replacement.

10 Q. What roads are necessary for the construction
11 and operation of the projects?

12 A. Permanent access roads will be typically 16
13 feet, will have an aggregate surface as cover and will
14 be adequate to support the size and weight of the
15 maintenance vehicles.

16 Temporary construction turbine access roads will be
17 typically up to 50 feet wide and adjacent to the turbine
18 towers allowing access to the towers during and after
19 construction. During the construction phase, several
20 types of construction vehicles will travel to and from
21 the site as well as private vehicles used by
22 construction personnel. Burke Wind estimates about 600
23 additional trips per day in the area during the peak
24 construction periods when the majority of the road,
25 foundation, and turbine tower assembly are taking place.

1 At the completion of each construction phase, this
2 equipment will be removed from the site and
3 significantly reduce in number.

4 No temporary permanent access roads will be built
5 to construct or maintain the transmission project. The
6 project route is adjacent to existing public roads or
7 section lines and can be assessed with minimal off-road
8 work.

9 Q. What is the process for landowner coordination
10 if a landowner has any concerns?

11 A. Landowners with concerns may contact the
12 construction manager during construction and the
13 operations and maintenance or O&M manager post
14 construction. Prior to construction, all landowners
15 within the project boundary will receive mailers that
16 will include the construction manager's contact
17 information. We will schedule a landowner dinner prior
18 to construction for all participating and
19 nonparticipating landowners within the project boundary
20 to provide construction update and introduce the
21 construction team. During construction, a mailer will be
22 sent out containing the O&M manager's contact
23 information.

24 Additionally, post-construction reclamation
25 concerns may be directed to the projects O&M manager.

Public Hearing
3/8/2019

Page 32

1 Q. What is the land and easement acquisition
2 status?

3 A. We have one remaining land easement to obtain.
4 Per correspondence in exhibit 24 the North Dakota
5 Department of Trust Lands will execute their easement
6 agreement upon receipt of the commission's final order.

7 Q. How many residences are located within the wind
8 project boundary?

9 A. There are seven occupied residences within the
10 wind projects boundary. Six of those residences are
11 participating and one non-participating residence.

12 Q. What setbacks will be utilized for the wind
13 project?

14 A. Burke Wind has complied with the siting criteria
15 of commission, Burke County and with NextEra's internal
16 standards and best practices. Burke Wind has applied the
17 more restrictive of these standards. Table 4-1 on pages
18 33 and 34 of the amended wind project application which
19 is exhibit four, outlines the setbacks that we applied
20 to the project. The project complies with or exceeds the
21 commission's wind facility setback requirements.

22 Additionally, from the nearest participating
23 resident to a turbine is 2,714 feet and the distance
24 from the nearest nonparticipating residents to a turbine
25 is 2,734 feet.

1 Q. How are setbacks measured for the wind project?

2 A. An American Land Title Association survey or
3 ALTA was conducted for the projects. This survey
4 identified project lines, road rights-of-way and utility
5 rights-of-way. A desktop analysis was performed using
6 the ALTA survey to ensure the turbines and other
7 infrastructure met the most stringent setbacks provided
8 by the commission, Burke County and NextEra internal
9 setbacks. For setbacks involving residences, schools and
10 places of business, the measurement was taken from the
11 approximate center point of the building. For setbacks
12 from property lines, section lines and county lines, the
13 measurement was taken from the proposed center point of
14 the turbine to the surveyed property line, section line
15 or county line.

16 Wind project setbacks were measured in the field
17 during micro-siting and during desktop review to verify
18 all setbacks. Survey grade field data was utilized to
19 verify compliance with setback requirements.

20 Transmission line setbacks were measured through
21 desktop analysis. Desktop imagery was reviewed to
22 identify all potential residences, schools or places of
23 business.

24 Q. Are the wind project setbacks sufficient to
25 address noise and shadow flicker at occupied residences?

1 **A. Yes, the wind project complies with the more**
2 **restrictive on the local and state regulations. Mr.**
3 **Lampeter will discuss noise and shadow flicker modeling**
4 **results in more detail during his testimony.**

5 Q. The transmission line application identifies one
6 residence located within 500 feet of the transmission
7 line route which is designated as a commission avoidance
8 area. Can you please identify the location of this
9 landowner?

10 **A. Yes. This residence is located in the**
11 **transmission lines final map book, exhibit two, page 14**
12 **of 14.**

13 MS. FEDORCHAK: Can you hold on while we
14 get that and say again, which one is this?

15 **A. Exhibit two.**

16 MS. FEDORCHAK: Is that the big one that
17 we've got?

18 Q. That would be volume one. It will be the last of
19 that map set.

20 MS. FEDORCHAK: What is that supposed to
21 be showing?

22 Q. That's identifying the one residence that's
23 located about 500 feet of the line. Has a waiver been
24 obtained from this landowner?

25 **A. Yes. The waiver was filed as exhibit 20.**

Public Hearing
3/8/2019

Page 35

1 Q. What is the status of local permitting? And
2 would you like us to just pause for a minute while you
3 review those maps, commissioners? And then just to
4 reiterate, a waiver for that landowner was filed with
5 the commission previously and was marked as exhibit 20,
6 which would also be in volume one.

7 MR. DAWSON: You may continue.

8 Q. Thank you. What is the status of local
9 permitting?

10 **A. Burke Wind obtained a conditional use permit**
11 **from Burke County on September 4, 2018 for the wind and**
12 **transmission projects. It has also obtained a**
13 **conditional use permit for Mountrail County planning and**
14 **zoning commission for the transmission project on**
15 **October 22, 2018. Remaining local agreements include**
16 **Burke County building and construction permits, road use**
17 **and utility crossing agreements.**

18 Q. Exhibit numbers 38, 39 and 40 are before you.
19 Are these the reference conditional use permits from
20 Burke and Mountrail counties for the projects?

21 **A. Yes, they are.**

22 Q. Has Burke Wind studied whether there are any
23 possible effects of the wind project on microwave beam
24 pass, telecommunications and weather radar facilities?
25 Those exhibits were entered at the beginning of -- we

1 are on 35.

2 A. Gotcha. Sorry. Yes. Existing telephone and fiber
3 optic cables within the project area will be located in
4 the field by the respective utility companies prior to
5 construction and to ensure these impacts to telephone
6 and fiber optic cables will be avoided.

7 We have received a response from the National
8 Telecommunications and Information Administration on
9 April 18, 2017 stating no harmful interference.
10 Anticipated.

11 Burke Wind also completed a telecommunication study
12 to identify all published Federal Communications
13 Commission microwave telecommunication systems in the
14 proximity of the project area. No impacts to these
15 systems are anticipated from the project turbines.

16 Q. Will the wind project comply with Federal
17 Aviation Administration or FAA requirements?

18 A. Yes. The wind turbines and the MET tower will
19 have lighting and markings that comply with the FAA
20 requirements. The FFA's review included evaluation of
21 any potential interference with air traffic. Burke Wind
22 has received the FAA determinations of no hazard for all
23 alternate project locations. Burke Wind is pursuing the
24 FAA determinations of no hazard on the permanent MET,
25 alternate permanent MET location and the temporary MET

Public Hearing
3/8/2019

Page 37

1 locations with expected approval by May 31, 2019.

2 Q. How does Burke Wind intend to comply with the
3 Commission's regulations governing installation of a
4 lighting-mitigation system on the wind project?

5 A. Pursuant to the commission's regulations, Burke
6 Wind will install an FAA-approved advanced lighting
7 detection system, ADLS. We are pursuing the ADLS system
8 with the FAA and we expect to have FAA approval by June,
9 2019. The ADLS system will be operational at the time of
10 project COD.

11 Q. Has Burke Wind coordinated with local responders
12 regarding emergency preparedness?

13 A. We have initiated conversations with the county,
14 but the project's EPC, engineering procurement and
15 construction consultant, Blattner Energy, will
16 coordinate the emergency plan during construction.
17 During operations, the operations and maintenance
18 manager will continue coordination with local emergency
19 responders.

20 Q. What are Burke Wind's plans regarding
21 decommissioning of the wind project?

22 A. Burke Wind will develop a decommissioning plan
23 and provide financial assurance in accordance with the
24 commission's rules and regulations. Additionally, Burke
25 Wind has a contractual obligation to the landowners to

1 remove the wind facilities, including foundations to a
2 depth four feet below ground when the wind easement
3 expires and to restore the area to the same physical
4 condition that existed immediately before the
5 construction of the turbines.

6 Q. Has Burke Wind analyzed the potential economic
7 benefits of the projects to the region?

8 A. Yes. The proposed projects will have positive
9 economic impacts for the local population, including
10 lease and royalty payments for participating landowners,
11 new employment and property and sales tax revenue. Burke
12 Wind estimates that the projects will provide
13 approximately 28 million dollars in tax revenue to Burke
14 and Mountrail counties over 30 years. In addition, the
15 projects will create approximately 250 to 300
16 construction jobs at the peak of construction activities
17 and nine to 12 permanent, full-time operation and
18 maintenance jobs. Burke Wind will execute a contract
19 with Blattner Energy to construct the projects. Blattner
20 will hire local skilled and non-skilled labor, first
21 from Burke and Mountrail Counties and then expand it in
22 North Dakota. Additional goods and services will be
23 sourced locally to the best extent possible.

24 The projects will also provide approximately 34
25 million dollars in payments to participating land owners

1 over the 30 years, which will not only benefit those
2 land owners, but also the local economy as that money is
3 reinvested in local goods and services.

4 In your opinion, has Burke Wind maximized the
5 benefits that result from the adoption of various
6 practices -- excuse me -- the adoption of various
7 practices and policies contained within the commission's
8 policy criteria?

9 A. Yes, as demonstrated through with my testimony
10 today.

11 Q. What outreach to the public and with local
12 political subdivisions has been completed by Burke Wind?

13 A. Burke Wind has been in contact with the public,
14 land owners and agencies throughout the planning stages
15 of the project. We opened a local office in Bowbells in
16 April 2017 to better coordinate with local officials,
17 landowners, and just general inquiries about the
18 project. Burke Wind held community open houses on March
19 9, 2017 and June 15, 2017. Landowner events were held in
20 March, 2017, June, 2017, June, 2018 and most recently
21 February 21, 2019 to provide to provide project updates.
22 During the project developments, Burke Wind worked
23 closely with Burke and Mountrail County officials and
24 other stakeholders to address feedback and concerns and
25 to ensure the project were meeting local requirements.

Public Hearing
3/8/2019

Page 40

1 Throughout 2017 to 2018, Burke Wind met with the
2 counties on a monthly basis to discuss the projects. In
3 addition, from 2018 to September 2018 Burke Wind
4 appeared six times before the Burke County Planning and
5 Zoning Commission and/or the Burke County Commission and
6 two times before the Mountrail County Planning and
7 Zoning Board at public meetings and hearings. Burke Wind
8 also met with landowners in and around the project area
9 on various occasions and has worked with landowners to
10 avoid or minimize impacts on their property to the
11 extent practicable.

12 Q. Before you are what are marked as exhibits 41
13 and 42. Can you please describe these documents?

14 A. Yes. Want me to --

15 Q. Yes.

16 A. Exhibit 41 is a letter of support from
17 Representative Longmuir. Exhibit 42 is a letter of
18 support from Senator Rust.

19 Q. Thank you. How has Burke Wind demonstrated its
20 commitment to being involved with the local community?

21 A. Burke Wind has been been actively contributing
22 to the local community including providing donations to
23 the following community organizations. So starting in
24 2017 the Bowbells Volunteer Fire Department and
25 Ambulance Service Donation, Burke County Fair

Public Hearing
3/8/2019

Page 41

1 Sponsorship, City of Bowbells public Pool donation,
2 North Dakota State Fair Sponsorship, the NDSU Extension
3 Dakota Cattle Conference Sponsorship and the CHS Harvest
4 for Hunger and that was 2017 and 2018. Following up in
5 2018, Burke County Boys and Girls Club basketball teams,
6 Burke County Extension Office Weather Station
7 Sponsorship, Burke Central School Post Prom Committee.
8 That's the keeping kids safe after prom program. The
9 Burke County School District Kid Wind Sponsorship, Burke
10 County Fair Kids Rodeo Sponsorship, the Powers Lake
11 Public Schools Football Field Lights donation and the
12 Kenmare Public School District number 28 Book Fair.

13 Q. Thank you. Do you have any closing remarks?

14 A. Yes. I want to express our appreciation to the
15 commission and staff for their time and effort on the
16 projects. I am happy to answer any questions that the
17 commission may have. Thank you.

18 MR. DAWSON: Mr. Schmidt, do you wish to
19 cross examine this witness?

20 MR. SCHMIDT: Yes, Your Honor. Thank you.

21 BY MR. SCHMIDT CROSS EXAMINATION

22 Q. Good morning, Mr. Hart.

23 A. Good morning.

24 Q. Your direct testimony you indicated that Burke
25 Wind LLC is a wholly-owned indirect subsidiary of

Public Hearing
3/8/2019

Page 42

1 NextEra Energy Resources LLC; is that correct?

2 **A. That is correct.**

3 Q. So am I correct in assuming that this means
4 Burke Wind is owned by a direct subsidiary of NextEra?

5 **A. Yes. The project is owned by NextEra through
6 various entities.**

7 Q. So which entity directly owns Burke Wind, LLC?

8 **A. We can share that after -- after the hearing, we
9 could share the relationship between NextEra and the
10 LLC.**

11 Q. I guess my question is who is directly
12 responsible for this project?

13 **A. NextEra Energy Resources is.**

14 Q. So if someone needs to contact the owner of this
15 project for some reason, they should contact NextEra?

16 **A. They should contact first the O and M manager
17 onsite and then -- and then they can communicate up to
18 the organization.**

19 Q. But in any event, NextEra is ultimately
20 responsible for this project?

21 **A. That is correct.**

22 Q. Just so we're clear, there's two separate
23 applications that are at issue today, right?

24 **A. Yes, sir.**

25 Q. One for a transmission line and one for the wind

Public Hearing
3/8/2019

Page 43

1 project, correct?

2 **A. Yes, sir.**

3 Q. Are these two applications dependent upon each
4 other?

5 **A. Yes, they are.**

6 Q. So if the wind farm for some reason one way or
7 another was denied, there'd be no reason to seek
8 approval for the transmission line?

9 **A. That is correct, sir.**

10 Q. And, likewise, if the transmission line wasn't
11 approved, there'd be no reason to approve the wind farm?

12 **A. That is also correct, sir.**

13 Q. You indicated that this project will tie into
14 the existing tande substation; is that correct?

15 **A. Yes, sir.**

16 Q. And the tande substation is owned by the Basin
17 Electric Power Cooperative, correct?

18 **A. That is correct.**

19 Q. Is this project being developed at Basin's
20 request?

21 **A. They are the customer of the power being
22 generated from the project.**

23 Q. You indicated that NextEra is requesting
24 interconnection service with SPP, correct?

25 **A. That is correct.**

Public Hearing
3/8/2019

Page 44

1 Q. What type of interconnections service are they
2 requesting, is it SPP or Nerus?

3 **A. Nerus.**

4 Q. Do you want to open up the amended application,
5 which is exhibit number four and turn to page 13. I have
6 a couple of questions for you.

7 **A. Page 13?**

8 Q. Yep. And this is related to the project
9 schedule. Now, you are, excuse me -- page 12. Now the
10 schedule indicates that NextEra is requesting the
11 commission issue its certificate by 2018; correct?

12 **A. That was the original request during the final,**
13 **yes.**

14 Q. So we agree that NextEra submitted a lot of new
15 information in February of 2019; correct?

16 **A. That is correct.**

17 Q. So is it fair to say that the schedule that's in
18 this amended application is really no longer following?

19 **A. That is correct.**

20 Q. A couple of questions with respect to the --
21 kind of the general environment with what we're dealing
22 with wind energy right now because your application
23 indicates that the Comprehensive State Energy Policy for
24 2010 to 2025 recommended the capacity of wind generation
25 of up to 5,000 megawatts by 2020, does that sound right

1 to you?

2 **A. Yes, I do recall that.**

3 Q. What is the current capacity of wind generation
4 in North Dakota?

5 **A. I don't have that figure. I understand -- I know**
6 **NextEra's. I don't know the overall capacity.**

7 Q. Do you know if it's greater than or less than
8 5,000?

9 **A. I don't know the capacity.**

10 Q. Okay. That's fair. Where will the energy
11 produced by this project ultimately go, who's going to
12 be the end user?

13 **A. The end user is Basic Electric.**

14 Q. And Basin will distribute it however Basin
15 distributes it?

16 **A. Correct, starting locally.**

17 Q. In the amended application, which is exhibit
18 number four, it states that the need to qualify for a
19 federal production tax credit is an important economic
20 consideration for this project. Why is this a need?

21 **A. Putting financial viability of the project to be**
22 **built and to translate that into lower PPA prices for**
23 **the ultimate customer.**

24 Q. And am I correct in understanding that you have
25 to commence construction on this project before December

Public Hearing
3/8/2019

Page 46

1 31, 2019 to be eligible for the tax credit?

2 **A. Yes, for 100% of the production -- federal**
3 **production tax credit.**

4 Q. If you do not meet that December 31, 2019
5 deadline, will you still move forward with the
6 construction of this project?

7 **A. Yes, we will.**

8 Q. You already talked about how this was originally
9 a 300 megawatt project and then it was adjusted to
10 become a 200 megawatt project, but 200 megawatts is the
11 maximum capacity that this project could produce; is
12 that correct?

13 **A. That is correct.**

14 Q. You expect this project to produce up to its
15 maximum capacity?

16 **A. There will be times that it will be produced up**
17 **to 200 megawatts.**

18 Q. What do you believe to be a reasonable
19 expectation as to the average output that we could
20 expect to see from this project?

21 **A. The expected output is approximately 50 percent**
22 **of the capacity.**

23 Q. That'd be hundred megawatts?

24 **A. Yes.**

25 Q. And I'm assuming that depends on how much wind

Public Hearing
3/8/2019

Page 47

1 there is at different times?

2 **A. Entirely, yes.**

3 Q. What is the anticipated useful life of this
4 project?

5 **A. 30 years.**

6 Q. Is that based on a contract or is that based on
7 how long infrastructure will last?

8 **A. Infrastructure is typically less.**

9 Q. So we move 30 years down the road and you have
10 some information in your application and I'll represent
11 it's on page 45 of exhibit number four and it indicates
12 that NextEra will develop a decommissioning plan in
13 accordance with North Dakota Administrative code. You
14 testified on that on direct testimony, correct?

15 **A. Yes, I did.**

16 Q. Does this mean that NextEra is committed to
17 following PSC's decommissioning rules?

18 **A. Yes, we are.**

19 Q. During your direct testimony, you talked about
20 some of the accessory structures that would be required
21 to build this project and it's my understanding that you
22 need a project substation, an O and M facility, some
23 roads, things like that; correct?

24 **A. That is correct.**

25 Q. And you also indicated that there's going to be

1 an increase of traffic about 600 vehicles at certain
2 times, is that correct?

3 **A. Correct. At peak construction.**

4 Q. And will that traffic be on paved or gravel road
5 out by the project site?

6 **A. Be both.**

7 Q. So with respect to the traffic on gravel road,
8 does NextEra intend to take any dust mitigation factors?

9 **A. Yes, we will.**

10 Q. And what would those dust mitigation factors be?

11 **A. That'll be water -- water spraying to control
12 the dust.**

13 Q. And if a neighboring landowner has an issue with
14 dust and believes that maybe some more water should be
15 sprayed, could they contact someone and get that done?

16 **A. Yes. The construction manager would be the
17 primary point of contact and we will be sharing that
18 individual's contact information.**

19 Q. I'm assuming that Ms. Wells will be testifying
20 with respect to some of the micrositing issues and
21 environmental issues?

22 **A. That is correct.**

23 Q. If I could have you turn to exhibit number on,
24 which is the transmission line consolidated binder and
25 if you look at page number ten, at the time this was

Public Hearing
3/8/2019

Page 49

1 submitted, indicated that 46 out of 48 easements for the
2 transmission line had been obtained and I believe it was
3 your testimony there's still one easement that needs to
4 be obtained?

5 **A. Actually, the one easement is for the wind**
6 **turbine farm and that's with North Dakota Trust Lands.**

7 Q. Okay. So with respect to the transmission line,
8 have those easements been obtained?

9 **A. Yes, we are 100 percent.**

10 Q. 48 out of 48?

11 **A. That is correct.**

12 Q. Can I have you turn to figure 4C of exhibit
13 number one?

14 **A. I'm sorry, 4C?**

15 Q. 4C.

16 Q. Okay. Well maybe you can answer the questions
17 without having to to deal with looking at the map but
18 there's a railroad that goes across where the
19 transmission line is proposed to be sited; correct?

20 **A. Correct.**

21 Q. And it's my understanding from looking at the
22 map that we have that the railroad is a non-participant
23 in this project; is that correct?

24 **A. That is correct.**

25 Q. Did NextEra obtain an easement from the

Public Hearing
3/8/2019

Page 50

1 railroad?

2 **A. We are actually in negotiations for the crossing**
3 **agreement at this time. We will have it in place prior**
4 **to construction.**

5 Q. Other than the one farmstead that you indicated
6 you got a waiver for on the transmission line, were
7 there any other waivers that were obtained for the
8 transmission line?

9 **A. No.**

10 Q. Are there any other that you believe are
11 required for the transmission line?

12 **A. No.**

13 Q. If I can have you turn to exhibit number two.
14 Actually, if we just go back to exhibit two and page 14
15 or 14 which was the map you referenced earlier in your
16 direct testimony. That's really the next question I
17 have, but on this map if you look on the only occupancy
18 structure, there's information in there and some of that
19 information with respect to this particular occupied
20 structure, states not participating and then it states
21 290.3 from whole structure and it says waiver obtained.
22 What was the significance of the pole structure as
23 opposed to the actual power line with respect to these
24 maps?

25 **A. In this case we measured from the outer most**

1 part of the pole structure, so one of the arms coming
2 off of the nearest point of the arm from the structure
3 versus the center point.

4 Q. Was consideration given to the actual
5 electricity line?

6 **A. From the center point or?**

7 Q. From the actual line to the occupied structure,
8 was that considered at all when you're determining
9 whether you need to obtain waivers?

10 **A. Yes.**

11 Q. And there was no point along the proposed
12 transmission line where the actual power line, not the
13 power pole, was within 500 feet of the residents; is
14 that correct?

15 **A. Would you mind restating that?**

16 Q. Sure. There was no point along the transmission
17 line route where a residence, business or other
18 structure that would be noteworthy was within 500 feet
19 of the actual line and not just a pole?

20 **A. Well, actually, that's this case here.**

21 Q. Okay. But this map is talking about the distance
22 from the pole?

23 **A. Correct.**

24 Q. I'm asking if NextEra gave consideration from --
25 to the distance from the actual power line or if all

1 these numbers are just based off the distance from the
2 poles?

3 **A. Distance from the pole.**

4 Q. Okay.

5 MS. FUREY: To clarify, the distance of
6 the pole, you mean from the outer most cross arm of the
7 pole?

8 **A. The outer most cross arm of the pole so it's**
9 **actually closer to the end of the actual line.**

10 Q. I guess my question is if they're -- you
11 indicated that these poles are going to be up to 1200
12 feet apart, correct?

13 **A. Right.**

14 Q. And if you're just measuring from the poles,
15 wouldn't it be possible to have a house directly
16 underneath the power line but 600 feet away from either
17 pole?

18 **A. That would be an exclusion area.**

19 Q. Okay. That's my question is did you give
20 consideration to the actual power lines when you were
21 considering this 500 foot --

22 **A. Yes, we did. Sorry.**

23 Q. Okay. That was my question. I don't have
24 anything further.

25 BY MR. LIEN

CROSS EXAMINATION

Public Hearing
3/8/2019

Page 53

1 Q. Just one question. When you're measuring from
2 the power line to a residence, are you looking at the
3 edge of the right away of the power line to the
4 residence or from the actual power line to the
5 residence?

6 **A. We utilize the central point of the line to the**
7 **residence -- to the center point of the residence.**

8 Q. So are there any situations where if you
9 interpreted that from the edge of the right-of-way, then
10 you need another waiver from somebody?

11 **A. There's one additional landowner who is a**
12 **participating landowner that would be below 500 feet.**

13 Q. That would be fro the edge of the --

14 **A. Edge of the corridor.**

15 Q. Corridor was the right-of-way; right?

16 **A. Right. So yes.**

17 Q. Okay. So I wonder if we should get that waiver?

18 **A. The agreement in place has that statement on it**
19 **in the easement agreement.**

20 Q. Okay.

21 **A. Has a waiver statement.**

22 Q. So could we file that?

23 **A. Yes, we can.**

24 Q. We can just make another waiver exhibit or you
25 want to put in with the existing waiver?

Public Hearing
3/8/2019

Page 54

1 MS. FUREY: Well, Jerry, as far as it goes
2 as far as waiver is concerned, I don't know that this
3 would be the same type of waiver that is traditionally
4 filed for when a residence is located above 500 feet of
5 the route as Mr. Hart has described. The rule doesn't
6 specifically state whether or not the setback is from
7 the edge of the right-of-way or to the pole structure as
8 Mr. Hart has testified to. So, I guess, just for
9 clarification, you would just like a copy of the
10 existing agreement?

11 Q. Or else another waiver document or something.

12 MS. FUREY: We can provide a copy of the
13 existing agreement.

14 Q. Okay. Thank you. And would that be in with that
15 exhibit 40 -- whatever it is with the waiver agreement?

16 MR. DAWSON: We'll talk about that at the
17 end of the meeting.

18 Q. Thank you. That's all I have. Thank you.

19 MR. DAWSON: Commissioner Fedorchak.

20 MS. FEDORCHAK: Thank you, judge. Thank
21 you, Daryl. Appreciate your time so far.

22 BY MS. FEDORCHAK CROSS EXAMINATION

23 Q. Some follow-up questions to some of the things
24 you've talked about already this morning. Can you
25 characterize the local permitting process? You said you

1 had six or eight or a number of meetings with the local
2 subdivisions. Tell me about those?

3 **A. Starting in 2017 we reached out -- started**
4 **reaching out to the local division, specifically the**
5 **county or county commissioners in pursuit of the**
6 **commission permit for the wind farm reaching out,**
7 **getting local support, providing regular updates,**
8 **bi-monthly updates to the commissioners and the local**
9 **leadership and also taking into account any feedback we**
10 **were provided so that we could finalize siting of the**
11 **project.**

12 Q. What kind of feedback did they have?

13 **A. For the -- from the leadership?**

14 Q. Yep. The planning -- all the planning and zoning
15 groups.

16 **A. So ultimately the Planning and Zoning Commission**
17 **did not recommend a -- did not recommend the project. At**
18 **the county that became the commission level, they did**
19 **approve the conditional use permit.**

20 Q. Now, was there a lot of public input at those
21 meetings?

22 **A. Yes, there was.**

23 Q. Why did the planning and zoning -- what was --
24 tell me about their recommendation, why did they deny
25 that?

Public Hearing
3/8/2019

Page 56

1 **A. Came down to --**

2 Q. Their recommendation denying it.

3 Q. Just local, local feedback. And -- local
4 feedback and then when it came to the county level, it
5 was that additional local feedback that basically caused
6 the -- or lead to the project being approved.

7 Q. Okay. So was the local feedback concerned
8 initially from the planning and zoning, was
9 environmental or was it just people didn't want it?

10 **A. At that time the project was still 300**
11 **megawatts. So the concern was near the environmental**
12 **restrictions on the eastern side of the project.**

13 Q. Did you have any additional community meetings
14 after that? Like not just meetings but official public
15 meetings with the leadership after the project was
16 reduced?

17 **A. With the county, yes.**

18 Q. Okay.

19 **A. As far as Burke County, yes.**

20 Q. Okay. Did any of the people that previously
21 opposed it show up and say, we're okay now, at that
22 time?

23 **A. I'm sorry, so once we downsized from 300 to 200**
24 **megawatts, we provided an update to the county, but**
25 **there were no additional public hearings.**

Public Hearing
3/8/2019

Page 57

1 Q. I see. Okay. But ultimately, you received the
2 approval from the county. Did they -- one of the things
3 that I noticed in their conditional use permit was a
4 requirement which you work with spray planes to allow
5 for spraying. How does one do that? I haven't heard
6 that.

7 **A. Yes, So if someone is planning on spraying**
8 **crops, as soon as they know, they're aware, we highly**
9 **recommend to coordinate with the operation maintenance**
10 **manager and we will curtail those turbans to accommodate**
11 **for spraying. And the earlier the better that we know**
12 **understanding full well that could be a short time.**

13 Q. Okay. So you just shut down the turbines that
14 are near where they're spraying and then turn them back
15 on after they're done?

16 **A. That is correct.**

17 Q. That easy?

18 **A. That is correct. That is the methodology.**

19 Q. All right. Those are great pilots. I'll just say
20 that.

21 **A. It's actually a common practice throughout our**
22 **fleet.**

23 Q. Is it? Okay. Hadn't picked that up yet. Let's
24 see here. So this is -- the transmission line is pretty
25 long. I mean, 37 miles, you're quite a distance from

1 your -- is that the nearest entry point or?

2 **A. Yes. That was the recommended location from**
3 **Basin Electric that had the capacity available for the**
4 **project.**

5 Q. Okay.

6 **A. Realizing initially that it was 300 megawatts**
7 **and then downsizing but it would still be in the same**
8 **location.**

9 Q. There wasn't -- that was their recommendation.
10 Were there closer ones that you initially thought might
11 be more appealing?

12 **A. Not that had capacity.**

13 Q. Okay. So once you figured that out, did you ever
14 consider just looking for a location closer to where you
15 are going to be interconnecting with the grid?

16 **A. That would have negatively impacted the**
17 **efficiency of the wind resource -- or utilizing the wind**
18 **resource. We are located on a very high wind area so we**
19 **are maximizing the efficiency from the wind resource and**
20 **moving off of that area closer or in any other direction**
21 **off of this plateau.**

22 Q. So you've got a 50 percent approximately
23 capacity factor here. Any estimate of what the capacity
24 factor would have been --

25 **A. You would have dropped below forty.**

Public Hearing
3/8/2019

Page 59

1 Q. Okay. So you did analyze that?

2 **A. Absolutely.**

3 Q. What attracted the company -- how did you find
4 out about this location, what attracted you to it
5 initially?

6 **A. We looked at two factors, we have a customer who**
7 **approached us and had a need.**

8 Q. So that's Basin?

9 **A. That's Basin and we analyzed the region for the**
10 **optimal wind resource and then overlay that with the**
11 **point of interconnection and then taking into account**
12 **environmental setbacks. And then on top of that, we**
13 **start reaching out to the community to see if there's an**
14 **interest in garnering voluntary -- volunteers from the**
15 **locals to sign up for it.**

16 Q. All right. And it's also a 345 kV. Is that
17 necessary to be that big?

18 **A. Yes, it is because that's the -- that's the size**
19 **of the existing point of interconnection.**

20 Q. Okay.

21 **A. So we have to interconnect at that.**

22 Q. Okay. So you have quite a lot of additional
23 capacity on those lines?

24 **A. That's correct.**

25 Q. And so are you anticipating trying to expand

Public Hearing
3/8/2019

Page 60

1 down the road? Are you prepared for that? Is that part
2 of the thoughts of the company and making the space in
3 that line?

4 **A. At this time we have no plans to expand the**
5 **project.**

6 Q. Is it a possibility that you could?

7 **A. There is a possibility at some point in the**
8 **future that it could be, but those are not in the works**
9 **at this time.**

10 Q. Sure. Did you look at any -- does NextEra
11 develop solar?

12 **A. Yes, we do.**

13 Q. Did you ever consider a solar resource in this
14 area instead of the wind?

15 **A. No, we did not.**

16 Q. Is there any reasons why you couldn't out in
17 this part where the basin is located?

18 **A. That definitely could be a possibility in the**
19 **future, but that did not come up in our discussions with**
20 **the optic. They were focused on doing energy but if the**
21 **opportunity arises, we could always open up that as a**
22 **future opportunity.**

23 Q. They were focused on wind energy expressly or
24 renewable energy?

25 **A. Renewable energy but because of the high**

1 capacity factor, wind was the optimal opportunity at the
2 time.

3 Q. Okay. So they feel that they need 200 megawatts
4 with a 50 percent capacity factor?

5 A. Yes.

6 Q. How big -- do you know much about solar?

7 A. I can try my best.

8 Q. How big would this -- how large of a solar
9 facility would you need to kind of provide that same
10 amount of energy?

11 A. I use it as a rule of thumb, six to seven acres
12 per megawatt. So you would have direct impacts of 200
13 times seven acres, which is -- and that would be
14 continuous land impacts so that would be extensive.
15 That'd be an extensive impact that you're comparing
16 directly to wind.

17 Q. Okay. I think that's all unless you have any
18 just general company information from company leadership
19 information that you'd like to say kind of in defense of
20 this site and in response to a lot of the concerns that
21 have been expressed?

22 A. Understood. Dr. Wells will expand on a lot of
23 the mitigation that we took into account, but we -- we
24 had some very deep discussions internally and along with
25 our costumer to take into account the local feedback

1 that we received when we originally had a 300 megawatt
2 site and to move the site or to basically truncate the
3 eastern side of the project and moving us away by seven
4 -- by seven -- up to seven miles away from Lostwood was
5 a -- took us quite a while to come to fruition and so we
6 -- so formulating that decision was very important from
7 all -- all the way from our leadership all the way down
8 to project -- to the project level. So we took it to
9 heart and we also believe that that was a key part of
10 our mitigation strategy. In addition to that, we also,
11 and Dr. Wells will talk about this, we did move 55
12 turbines off of unbroken prairie of grasslands keeping
13 five there and Dr. Wells will talk about that some more.
14 So we took a lot of the actions from the highest level
15 to make sure that we mitigated as best as we could.

16 Q. Okay. Very good. That's it for now. Thank you.

17 MR. DAWSON: Commissioner Kroshus.

18 BY MR. KROSHUS CROSS EXAMINATION

19 Q. Mr. Hart, first of all, thank you for your
20 service.

21 A. Thank you.

22 Q. The Game and Fish letter that we received on
23 March 7th, just a few days ago, what's your response to
24 that? It's a very -- it's a pretty strong letter in
25 terms of disappointment in terms of how you went about

Public Hearing
3/8/2019

Page 63

1 securing the PCA without, as they state in the letter,
2 that was signed prior to any wildlife habitat studies
3 being done and I realize that Kimberly Wells will be
4 coming up as well.

5 **A. I would like to state that we do recognize our**
6 **efforts to work with them for mitigation. The permitting**
7 **process and the commercial process of the projects run**
8 **in parallel. I can't time exactly when both will occur.**
9 **So discussions -- discussions with the agencies and**
10 **discussions with the customer but we try our best to**
11 **align the two and it's unfortunate, but that's the way**
12 **that Game and Fish framed this. But I will say that they**
13 **do recognize our efforts to have open discussions for**
14 **voluntary mitigation for offsets.**

15 Q. Okay. I believe it was -- the and I realize
16 that's not a siting requirement or a consideration, if
17 you will, but when I look at -- or think of the fact
18 that you're using 2015 turbines and qualifying safe
19 harbor provision to get (inaudible), assuming the
20 project is constructed by the end of this year, if not,
21 it will go to 80 percent, is that correct, from 100 to
22 80?

23 **A. Or we can go back and utilize 2016 vintage**
24 **turbines, safe harbor turbines.**

25 Q. But help me reconcile how turbine, you know,

1 it's -- it's the part that I struggle with the most and
2 that it's more of a personal thing, I'm sure than actual
3 siting criteria, but no one knew where those turbines
4 were going to go when they were purchased apparently
5 because I can't imagine someone buying them in 2015,
6 they're not thinking that they're going to wind up near
7 Bowbells, North Dakota. Would that be a fair statement?

8 **A. Actually, we have -- we have a strategy for**
9 **acquiring these turbines and the turbines actually are**
10 **allocated to the projects as they come to fruition,**
11 **specifically, as we acquire PPAs and then as we -- as**
12 **the project matures and receives its permits. I will say**
13 **that we've purchased these at risk understanding full**
14 **well that we are trying to predict where these are going**
15 **to go in 2016, 2017, 2018 and that is all -- that is**
16 **actually our dedication to moving forward and continuing**
17 **construction is that we are taking that risk and we're**
18 **taking that big step into a large capital investment. In**
19 **this case, it's eight turbines of the 76.**

20 Q. Now going back to the 76 turbines, 22,900 acres,
21 which is approximately 300, 301 acres per turbine. And
22 I've brought this up in the past and the answer I
23 received last -- at the last hearing, a separate hearing
24 was essentially, well, it's okay because the landowners
25 are still getting a per acre payment on the land that's

Public Hearing
3/8/2019

Page 65

1 within the footprint, part of the project area and --
2 but we're talking about minimal adverse effects to the
3 environment. And when I'm looking at 300 acres per
4 turbine, this is the same question I asked last time.
5 What I've seen similar sized projects in other parts of
6 the country, and, again, assuming we've got the best
7 wind or some of the best wind in the country, you would
8 think we would be more condensed and it's really the
9 opposite and we're running at a three or even four,
10 sometimes five to one ratio compared to projects in
11 other parts of the country. Why so much land? Like why
12 can't these be tightened up and so they're not sprawling
13 over such a wide expanse?

14 **A. Responsible siting of turbines, we follow all**
15 **of the criteria to -- we follow state, county and our**
16 **internal restrictions knowing full well that by**
17 **following these rules and taking into account all of the**
18 **environmental restrictions or setbacks that are required**
19 **as well as additional restrictions that are set within**
20 **the siting criteria, all of -- all of those restrictions**
21 **add to the amount of acreage that are required as long**
22 **as we want to follow the rules to the best of our**
23 **ability or exceed, so each time we were setting a**
24 **turbine and we have to be -- we're looking at a map with**
25 **different setbacks, say, wetlands, or says it's a**

1 residence or something else, each time -- or sound or
2 flicker, each time you're adding more land and moving
3 further apart. I guess I can't say which -- which states
4 you're analyzing, but there are other states that don't
5 have the same zoning restrictions and/or environmental
6 concerns based on wherever that is in the given state
7 and you're right, we can move turbines closer, but in
8 this case, in following the setbacks and looking at all
9 the land you cover up and can utilize after the
10 restrictions are in place, it's a very small footprint
11 in between within the 22,000 acres that we can actually
12 utilize.

13 Q. That still doesn't seem to make sense to me when
14 I look at the fact that North Dakota is the fourth least
15 populated state in the country in terms of number of
16 acres or residents and then I look at states like New
17 York or Texas, for example, and I realize the metro area
18 and that skews the numbers versus the rural population,
19 but you're talking about 22,900 acre footprint for only
20 seven people that live within that footprint; is that
21 correct?

22 A. Seven, yes. I will also say that also gives us
23 -- having that large footprint also gives us the ability
24 to optimize and get to that 50 percent capacity factor
25 and if you move the turbines closer, it's higher waking

1 internally and you're getting to the point where the
2 interaction between the turbines you're extracting the
3 energy and not giving the wind a chance to get back up
4 to full speed or an optimal wind speed.

5 Q. So it'd be -- assuming the economics -- would
6 the economics pencil out then -- or economic slash
7 knowing you're measuring efficiency, okay, you're going
8 turbines are too close together, it won't be as
9 efficient in terms of output?

10 A. That is correct.

11 Q. What's the myriad of -- and I realize that the
12 tighter space, the more concentrated they are, that goes
13 down, but are we talking to a few percentage points or
14 are we talking a turbine that's only a quarter of a mile
15 away? Not even in line with the prevailing wind, is it
16 really going to impact it or within even, let's use a
17 quarter of a mile? Seems like there's adequate space
18 between two turbines.

19 A. If you're saying to a quarter of a mile, the
20 simple answer is yes. If you put the turbines closer or
21 however you wanted to arrange that, the capacity factor
22 will drop considerably as well as adding additional
23 strain on the turbines because you're putting them in a
24 high turbulent area after the first turbine or second
25 turbine without allowing the pre wind stream to hit the

1 **turbine without having the turbulence.**

2 Q. That's just something I don't know exactly. I'll
3 talk with -- Jerry, I'll talk with you and see if
4 there's a way to frame, you know, a way to frame this up
5 in terms of -- because I think I know -- what I'm trying
6 to -- when I'm looking at an application and, okay,
7 we're talking about minimal impacts, impacts there's
8 always a degree of variability in any type of an energy
9 conversion facility and then leads me to wonder, well,
10 if it's economics and efficiency and ultimately the
11 economics are really driving this or is the larger
12 footprint to create an avenue to expand at some point in
13 time and I realize you have to work that through an
14 agreement to be able to push more power out of the
15 system. But let me ask this. What are the turbine sizes?
16 1.5 to -- or did I get that number wrong?

17 **A. I'm sorry?**

18 Q. Turbine size?

19 **A. 17 megawatt is the larger one.**

20 Q. Okay.

21 **A. And then 1.715 is the other eight turbines.**

22 Q. How large out of -- how large of turbine could
23 you put?

24 **A. Megawatt wise?**

25 Q. Yeah.

1 **A. We're --we've actually found, for our purposes**
2 **here, this is the optimal turbine, so optimal available**
3 **turbine from this manufacturer that compliments both the**
4 **economics as well as the energy.**

5 Q. Is that looking at it from the standpoint that
6 in 2015 that vintage qualified for -- you know,
7 qualifies for the 100 percent PTC?

8 **A. Right. So they realize that's just the eight**
9 **turbines, I mean, you still have these 68 other turbines**
10 **that are -- that are larger.**

11 Q. So how do you explain or how do you present to
12 -- I think this is, you know, I've asked questions that
13 obviously I'm trying to wrap my brain around some of
14 these, for me they're issues, challenges in terms of how
15 I look at a project. How do you explain it to a local
16 zoning authority or county zoning authority or
17 landowners for the first time when they've never gone
18 through a process like this before and you're talking
19 about things like shadow flicker, noise when they've
20 never experienced it before and, of course, I think, you
21 you, to be perfectly honest, I think the agricultural
22 community is a little more vulnerable right now. That
23 might not be the best word. Let me rephrase it. I think
24 would be more amicable to signing an agreement when you
25 got low grain prices and, you know, for some it's a

Public Hearing
3/8/2019

Page 70

1 financial decision as much as in terms of, okay, you got
2 a younger generation coming up, I would keep them on the
3 farm and this helps do that. But right now I would have
4 to -- have to believe that in some ways it's the perfect
5 storm in terms of, okay, the PTCs are expiring, you've
6 got a warehouse full of turbines somewhere that -- and
7 that's a generalization, but you've got these inventory
8 bank somewhere stored somewhere that you're looking to
9 move into various projects across the country, so you're
10 moving as fast as you can to get full PTC, the federal
11 tax dollars. I always call it the invisible utility bill
12 when I'm talking to people that you don't see but it's
13 your second utility bill if you pay federal taxes and
14 then low commodity prices and ag producers are
15 struggling and I'm hoping to explain, I guess, a long
16 way to getting to the final question, but how do you
17 explain the process to them and you said you have -- you
18 bring them in and what type of materials do you provide
19 to them in terms of shadow flicker, noise and what this
20 is going to mean?

21 **A. It's actually a long-term process because we**
22 **come into the community so it's a landowner or a local**
23 **leadership and build that trust over time and build that**
24 **relationship to actually give the experience to the**
25 **landowners or local county commissions, we will bring**

1 them to one of our 14 operating sites in the state and
2 have them talk to additional landowners, county
3 commissioners in those townships. So that's a first-hand
4 approach to having them listening to the sound and see
5 how actual -- how the operating wind turbine is
6 basically integrated into the -- into the local
7 community. So materials, we have studies and those types
8 of things. But we actually sit down and we describe the
9 sound flicker, we describe the local benefits that
10 occur. As you see here, we make local donations. We
11 actually become partners with the local community and we
12 don't just develop and leave. Our company is dedicated
13 to coming in here and you're here for the long term. We
14 have employees who live in the town, live in the local
15 community, and then become part of the community. Some
16 of the wind technicians actually may be from this county
17 and want to come back and this gives them the
18 opportunity. So we share not just the wind -- what
19 happens with the turbines and how that impacts the local
20 community, but we also talk about the benefits and we
21 come to a holistic approach.

22 Q. Do you feel the officials at the county level,
23 do you get a feel after you met with them, talked with
24 them, and you've had your meetings that they have a high
25 level of comfort in terms of the process, whether they

Public Hearing
3/8/2019

Page 72

1 agree with it or don't agree with it but they have a
2 full understanding of what's involved or do you think
3 there are lingering questions after -- again, because
4 it's -- there are a lot of firsts in this process?

5 **A. Realize our relationship is over -- so at this**
6 **point, it's over two to three years, so yes, initially**
7 **the county commissioner. So yes, initially there are**
8 **questions and we give them the opportunity to ask those**
9 **questions and we will come back and speak at the monthly**
10 **to bi-monthly meetings that we had to follow up and give**
11 **them the experience of actually bringing them to other**
12 **counties, bringing them to other places, so we get to**
13 **the conditional use permit timeframe or we get to those**
14 **hearings. They should have those answers already in**
15 **place.**

16 Q. Scratch that question. That's a grouchy question
17 from being on an airplane all day.

18 **A. Thank you.**

19 Q. And I'm convinced the airline I was on, their
20 motto is, we're not happy until you're not happy.

21 **A. Once again, thank you.**

22 Q. Here it is. The adjacent landowners, how far --
23 nonparticipating landowners adjacent to the project and
24 can you walk me -- you had touched on that. How far out
25 do we go from the edge of -- I would imagine you're

Public Hearing
3/8/2019

Page 73

1 highly engaged with people. I would hope you're highly
2 engaged with the people but is it one mile beyond that,
3 is it two miles, is it five miles, how do you go about
4 -- because these, they're going to be on a plateau,
5 they're going to be be visible for quite a number of
6 miles. How far out do you --

7 **A. Are you talking about outreach basically?**

8 Q. Outreach. Correct.

9 **A. We find that during 2017 we posted in newspapers**
10 **in -- to basically have to reach out to all the**
11 **landowners in the general area to come to open houses,**
12 **so our outreach is how far the newspaper can reach with**
13 **the local community.**

14 Q. Which papers did you use for this project? The
15 reason I ask you just so I can take a look.

16 **A. Burke Tribune.**

17 Q. The what?

18 **A. The Burke Tribune.**

19 Q. Okay. Any other -- any other means of alerting
20 the public?

21 **A. Well, it comes to the open houses so -- and then**
22 **-- so within the project boundary we have one approach**
23 **but outside of that, we found the best way to reach out**
24 **through the newspaper.**

25 Q. I was privy to a very small town, so word

Public Hearing
3/8/2019

Page 74

1 travels fast. I was often in trouble before I even had
2 the opportunity to get home. I don't believe I have any
3 other questions and I apologize, it gets a little winded
4 bouncing around a little bit because so many of the
5 questions have already been covered questions. No other
6 questions. Maybe it was mentioned or I forgot or I think
7 it's in the app but do these have heater jackets?

8 **A. Yes, they do. These have the cold weather**
9 **package.**

10 Q. All right. I don't have any other questions at
11 this time. Thank you.

12 MR. DAWSON: I understand that
13 Commissioner Fedorchak has a few more questions and when
14 she is done, we'll take a 15 minute break and then come
15 back for redirect and cross. Commissioner Fedorchak.

16 BY MS. FEDORCHAK RE-CROSS EXAMINATION

17 Q. Thank you, judge. I don't know about everybody
18 else but I'm really curious about the grouchy question.
19 I'm gonna have to peak at his notes and see what he
20 crossed off. You might have a secondary occupation in
21 writing slogans for airlines. Okay. I know everybody
22 wants to stand up as do I. Quick question I failed to
23 ask. What about about -- tell me about -- there's a fair
24 number of nonparticipating landowners within the
25 footprint. I'm looking at exhibit 35 and all the red

1 hashed out sections. Are your -- does the company
2 have a policy of paying everybody within the footprint?
3 Every participating landowner within the footprint or
4 how do you deal with the nonparticipating landowners
5 within the footprint?

6 **A. So the nonparticipating landowners do not have**
7 **agreements and have will not be receiving compensation.**

8 Q. Okay. If they had signed, would they have been
9 paid something even if they didn't have a turbine
10 located on their property?

11 **A. Yes.**

12 Q. And can you characterize the opposition or the
13 reasons why there's a huge number on the east side of
14 this site that did not participate within the footprint?

15 **A. Yeah, there was -- there are various reasons.**
16 **There is a -- just to categorize. We did not have a**
17 **large negative feel when we were discussing with these**
18 **landowners, some of the landowners just decided that**
19 **they had multiple family members that had to come to**
20 **agreement with it and just decided that they weren't**
21 **interested. Another family has a number deployed**
22 **overseas and we just didn't have enough communication to**
23 **establish an agreement. There was another family that's**
24 **-- they're avid hunters and just didn't want turbines on**
25 **their land.**

Public Hearing
3/8/2019

Page 76

1 Q. Okay. I think that's all. Thank you.

2 MR. DAWSON: We'll take a break here for
3 15 minutes and then come back and you'll be back in the
4 chair.

5 (Recess taken.)

6 MR. DAWSON: Mr. Hart is still under oath.
7 Ms. Fury, any redirect?

8 MS. FUREY: Just a few follow-up questions
9 Your Honor.

10 BY MS. FUREY REDIRECT EXAMINATION

11 Q. Mr. Hart, you testified that Burke Wind me with
12 Burke County Planning and Zoning and the county
13 commission, a total of meetings and hearings six times,
14 was noise and shadow flicker ever discussed at those
15 meetings?

16 **A. Yes, it was.**

17 Q. Did Burke Wind or any environmental health
18 expert come to those meetings to discuss these topics?

19 **A. Yes, we did,**

20 Q. You testified that public outreach consisted of
21 various, newspaper ads and notices that were polished?

22 **A. That's correct. That's correct.**

23 Q. And in addition, you testified that you opened
24 an office locally here in Bowbells?

25 **A. Yes. It's actually just straight across the**

Public Hearing
3/8/2019

Page 77

1 **street.**

2 Q. Okay. Thank you.

3 MR. DAWSON: Mr. Schmidt?

4 MR. SCHMIDT: No questions, Your Honor.

5 MR. DAWSON: Mr. Lien?

6 MR. LIEN: No questions.

7 MR. DAWSON: Commissioner Fedorchak?

8 MS. FEDORCHAK: No questions.

9 MR. DAWSON: Commissioner Kroshus?

10 MR. KROSHUS: I have no other questions.

11 MR. DAWSON: You may step down. Thank you.

12 Ms. Furey, you may call your next witness.

13 MS. FUREY: Thank you, Your Honor. We call
14 Mr. Richard Lampeter.

15 MR. DAWSON: Mr. Lampeter, you were here
16 for the previous warnings on perjury?

17 MR. LAMPETER: Yeah.

18 MR. DAWSON: So you know what perjury is
19 and the penalties for it?

20 MR. LAMPETER: Yes, I do.

21 MR. DAWSON: Understanding so, do you
22 promise or swear that the testimony that you're about to
23 give will be the truth, the whole truth and nothing but
24 the truth?

25 MR. LAMPETER: Yes, I do.

Public Hearing
3/8/2019

Page 78

1 MR. DAWSON: You may begin.

2 BY MS. FUREY DIRECT EXAMINATION

3 Q. Thank you. Please state your name and business
4 address?

5 A. My name is Richard Lampeter. My business address
6 is 3 Mill & Main Place, suite 250 Maynard, Massachusetts
7 01754.

8 Q. Thank you. By whom are you employed and in what
9 capacity?

10 A. I'm employed at Epsilon Associates, Inc. I am an
11 associate at the company and manage the acoustics group.

12 Q. Please summarize your qualification and
13 experience?

14 A. I have over 15 years of experience in conducting
15 impact assessments for various developments across the
16 United States. Prior to joining Epsilon, I graduated
17 from Lyndon State College in Vermont with a Bachelors of
18 science and environmental science. I'm currently a
19 member of the Institute of Noise Control Engineering.
20 While at Epsilon, I've been involved in approximately 90
21 wind energy projects evaluating potential impacts from
22 sound and/or shadow flicker. The projects I've worked on
23 range in size from 1.5 megawatts to over 300 megawatts.
24 As part of project evaluations, I assisted in
25 refinements in wind turbine layouts to minimize shadow

1 flicker and sound of residences. My other areas of
2 expertise include measurement of ambient sound levels,
3 modeling sound levels from proposed developments,
4 evaluation of conceptual mitigation, and compliance
5 sound level measurements. I've conducted impact
6 assessments for power generating facilities, commercial
7 developments, industrial facilities and transfer
8 stations. I presented the results of the analyses at
9 public meetings to county and township boards.
10 Additional detail regarding my education, background and
11 experience is contained in my CV, which is marked as
12 exhibit 13.

13 Q. What is your role with respect to the Burke Wind
14 project?

15 A. Epsilon has been retained to conduct sound and
16 shadow flicker analyses for this project.

17 Q. What is the purpose and scope of your testimony
18 today in this proceeding?

19 A. The purpose of my testimony is to provide a
20 summary of the sound and shadow flicker analyses
21 conducted for Burke County Wind Energy Sound Project.

22 Q. Can you please provide an overview of the sound
23 level analysis that you conducted?

24 A. Epsilon conducted sound level modeling and
25 receptors to evaluate both the state and county

1 regulatory limits with respect to sound. This modeling
2 was conducted according to an international standard for
3 sound propagation.

4 Q. Can you please describe the state's sound
5 regulation?

6 A. The North Dakota Administrative Code sound limit
7 is 50 dBA within a hundred feet of an inhabited
8 residence or community building.

9 Q. How did you evaluate this limit in the sound
10 model?

11 A. As Epsilon was provided coordinates for the
12 center point of the home, we also included discrete
13 receptive points 150 feet from the center of the home in
14 four cardinal directions. This was done to account for
15 the 100-foot offset from the exterior while including an
16 additional 50 feet to conservatively account for the
17 distance from the center point to the exterior of the
18 home.

19 Q. Can you describe the Burke County sound
20 regulation?

21 A. Burke County zoning regulations, which adopt the
22 sound levels identified in 1974 U.S. EPA guideline
23 document, information on sound levels of environmental
24 noise requisite to protect public health and welfare
25 with an adequate margin of safety. My expert opinion,

1 these guidelines equate to a 49 dBA sound level, which
2 is applied 90 feet from an occupied structure.

3 Q. Please describe how you derived the 49 dBA limit
4 from the EPA's 1974 guidance document?

5 A. The EPA levels document, I'll simplify the name
6 there, guideline limit for outdoor activity interference
7 and annoyance is an ldn 55 dBA. This limit was set for
8 outdoors in residential areas and farms and other
9 outdoor areas where people spend widely varying amounts
10 of time and other places in which quiet is the basis for
11 use. The Ldn is a day -- night average sound level and
12 it's a 24 hour A-weighted equivalent sound level with a
13 10 decimal adjustment applied to the nighttime levels.
14 It is not the same as the unadjusted state limit of 50
15 dBA. To make an apple to apple comparison and for
16 purposes of the compliance evaluation, the Ldn needs to
17 be converted to an Leq. To calculate the Ldn it requires
18 an understanding of the sound level from the turbine for
19 each distinct hour over the 24 hour period. It applies a
20 10 decibel adjustment factor for each nighttime hour
21 between 10:00 PM and 7:00 AM. Therefore, if the wind
22 turbines are operating under worst case conditions,
23 meaning, under what is maximum sound power levels, with
24 a sound level at a receptor of 49 dBA for each hour,
25 over the entire 24 hours, that location will be the

1 equivalent of the 55 Ldn limit.

2 Q. Can you provide more detail on the sound
3 modeling methodology for this project?

4 A. The sound levels associated with the proposed
5 wind turbines were predicted using the Cadna/A sound
6 level calculation software developed by DataKustik. This
7 software uses the ISO 9613-2 international standard for
8 sound propagation. The standard is utilized in the
9 industry for modeling sound propagation for wind
10 turbines and other sound producing equipment. Cadna/A is
11 one of several software packages available to model
12 community sound levels.

13 The sound level modeling analysis included the
14 proposed collector substation, and 81 wind turbines,
15 which consists of 76 proposed wind turbine locations and
16 five alternate wind turbine locations.

17 Sound levels were calculated at the center points
18 of the homes and also 150 feet from the center point in
19 the four cardinal directions. This was done to address
20 the requirements of the State and County regulations.

21 The amended sound level assessment report for the
22 200 megawatt wind project, dated November 6, 2018 was
23 filed with the Commission and is marked as exhibit 10.
24 Epsilon subsequently updated this report in the addendum
25 to the sound report which is dated February 4, 2019 was

1 **filed with the commission and is marked as exhibit 9.**

2 Q. Please describe the differences between the
3 addendum which is marked as exhibit nine that is in
4 volume one of the exhibit book and the amended sound
5 level assessment report marked as exhibit 10 also in
6 volume one of the exhibit book?

7 **A. The February 4, 2019 addendum updates the**
8 **earlier report and includes updated modeling results.**
9 **This addendum was created in order to address updates**
10 **and changes to the sound level modeling based upon a new**
11 **receptor dataset, new land use dataset, and feedback on**
12 **the format of submittals for other recent projects in**
13 **North Dakota. The project layout and sound level**
14 **modeling parameters are identical to the ones used for**
15 **the previous report.**

16 Q. So to be clear, the results in the addendum
17 which is marked as exhibit nine are the current sound
18 results?

19 **A. Just going to confirm it.**

20 Q. And I would actually grab --

21 **A. Yes, that is correct.**

22 Q. And these results were derived through the
23 methodologies described in full sound report which is
24 marked as exhibit 10?

25 **A. Yes, that is correct.**

1 Q. What are the results of this revised analysis?

2 A. The updated sound model predicted broadband dBA
3 Leq sound levels at the modeling receptors. The sound
4 levels range from 23 to 47 dBA. The highest modeled
5 sound level at a participating modeling receptor is 47
6 dBA while the highest modeled Leq sound level at a
7 non-participating receptor is 46 dBA. Project sound
8 levels at all revised modeling receptor locations are
9 below the most restrictive county limit of 49 dBA.

10 Q. Is the modeling analysis conservative?

11 A. Yes. The sound level modeling conducted is
12 conservative. Sound level modeling assumptions inherent
13 in the ISO 9613-2 calculation methodology, or selected
14 as conditional inputs by Epsilon, were implemented in
15 the Cadna/A model software to ensure conservative
16 results. These include: All modeled sources were assumed
17 to be operating simultaneously and at the design wind
18 speed corresponding to the highest sound level. As per
19 ISO 9613-2, the model assumed favorable conditions for
20 sound propagation, corresponding to a moderate,
21 well-developed ground-based temperature inversion, as
22 might occur on a calm, clear night or equivalently
23 downwind propagation, meaning the receptor is downwind
24 from all wind turbines simultaneously. Meteorological
25 conditions assumed in the model which are a temperature

1 of 20 degrees Celsius or 50 degrees Fahrenheit and
2 relative humidity at 70 percent were selected to
3 minimize atmospheric attenuation in the 500 Hz and 1 kHz
4 octave bands where the human ear is most sensitive.

5 Finally, a two decibel uncertainty factor for the
6 wind turbine sound power level was included.

7 Q. Thank you. Can you please explain the two
8 decibel uncertainty factor?

9 A. Yes. The wind turbine manufacturer typically
10 provides an uncertainty factor for their sound power
11 levels of a plus or minus two decibels for the wind
12 turbine. In the modeling, we conservatively add two
13 decibels to the sound power assigned to all wind
14 turbines in the model. This has the effect of adding two
15 decibels to otherwise modeled sound level at each
16 modeling receptor.

17 Q. Have you reviewed the direct testimony of Mr.
18 David Hessler that was filed with the commission
19 yesterday? It is marked as hearing exhibit 43 and that
20 includes his report and also his CV are included
21 together in that?

22 A. Yes, I have.

23 Q. What was Mr. Hessler's conclusion on your sound
24 level assessment report?

25 A. Mr. Hessler states on page three of his

1 testimony that this study is well done and I completely
2 agree with the modeling methodology and all of the
3 assumptions that went into the sound contour mapping
4 done for all three versions of the report. However, Mr.
5 Hessler then faulted the study for focusing on
6 regulatory compliance and not making any effort to
7 evaluate or assess the potential noise impact of the
8 project on the community.

9 Q. How would you respond to Mr. Hessler's
10 criticism?

11 A. I do not agree with Mr. Hessler's
12 characterization of the county sound limit or the need
13 to have conducted a baseline ambient sound level
14 assessment.

15 Q. Why do you disagree with Mr. Hessler's
16 characterization of the county sound limit?

17 A. The EPA guideline adopted by the county is
18 clearly a 24 hour-sound limit whereas Mr. Hessler's
19 interpretation assigns a short-term nighttime limit. The
20 EPA considered nighttime sound levels in their adoption
21 of an adjustment factor to be used in a 24-hour average,
22 and elected to not specifically limit sound levels
23 during the night.

24 Q. Why do you believe that a baseline ambient sound
25 level assessment is not required?

1 A. The county and state limits are based on sound
2 generated from wind turbines at receptor locations.
3 Collecting the data for baseline ambient level -- noise
4 level would be of minimal value as it is not applicable
5 to these limits. In addition, evaluating an increase
6 over background limit is problematic as there are many
7 factors which impact sound levels making it difficult to
8 assign one number as the background sound level.

9 Q. Is your analysis complete and does it
10 demonstrate compliance with both the county and state
11 sound regulation?

12 A. Yes, it does.

13 Q. What is shadow flicker?

14 A. Shadow flicker can be defined as intermittent
15 change in the intensity of light in a given area
16 resulting from the operation of a wind turbine due to
17 its interaction with the sun. While indoors, an observer
18 experiences repeated changes in the brightness of the
19 room as shadows cast from the wind turbine blades
20 briefly pass by windows as the blades rotate. In order
21 for this to occur, the wind turbine must be operating,
22 the sun must be shining and the window must be within
23 the shadow region of the wind turbine, otherwise there
24 is no shadow flicker. A stationary wind turbine only
25 generates a stationary shadow similar to any other

1 **structure.**

2 Q. What standards did you apply to evaluate shadow
3 flicker results for this project?

4 **A. Consistent with the North Dakota Public Service**
5 **Commission precedent, which is a common standard applied**
6 **across many jurisdictions, a design goal 30 hours per**
7 **year of expected shadow flicker at inhabited structures**
8 **and community buildings was established.**

9 Q. What is the difference between the shadow
10 flicker analysis report dated November 6, 2018 which is
11 marked as exhibit 12 that's in volume one of the hearing
12 binders and the shadow flicker addendum dated February
13 4, 2019 marked as exhibit 11 also in the volume one?

14 **A. The February 4, 2019 letter serves as an**
15 **addendum to the earlier report and includes updated**
16 **modeling results. This addendum was created in order to**
17 **address updates and changes to the shadow flicker**
18 **modeling based upon a new receptor dataset, new land**
19 **status dataset and feedback on the format of submittals**
20 **for other recent projects in North Dakota. The project**
21 **layout and shadow flicker modeling parameters are**
22 **identical to the ones used for the original shadow**
23 **flicker report.**

24 Q. So, again, to confirm, the results in the
25 addendum which is marked as exhibit 11 are the current

1 shadow flicker result and were derived from the modeling
2 parameters as discussed in exhibit 12?

3 **A. Yes, that is correct.**

4 Q. Can you discuss the methodology used to predict
5 the shadow flicker levels expected from the project?

6 **A. Shadow flicker was modeled using a software
7 package, WindPRO, which was developed by EMD
8 International and is used for assessing potential
9 environmental impacts for wind turbines. Using the
10 shadow module within WindPRO, worst-case shadow flicker
11 in the area surrounding the wind turbines was calculated
12 based on data inputs including the location of the wind
13 turbines, location of discrete receptor points, wind
14 turbine dimensions, shadow flicker calculation limits
15 and terrain data. Based on these data, the model was
16 able to incorporate the appropriate sun angle and
17 maximum daily sunlight for this latitude into the
18 calculations. The worst case calculations assume the sun
19 is always shining during daylight hours and the wind
20 turbine is always operating. WindPRO shadow module can
21 be further refined by incorporating sunshine
22 probabilities and wind turbine operational estimates by
23 wind direction over the course of a year. The values
24 produced by this further refinement are known as the
25 expected shadow flicker and are presented in the**

1 **analysis.**

2 Q. What were the results of this revised analysis?

3 **A. The updated shadow flicker model presents**
4 **predicted expected annual shadow flicker duration at 56**
5 **receptors. There's also the modeling range from zero**
6 **hours, zero minutes per year, 25 hours, 30 minutes per**
7 **year. Expected annual shadow flicker at all revised**
8 **modeling receptor locations are below the project design**
9 **goal of 30 hours per year and, therefore, the project**
10 **meets the design goal with respect to shadow flicker.**

11 Q. Can I draw your attention to hearing exhibit
12 eight, can you please describe this document?

13 **A. Okay.**

14 Q. Does this chart contain the final results that
15 are included in the final addendums to involve the
16 amended sound and shadow flicker reports which are
17 exhibits 9 and 11?

18 **A. Yes. These are a series of three tables**
19 **organized by modeling ID. Each table -- first table is**
20 **for participating landowners and then there are**
21 **nonparticipating and participating owner and then just**
22 **nonparticipating landowners and they present both the**
23 **sound and shadow flicker results that are found in the**
24 **addendum.**

25 Q. Thank you. Does this conclude your testimony?

1 developed in Europe as they were -- wind turbines became
2 -- were instituted there first. And that is where
3 development began. From there, various U.S. agencies and
4 really jurisdictions use that as far as -- and also in
5 the development of projects, developers and consultants
6 in a way to try to put shadow flicker into some context
7 relied on some of that -- those regulatory guides
8 documents and from that extracted 30 hours per year from
9 those and that has been applied as a criteria to
10 evaluate whether a project will result in a significant
11 nuisance with respect to shadow flicker.

12 Q. I'll have you turn to exhibit number 11 and then
13 figure two. You can look at a sheet one of two.

14 A. Okay.

15 Q. Now, your report indicated that the maximum
16 amount of shadow flicker predicted per year was 25 hours
17 and 30 minutes; correct?

18 A. That's the maximum expected.

19 Q. And do we agree that was -- I'm kind of having
20 trouble reading it because it says that the nearest
21 turbine is turbine eight up here and I'm looking at
22 model receptor number 11, which is the Jay Altinger --

23 A. Yes.

24 Q. Property. So I'm wondering if you can explain
25 this to me because we have nearest turbine, turbine

1 eight and then we have a line to what appears to be a
2 number 11. So can you just explain what that means?

3 **A. Sure. The line is pointing to 11. 11 is the**
4 **location of the receptor and these results are**
5 **describing the amount of shadow flicker at that**
6 **particular location. And then the distances -- it's --**
7 **the line is not referring to the particular wind turbine**
8 **or the distance to that turbine. It's just identifying**
9 **that receptor.**

10 Q. But we agree that the highest is projected or
11 possible shadow flicker would affect a nonparticipating
12 landowner; correct?

13 **A. That is correct. They are nonparticipating.**

14 Q. Anymore adverse effects to humans from shadow
15 flicker?

16 **A. The simple answer is no. There's some concern at**
17 **times about causing epileptic seizures but they -- the**
18 **wind turbines do not spin at a rate fast enough to**
19 **trigger epileptic seizures.**

20 Q. I have no further questions.

21 MR. DAWSON: Mr. Lien?

22 MR. LIEN: I have no questions, Your
23 Honor.

24 MR. DAWSON: Commissioner Fedorchak.

25 BY MS. FEDORCHAK

CROSS EXAMINATION

1 Q. Thank you. I just have a -- I think I just have
2 one question on sound and that is on page three of the
3 direct testimony from Mr. Hessler. Let you pull that
4 out. You talked a little bit to Brian about this but I
5 just want to follow up. He recommends that the company
6 do this potential noise project on the community so you
7 have like a baseline study and then design a project --
8 so the way I'm reading it is that there's a baseline
9 study and then you design the project so that the total
10 increase is five dBA as you can kind of apply that to
11 that sound generated for the project. Am I reading that
12 right? Is that what he's recommending? Five dBA
13 increases an ideal design goal because it limits the
14 provenance and sound liability of the project relative
15 to the background level, so --

16 **A. Yes, your description is accurate.**

17 Q. Okay. So you guys didn't do this. This is not
18 required so it's not a deal breaker, but I'm curious if
19 you agree that that's a good goal and if that's maybe
20 what this is going to be anyway? Could you say what the
21 total impact of the project might be on the -- on the
22 sound level in this area?

23 **A. It's difficult to say because we haven't**
24 **conducted an ambient sound level measurement program. At**
25 **the -- what I can say is that the sound levels vary in a**

1 community. So during periods when wind is generally low,
2 you'll have lower sound levels as there would not be a
3 particular sound source, highway or industrial facility.
4 So those -- and rustling vegetation, your sound levels
5 can drop certainly into the 20s. There are times where
6 the wind's blowing and you have rustling vegetation or
7 you have a car pass by and your sound levels will
8 increase. So there's going to be a pretty significant
9 range in the sound levels in the community from twenties
10 to fifties just to --

11 Q. But could you model it so that the impact on top
12 of whatever the baseline sound is, is 5 dBA?

13 A. The challenges of saying what that background
14 level is because it's -- it's always varying, so --

15 Q. If you're doing a baseline study, why do you
16 have to assign it to anything? It's just what it is. And
17 then whatever you add to that is the sound coming from
18 the -- your facility?

19 A. Well, there's -- there's different metrics and
20 if you collect sound levels over a series of hours,
21 those hourly -- not only will the sound levels vary each
22 hour or each period, they'll also vary depending on what
23 metric you pick, so you may pick the L90 sound level,
24 which is an exceeding sound level. You may pick the Leq
25 sound level, so that's why -- and it'll be different

1 wind speeds. So the challenge is always, well, what's
2 the appropriate number to pick to say is the ambient. If
3 you were to say ambient range from 25 to 50, you could
4 then say, well, a 47 is within that range of ambient,
5 but that doesn't necessarily put it into full context
6 because there will certainly be periods where at some
7 locations that are closer to the wind turbines the wind
8 turbines will be audible, so there will be a, by
9 definition, a delta or increase over the ambient because
10 you can hear that particular sound over the existing
11 ambient sources.

12 Q. Well, I'm not gonna pursue this a lot more at
13 this this hearing, but sound is something that the
14 commission is getting more and more engaged in. It's an
15 area that I think the communities are -- it's really
16 difficult for them to anticipate what the impact is
17 going to be on their sound and it's impossible to get it
18 back after the fact. So we want to make sure that
19 everyone's going in with full knowledge of what the
20 impacts are and doing the very best to minimize those
21 and prepare to minimize those so the impact is very
22 little and that everyone's kind of happy with the
23 project when its concluded so. But thank you for your
24 input. Appreciate it.

25 MR. DAWSON: Commissioner Kroshus?

Public Hearing
3/8/2019

Page 97

1 BY MR. KROSHUS CROSS EXAMINATION

2 Q. I just have a couple of questions because, you
3 know, for us sitting and listening in on the hearing
4 right now you've heard a lot of technical terms and so
5 I'm going to break it down into something real simple
6 questions or just simple questions because that's how I
7 operate the best anyway. At the end of the day you can
8 throw out a lot of different terms but the 30 hours
9 flicker shadow, that's based on the European model;
10 correct?

11 **A. It goes back to Europe and specifically Germany.**
12 **Germany had a -- still has a 30 hours per yield worst**
13 **case limit and as wind energy projects were being**
14 **developed and built in the U.S., what was applied was**
15 **instead of a worst case number of 30 hours of expected,**
16 **and that was then used as an evaluation criteria**
17 **throughout the U.S. and has been adopted as regulations**
18 **formally in some communities.**

19 Q. When I look up there and think of a European
20 model, you're talking about society that is further
21 along in terms of renewables. And I think part of that
22 is they, as a whole, seem to be more receptive, if you
23 will, for a variety of reasons. It's a different
24 culture. So you think 30 hours is the right number or is
25 that more a tolerant number based on a culture across

1 the ocean versus maybe a west modern culture or that
2 type of thing?

3 **A. I think initially certainly the Europeans had a**
4 **head start, but I think over the time I've been involved**
5 **in wind energy projects, there -- that 30 hours per**
6 **years is used quite often, so I would -- I would say**
7 **that it's always that balance that needs to get struck**
8 **between sort of zero of anything versus what's an**
9 **acceptable amount. And I think that's -- that 30 hours**
10 **has been previously used it enough jurisdictions and has**
11 **been generally accepted that I would feel that that's an**
12 **acceptable way to limit shadow flicker from a project.**

13 **Q. One of the things that I constantly am reminded**
14 **of in my current role is the fact that -- and I alluded**
15 **to it in my opening is that this is a multigenerational**
16 **facility. It's not just about today or a few years. This**
17 **is for a long time. So I'm always looking at these**
18 **particular decisions, I'm looking at the body of**
19 **evidence and realizing that in ten years, 20 years, 30**
20 **years, that's like -- it's like the Nielsen rating of**
21 **did we do it right? And, you know, I don't want to read**
22 **about sound being a problem 20 years from now or 15**
23 **years from now. I didn't want to read about a pipeline**
24 **that wasn't, you know, maybe we missed something, which**
25 **I don't believe we do. I think we're very thorough, but**

1 what if we did and then I'm reading that and we missed
2 it, you know, we should have had, you know, more of this
3 and more of that in terms of the requirements. So how do
4 we really know when you're saying that there is no -- I
5 think you had talked about epileptic seizures and no
6 correlation or no basis to say that, but what about the
7 other concerns that people, you know, whether it's sound
8 or shadow flicker, dizziness, feeling nauseous, that
9 type of feeling, what's your response to that? How do
10 we know?

11 **A. Well, I think to shadow flicker specifically**
12 **that is pretty well, as far as health effects go, just**
13 **limited to, I would call a nuisance type of issue where**
14 **someone -- there's that change in brightness in the room**
15 **and someone doesn't want to experience that for the --**
16 **for the period of time that it's going on. That duration**
17 **does vary. So it's not as if it's all day and it's not**
18 **every day. It could be, you know, 10 minutes, 30**
19 **minutes, hour and it could be particular months during**
20 **the year, either in the morning or the evening. It**
21 **really depends on where that home is located to the**
22 **particular wind turbines if it's a morning event or an**
23 **afternoon/evening type of event, so that's limited to a**
24 **nuisance as far as concern. Sound levels have been**
25 **studied. There have been various publications that look**

1 into health effects from sound and specifically wind
2 turbines. Familiar with a variety of those studies,
3 although that's not the mindfulness of my employment,
4 but I am aware of and read those and are familiar with
5 them and the weight of the evidence shows that the
6 concerns and specifically low frequency infrasound that
7 those low frequency infrasound, they're present, so if
8 you monitor and measure sound levels from a wind
9 turbine, you'll see that there is contribution of lower
10 frequencies in infrasound. They're not at levels to
11 trigger concerns with respect to health. So
12 cardiovascular disease, the other things, tinnitus,
13 dizziness, other claims that you hear, just not been a
14 relationship established through the peer review journal
15 studies and articles.

16 Q. Well I'm not going to ask anymore questions, but
17 Commissioner Fedorchak expressed this very accurately
18 and that is we've drilled down in this particular area
19 as well as all siting areas as a part of case review to
20 work sessions after this particular hearing which is
21 about gathering evidence and hearing from the different
22 parties and especially the public as I mentioned
23 earlier. So don't take this as we're just asking a few
24 questions and not going to continue to focus on this if
25 anyone is wondering. It's something we're going to

1 continue to review extensively as part of the
2 application. And with that, I don't have anymore
3 questions?

4 MR. DAWSON: Ms. Furey, any redirect?

5 MS. FUREY: No, Your Honor?

6 MR. DAWSON: Any further questions?

7 MR. SCHMIDT: No, Your Honor.

8 MR. DAWSON: Seeing no further questions

9 --

10 A. I would just like to make one additional
11 statement to kind of follow up on health effects just to

12 --

13 MR. DAWSON: I'll allow it.

14 A. Thank you. I did want to add that I was
15 personally involved in a peer review journal study on
16 both frequency and infrasound for wind turbines and we
17 did look as part of that study a 1.5 megawatt and a 2.3
18 megawatt wind turbine and compared it to various ANSE
19 criteria and other international standards looking
20 specifically at both frequency and infrasound and found
21 that those levels for those wind turbines had 1,000 feet
22 from them met those various criteria. So just one
23 example just to elaborate on one specific experience in
24 studying those particular issues.

25 MR. DAWSON: Are there any questions as a

1 result of what he just said?

2 MS. FUREY: No, Your Honor.

3 MR. SCHMIDT: What was the name of the
4 study?

5 A. It was in -- I actually have it here. So just so
6 I get the name exactly. It's in the Noise Control
7 Engineering Journal dated March, April, 2011. It's Low
8 Frequency Noise and Infrasound with Wind Turbines with
9 three authors and I was one of the authors.

10 MR. SCHMIDT: I have no further questions.

11 MR. DAWSON: Any further questions? Seeing
12 none, you may step down.

13 A. Thank you.

14 MR. DAWSON: Ms. Furey, how long do you
15 expect your next witness will take, your portion?

16 MS. FUREY: Quite a bit of time, Your
17 Honor. At least I would estimate -- I would say 30
18 minutes to 45 minutes.

19 MR. DAWSON: Any feelings on that?

20 MS. FEDORCHAK: Were you thinking, Judge,
21 that we would take the witness and then break and then
22 cross?

23 MR. DAWSON: Correct.

24 MS. FEDORCHAK: I think that's a good
25 plan.

Public Hearing

3/8/2019

Page 103

1 MR. DAWSON: Okay. We'll go ahead with
2 your witness.

3 MS. FUREY: Sounds great. Thank you. We
4 would call Dr. Kimberly Wells.

5 MR. DAWSON: Dr. Wells, you were here for
6 my previous admonition of perjury?

7 MS. WELLS: Yes.

8 MR. DAWSON: Do you understand what
9 perjury is and the penalties for it?

10 MS. WELLS: I do.

11 MR. DAWSON: Understanding so, do you
12 promise or swear that the testimony that you're about to
13 give will be the truth, the whole truth, and nothing but
14 the truth?

15 MS. WELLS: I do.

16 MR. DAWSON: You may begin.

17 BY MS. FUREY DIRECT EXAMINATION

18 Q. Thank you. Please state your name, by whom you
19 are employed and your business address?

20 **A. My name is Kimberly Wells. I am employed by**
21 **NextEra Energy Resources. My business address is 708**
22 **Main Street, 10th Floor, Houston Texas 77002.**

23 Q. What is your position with NextEra?

24 **A. I am senior manager of environmental services**
25 **responsible for the mid continent region that includes**

1 the state of North Dakota. It is my responsibility to
2 provide oversight of environmental permitting, including
3 environmental consulting.

4 Q. What is your educational background?

5 A. I received a Bachelor's of science in natural
6 resource management from the University of Arizona and
7 Master of Science in fisheries and wildlife ecology from
8 Oklahoma State University and a PhD in fisheries and
9 wildlife sciences from the University of
10 Missouri-Columbia. I also certified wildlife biologist
11 and wetland delineator.

12 Q. What is your professional experience?

13 A. I have over 19 years of environmental permitting
14 experience as both a consultant and then environmental
15 manager in the renewable energy industry. During this
16 time, my primary responsibilities have included
17 permitting and licensing projects on public and private
18 lands in compliance with state and federal environmental
19 laws.

20 Q. Were you involved in the preparation of the
21 project's application?

22 A. Yes. My colleague was Carolyn Stewart and I
23 directed and supervised the consultants responsible for
24 preparing the applications and conducting the
25 environmental studies that have been submitted to the

1 commission. Ms. Stewart directed the cultural resource
2 studies as well as the Tribal outreach. I drafted
3 consultants that conducted the wetland, wildlife, sound
4 and shadow flicker, and natural resource studies and
5 prepared the applications.

6 Q. Please briefly summarize the purpose of your
7 testimony today?

8 A. The commission sets forth criteria to evaluate a
9 proposed wind energy and transmission project.
10 The criteria are classified as exclusion areas, as
11 avoidance areas, selection criteria and policy criteria.
12 I will describe the manner in which we had considered
13 the commission's criteria and selection and design of
14 the project. I will also summarize the results of the
15 environmental analyses which demonstrate that the
16 project will have no have long-term irreversible effects
17 on the environment.

18 Q. With respect the commission's site criteria, can
19 you please describe any exclusion areas that are present
20 within the project area and/or transmission line
21 corridor?

22 A. Exclusion area present in the wind project area
23 include farmland of statewide importance and
24 archaeological and historical sites which have been
25 avoided by the wind project. Exclusion areas present in

1 the transmission line corridor include archaeological
2 sites which are being avoided by the transmission line.

3 Q. What impact will the wind project have to
4 farmland of statewide importance?

5 A. The farmland of statewide importance is located
6 within the wind project area. The wind project area
7 encompasses approximately 3,225 acres of farmland of
8 statewide importance. Estimated permanent impacts to
9 farmland of statewide importance are approximately 13
10 acres which is less than .16 percent of the project
11 area.

12 We coordinated with the participating landowners to
13 find solutions to infrastructure placement that balance
14 avoidance of environmental constraints with landowner
15 farming patterns and desired future land use. In this
16 respect, we believe that the farmland of statewide
17 importance expected to be removed from use is of such a
18 small acreage that it will have a negligible impact on
19 the agricultural production.

20 Q. Please describe how Burke Wind excluded
21 archaeological and historical sites from the project?

22 A. Burke Wind identified archaeological and/or
23 historical sites in and near the projects through a
24 Class I literature search. A Class II reconnaissance
25 inventory for architectural resources, a Class III

1 cultural resources inventory and through Tribal outreach
2 and coordination. All sites that are eligible or
3 potentially eligible for listing on the National
4 Register of historic places are of tribal or cultural
5 significance or unevaluated sites have been avoided by
6 project infrastructure.

7 Q. Please describe the status of architectural
8 reconnaissance inventory Burke Wind undertook to address
9 potential impacts on historical sites?

10 A. We conducted a class II and class III
11 architectural history study within two miles of the wind
12 project turbines and submitted the architectural history
13 survey report to the State Historical Society. The
14 report concluded that there are no architectural sites
15 eligible for listing under the National Register of
16 Historic Places, thus no impacts to architectural sites
17 are expected. A summary of the architectural history
18 survey report was filed in the docket and is marked as
19 exhibit 14. The State Historical Society concurred with
20 the report conclusions on December 4, 2018 and that
21 letter was submitted to the Commission on January 15,
22 2019 which is marked as exhibit 15.

23 Q. Please describe the status of the class II
24 cultural resources inventory Burke Wind undertook to
25 address the potential impacts on archaeological sites?

1 A. The class III cultural resources inventory
2 completed by archaeologists from AECOM also included
3 surveys by Tribal surveyors from multiple tribes. The
4 full cultural resource surveys submitted to the State
5 Historical Society covered all aspects of the field
6 surveys and cultural resource evaluation, except for two
7 collection area locations and two existing access road
8 locations, which comprise less than point 02 percent of
9 the wind project. These unsurveyed areas related to two
10 MET towers and a recent landowner request to shift road
11 locations. Once collection activities and surveys for
12 these areas are completed, the results of these efforts
13 will also be submitted to the State Historical Society
14 in an addendum for concurrence. State Historic Society
15 concurrence will also be filed with the commission for
16 these areas prior to starting construction in these
17 specific areas.

18 The archaeology survey report for the wind project
19 was submitted to the State Historical Society for review
20 and is marked as exhibit 15. Concurrence was received on
21 February 26, 2019. The concurrence letter was submitted
22 to the commission and is marked as exhibit 17.

23 The archaeology survey report for the transmission
24 line was submitted to the State Historical Society for
25 review and is marked as Exhibit 18. Concurrence was

1 received on February 26, 2019. The concurrence letter
2 was submitted to the commission and is marked as exhibit
3 19.

4 The transmission line cultural resource surveys
5 submitted to the State Historical Society covered all
6 aspects of the field surveys and cultural resource
7 evaluation except for 15 temporary, cable pulling
8 locations which comprises 2.0 percent of the
9 transmission line corridor.

10 Q. When will Burke Wind survey the remaining
11 unsurveyed areas?

12 A. All remaining unsurveyed areas will be surveyed
13 in the Spring and submitted to the State Historical
14 Society for concurrence. State Historical Society
15 concurrence on these areas will be filed with the
16 commission and no construction will occur in these areas
17 prior to survey completion and SHPO concurrence filing.

18 Q. Will the projects impact the identified
19 archaeological and historical sites?

20 A. No. Burke Wind has designed the projects to
21 avoid impacts to sites eligible or potentially eligible
22 for listing on the National Register of Historic Places,
23 sites that may be deemed culturally sensitive, tribally
24 significant sites and sites that have not been evaluated
25 for National Register eligibility. In addition, Burke

1 Wind incorporated avoidance buffers recommended by AECOM
2 and Tribal surveyors and approved by the State
3 Historical Society.

4 Q. Are there any additional exclusion areas located
5 within the projects?

6 A. No.

7 Q. With respect to the commission's siting
8 criteria, can you please describe an avoidance areas
9 that are present within the wind project area and/or the
10 transmission line corridor?

11 A. Yes. Avoidance areas within the wind project
12 area include historical resources that were not
13 otherwise designated as exclusion areas as well as
14 woodlands and wetlands.

15 Avoidance areas in the transmission line corridor
16 include areas that are geologically unstable, meaning,
17 landslide areas and one reclaimed quarry, and a
18 residence that is located 450 feet from the transmission
19 line centerline and 390 feet from the outer edge of the
20 widest transmission structure, respectively. Pursuant to
21 the commission's regulations, Burke Wind has obtained a
22 written waiver from the owner of this residence which
23 has been filed with the commission and is marked as
24 exhibit 20. This landowner is nonparticipating and has
25 not voiced any objection to the project.

1 Q. Please explain the wind project' potential
2 impact on historical resources that are not otherwise
3 designated as exclusion areas?

4 A. With respect to the wind project, sites with
5 potential cultural significance are present within the
6 project area. Burke Wind has avoided all direct impacts
7 to sites with potential cultural significance. As a
8 result, adverse impacts are not anticipated.

9 Q. Please explain the projects potential impact on
10 wetlands?

11 A. No USACE jurisdictional wetlands will be
12 temporarily or permanently impacted by the wind project
13 or the transmission line project. Therefore, a Section
14 404 permit is not required for the projects.

15 Wetland delineations were conducted between May and
16 November, 2018 or both the original 300 megawatt project
17 and the 200 megawatt project and these reports are
18 provided in exhibits 32 and 33. Within the wind project
19 area, 15 jurisdictional wetland's were delineated. All
20 15 wetlands cross collection lines and will be bored
21 under, thus avoiding any temporary or permanent impacts
22 to jurisdictional wetlands. Documentation of no impacts
23 is shown in the wetland impact memorandum marked as
24 exhibit 31.

25 For the transmission line project, seven

1 potentially jurisdictional wetlands were identified
2 within the transmission line project corridor. The
3 transmission line has been designed to span these even
4 potentially jurisdictional wetlands, thus avoiding
5 temporary and permanent impacts to the wetlands. Wetland
6 delineations for the transmission line are shown in
7 exhibit 34.

8 We have also voluntarily elected to avoid temporary
9 and permanent impacts to isolated prairie potholes that
10 are not within the jurisdiction of USACE to the maximum
11 extent practicable. There are no impacts to isolated
12 prairie potholes from the transmission line project. It
13 is anticipated that the wind project will temporarily
14 impact approximately five acres and will permanently
15 impact one acre of isolated prairie potholes. All
16 isolated prairie potholes that we determined provided
17 suitable stopover habitat for whooping cranes were
18 completely avoided.

19 Q. Please explain the projects' potential impact on
20 woodlands?

21 A. With respect to the wind project, trees and
22 shrubs are sparse and those woodlands that do exist will
23 be avoided by wind project infrastructure to the extent
24 practicable. Field surveys conducted for the
25 transmission line corridor identified a few small

1 patches of woodland trees along wetlands and drainages
2 associated with White Earth River. No infrastructure
3 will be sited in woodlands and impacts to trees will be
4 avoided to the extent practicable. Trees and shrubs
5 removed during construction will be inventoried and
6 mitigated per the commission's tree and shrub mitigation
7 specifications pursuant to Burke Wind's certifications
8 that were filed with the commission and are marked
9 exhibits three and six. Therefore, adverse impacts to
10 woodlands are not anticipated.

11 Q. Regarding the commission's selection criteria,
12 would you please identify potential adverse effects?

13 A. The wind project will permanently impact
14 approximately 66 acres of land for the life of the
15 project. Construction of the wind project will
16 temporarily impact approximately 1,273 acres associated
17 with the construction easement that will be mostly
18 reclaimed after construction.

19 For the transmission line project, only
20 approximately point 05 acres of land will be permanently
21 impacted during operations as a result of pole and
22 structure placement. Construction of the transmission
23 line projects will temporarily impact approximately 729
24 acres, primarily associated with temporary access roads
25 or work space within the transmission line project

1 corridor.

2 With regard tot eh other selection criteria for the
3 wind project, minimal, if any, adverse impacts are
4 anticipated.

5 With respect to the commission's selection criteria
6 for the transmission line, the transmission line will be
7 visible to landowners and travelers along roadways but
8 existing transmission lines are already present in the
9 viewshed and the transmission line project will not
10 result in a significant change to the existing visual
11 setting.

12 Q. Has Burke Wind evaluated wildlife impacts?

13 A. Yes, as I and Mr. Derby will testify.

14 Q. What aspects of the wildlife studies will you
15 discuss versus what will Mr. Derby discuss?

16 A. I will present the results of our wildlife
17 studies and summarize our coordination with the wildlife
18 agencies. Mr. Derby will provide context for
19 interpreting those results in relation to the scientific
20 literature and his 15 years of experience with wind
21 projects in North Dakota and the Great Plains.

22 Q. Please describe the wildlife studies that Burke
23 Wind conducted?

24 A. Burke Wine and its consultants completed
25 multiple desktop assessments and field studies to adhere

1 to U.S. Fish and Wildlife Service Land-Based Wind Energy
2 Guidelines, Eagle Conservation Plan Guidance, and Avian
3 Power Line Interaction Committee recommendations. The
4 purpose of these studies was to understand wildlife use
5 of project area so this information could be used to
6 avoid and minimize potential impacts to plant
7 communities, wildlife habitat, and wildlife during
8 project construction and operation.

9 The studies included desktop reviews to identify
10 potentially sensitive environmental areas including
11 native prairie and suitable habitat for Dakota skipper,
12 whooping crane and northern long-eared bats. In
13 addition, field surveys were conducted to evaluate
14 potentially suitable habitat for the presence of Dakota
15 skipper; document avian use, eagle use and raptor nests;
16 and document Sharp-tailed Grouse leks. Field surveys
17 also included a breeding bird assessment for
18 grassland-associated bird species, waterfowl, and other
19 wetland associated bird species.

20 Q. Please describe how Burke Wind followed the
21 USFWS Voluntary Land-Based Wind Energy Guidelines (WEGs)
22 during the siting process?

23 A. We designed our siting process following the
24 three pre-construction tiers described in the 2012
25 USFWS wind energy guidelines. These three tiers include

1 progressive levels of decision-making that begin in tier
2 one with desktop landscape-scale data, move to tier two
3 with site visits and end in tier three with
4 site-specific field studies. The WEGS describe decision
5 points after each tier that relate to using data to
6 assess whether potential species of concern are or could
7 be present, the predicted probability of significant
8 adverse impacts and whether any potential impacts can be
9 avoided, minimized or mitigated. Decision outcomes at
10 each tier include choices such as abandoning further
11 development of the site, gathering site-specific data to
12 address uncertainty, and/or modifications of the project
13 to avoid impacts or mitigating any remaining adverse
14 impacts. Burke Wind considered these outcomes at each
15 tier and elected to proceed with development because
16 impacts could be sufficiently avoided, minimized or
17 mitigated.

18 Q. Did Burke Wind re-evaluate its studies when it
19 reduced the wind project size from 300 megawatts to 200
20 megawatts?

21 A. Yes. As discussed earlier by Mr. Hart, we
22 reduced the wind project from 300 megawatts to 200
23 megawatts primarily to address environmental concerns
24 that were raised by the U.S. Fish and Wildlife Service
25 and the North Dakota Game and Fish Department related to

1 the original project's proximity to Lostwood National
2 Wildlife Refuge in Burke County and feedback from
3 landowners and townships.

4 Reducing the wind project from 300 megawatts to 200
5 megawatts moved the wind project significantly further
6 away from Lostwood and significantly shrank the wind
7 project area. The reduction in the project area is shown
8 on the display map that is marked as exhibit 37 which I
9 believe over to my right here and the 300 megawatt
10 design of the project, the closest wind turbine to
11 Lostwood was approximately 1.3 miles away; by reducing
12 the size of the project to 200 megawatts, the closest
13 wind turbine to Lostwood is now over seven miles away.

14 To address this reduction in project size, we
15 reevaluated our original wildlife surveys and our
16 studies and updated them or revised them as appropriate
17 term of new contracts.

18 Q. Please briefly describe the results of the
19 wildlife surveys with respect to raptor and avian use in
20 the wind project?

21 A. General aviation use surveys were conducted in
22 the spring and fall of 2017 and the spring of 2018 in
23 the project area. Eagle use surveys occurred over one
24 year from April, 2017 through March 2018. Six Bald Eagle
25 detections and one Golden Eagle detection were recorded

1 during standardize use surveys within the project area.
2 The pre-construction eagle and aviation use study report
3 summarizes these results for both the 300 megawatt and a
4 200 watt projects as shown in exhibit 30.

5 Q. With regard to the breeding bird assessment and
6 the wind project?

7 A. A breeding bird assessment was completed for
8 grassland-associated avian species and for
9 wetland-associated avian species including waterfowl in
10 June and July of 2017. Species composition was
11 consistent with avian species composition generally
12 found in mixed agricultural and grassland habitats in
13 North Dakota. Species richness and relative abundance
14 for grassland-associated avian species tended to be
15 highest at survey locations in the eastern half of the
16 original study area. These locations were within the
17 previous 300 megawatt project area and are now avoided
18 and not included in the 200 megawatt project area any
19 longer. These studies are shown in exhibit 29.

20 Q. With respect to the Grouse Lek surveys and both
21 the wind and transmission projects?

22 A. Ground-based Sharp-tailed Lek surveys and aerial
23 Sharp-tailed Grouse lek surveys were conducted in April
24 2017 in the wind project area and in April 2018 for the
25 transmission line project. Six confirmed leks were found

1 within the wind project area and no leks were detected
2 in a transmission line corridor. Turbines will be sited
3 at least a half mile from confirm leks. The wind project
4 study for both Grouse leks and raptor nests for the 200
5 megawatt project is shown as exhibit 25; this study
6 replaced the prior analysis submitted with the 300
7 megawatt project. The transmission line project study is
8 shown in Appendix C of exhibit one which is the
9 transmission line application.

10 Q. With respect to the aerial raptor nest survey
11 for the wind project?

12 A. An aerial raptor nest survey for the wind
13 project was conducted in April 2017. No eagle nests or
14 eagle concentration areas were detected during the
15 aerial survey or during subsequent avian surveys. Six
16 red-tailed hawk and five great horned owl nests were
17 observed within the wind project area. No turbines will
18 be sited within a quarter mile of previously documented
19 active raptor nests. As I just mentioned, the aerial
20 raptor nest survey results for the 200 megawatt project
21 are included in the report marked as exhibit 25.

22 Q. With respect to the aerial raptor nest survey
23 for the transmission line project?

24 A. An aerial raptor nest survey for the
25 transmission line project was conducted in April 2018

1 across the proposed transmission line construction
2 corridor. One active great horned owl nest and one
3 probable Ferruginous hawk nest were found within the
4 0.25 miles of the project corridor. No eagle nests were
5 found during the 2018 aerial survey. No construction
6 activities will occur within a quarter mile from raptor
7 nests from March through July to the extent practicable.
8 This study is shown in Appendix C in exhibit one which
9 is the transmission line application.

10 Q. What did the wildlife studies show with respect
11 to the likelihood of threatened or endangered species of
12 critical habitat occurring in the projects?

13 A. No federally threatened or endangered avian
14 species were observed using habitat within the project
15 or a larger study area during use surveys.

16 Q. With regard to whooping cranes?

17 A. Three whooping cranes were incidentally observed
18 flying over the project area outside of surveys, well
19 above the rotor swept zone in April 2017.

20 Whooping cranes were not observed again flying over
21 the projects and were not observed stopping over within
22 the project area during avian use surveys. A whooping
23 crane habitat assessment was originally conducted for
24 the 300 megawatt project and the transmission line
25 corridor, which was reconfirmed through an addendum

1 which states that the information contained in the
2 original report for the 300 megawatt project is still
3 applicable to the amended 200 megawatt project area.
4 Both the addendum and the original assessment report are
5 marked together as exhibit 27.

6 The whooping crane habitat suitability assessment
7 was completed following methodology developed by The
8 Watershed Institute. This assessment showed that there
9 are no potentially suitable stopover wetlands or
10 whooping cranes within the wind project construction
11 easement and there are seven along the transmission line
12 corridor that intersect the centerline and will be
13 avoided by spanning over them. No direct impacts to
14 these suitable wetland's will occur from the projects as
15 shown in figure 18 of exhibit four which is the amended
16 application for the 200 megawatt project. As stated in
17 exhibit one and shown on figure three of exhibit one,
18 all wetlands including all suitable stopover habitat for
19 whooping cranes will be spanned by the transmission
20 line.

21 Finally, I would note that there is no federally
22 designated whooping crane critical habitat within or
23 near the project or in the state of North Dakota. No
24 impacts to whooping cranes are anticipated as project
25 infrastructure has been sited to avoid suitable stopover

1 habitat, cranes have been documented to avoid wind
2 turbines and a monitoring program will be conducted
3 during the operations whereby wind turbines within one
4 mile of observed whooping cranes will be voluntarily
5 shut down until our operational staff can confirm
6 whooping cranes have left the area. For the transmission
7 line, project infrastructure has been sited to avoid
8 impacts to suitable stopover habitat and bird diverters
9 will be installed on the transmission line following
10 recommendations by the Avian Power Line Interaction
11 Committee suggested practices. Mr. Derby will provide
12 more information on this topic as a part of his
13 testimony.

14 Q. With regards to the Dakota Skipper?

15 A. The Dakota skippers are federally listed as a
16 threatened species. Critical habitat has been federally
17 designated in North Dakota but not in Burke or Mountrail
18 Counties where the projects are looking at it. There are
19 three historical records of Dakota Skipper documented in
20 Burke County, but all are outside of the maximum
21 documented dispersal range from the projects. In
22 Mountrail County, there have also been three documented
23 occurrences that were located farther away from the
24 Projects than the maximum documented dispersal range.

25 Federally permitted Dakota Skipper biologists with

1 SWCA Environmental Consultants conducted a habitat
2 survey to determine the potential Dakota Skipper habitat
3 occurred within the wind project area and transmission
4 line corridor. The Dakota Skipper habitat assessment
5 report covers both the 200 megawatt project and the
6 transmission line and is marked as exhibit 28. Habitat
7 surveys began with a desktop assessment of the projects
8 followed by field surveys between September 2017 and
9 December 2018. Approximately 98 percent or all but
10 approximately 11 acres were surveyed during the growing
11 season. Ten of the 11 acres surveyed outside of the
12 growing season were hayed substation parcel where the
13 federally permitted biologists documented primarily
14 non-native species indicating habitat is unlikely to be
15 suitable. There are point 87 acres of field verified
16 suitable habitat in the transmission line corridor. All
17 suitable habitat has been avoided by project design
18 either through micro-siting, spanning over it in the case
19 of the transmission line or by boring under suitable
20 habitat to avoid surface impacts. Burke Wind will also
21 implement additional mitigation measures to avoid
22 surface impacts to field verified Dakota Skipper habitat
23 as I will discuss in more detail later in my testimony.

24 Q. With regard to the Northern Long-eared Bat.

25 A. Burke Wind conducted a desktop analysis of

1 potential risks for bat species including the federally
2 threatened northern long-eared bat. Based on results
3 that indicate low bat roosting habitat availability, the
4 absence of known hibernacula near the project and
5 statewide acoustic and mist netting surveys, northern
6 long-eared bat occurrence within the project is possible
7 but unlikely and no impacts are anticipated. A bat
8 habitat assessment was conducted on the original 300
9 megawatt project area which was reconfirmed through an
10 addendum, which states that the information contained in
11 the original report is still applicable to the amended
12 200 megawatt project area. Both the addendum and the
13 original assessment are marked together as exhibit 26.

14 Q. Which agencies has Burke Wind coordinated with
15 that may have interest in the projects?

16 A. Burke Wind sent project notification letters to
17 the 27 agencies and officers designated in North Dakota
18 Administrative Code Section 69-06-01-05. Burke Wind has
19 coordinated with numerous local, state and federal
20 agencies and tribes. These agencies include the North
21 Dakota Department of Trust Lands, North Dakota
22 Department of Game and Fish. The US Army Corps of
23 Engineers and the US Fish and Wildlife Service. Outreach
24 letters were also sent to 24 Native American Tribes of
25 which eight interested tribes engaged in discussing the

1 project.

2 Q. Would you please discuss Burke Wind's tribal
3 outreach efforts?

4 A. Our initial outreach efforts began on July 20,
5 2017 with an outreach letter sent to 24 tribes in North
6 Dakota, South Dakota, Montana, Wyoming, and Minnesota.
7 Eight tribes including the Cheyenne River, Northern
8 Cheyenne, Rosebud, Sisseton-Wahpeton, Spirit Lake,
9 Standing Tock, Turtle Mountain and Yankton Sioux
10 responded and expressed interest in the project.

11 Q. What resulted from the meeting with the various
12 tribes?

13 A. Numerous discussions and meetings have taken
14 place with eight interested tribes to discuss
15 micrositeing as well as cultural resource survey report
16 content and format. Standing Rock and Rosebud tribal
17 representatives participated in micrositeing the proposed
18 wind turbine locations accounting for sites with
19 cultural and/or religious significance to the tribes.
20 Based on this information, Burke Wind revised the
21 project layout. Tribal surveyors from Rosebud, Turtle
22 Mountain, Northern Cheyenne and Spirit Lake tribes
23 completed joint tribal and AECOM field surveys for
24 cultural resources and sites of cultural and/or
25 religious significance to tribes. AECOM provided the

1 combined results and avoidance recommendations from the
2 surveys to Burke Wind which were then accounted for in
3 revising the project layout. The results of the surveys
4 were documented in the archeology survey report that was
5 submitted to the State Historical Society. Burke Wind
6 has sited project infrastructure to avoid impacts to all
7 sites of cultural and/or religious significance to
8 tribes.

9 Q. Please describe the interactions you have had
10 with the North Dakota Game and Fish Department and the
11 U.S. Fish and Wildlife Service?

12 A. Burke Wind has been coordinating with the
13 wildlife agencies since the fall of 2016. We discussed
14 pre-construction study design with the wildlife
15 agencies, sought their input on study designs and
16 protocols, shared all of our preliminary and final
17 results and reports and have worked to consider and
18 implement as many of their recommendations as possible
19 in the projects. In October of 2018 we met with both
20 agencies and shared that we had voluntarily reduced the
21 project from 300 megawatt to 200 megawatt in large part
22 to address concerns about proximity to Lostwood National
23 Wildlife Refuge. Most recently in 2019 we met with both
24 agencies to identify our impacts, summarize our
25 avoidance, minimization and mitigation measures

1 including a meeting on February 15, 2019 to propose a
2 voluntary offset package, a conference call to discuss
3 the offset package and follow up on February 26, 2019
4 and a followup-letter summarizing the proposed offset
5 methodology on March 5, 2019. We continue to engage with
6 both agencies to share information and discuss the
7 voluntary offset package we have provided.

8 Q. Has any agency raised concern regarding
9 construction of the projects?

10 A. In regard to the North Dakota Department of Game
11 and Fish and U.S. Fish and Wildlife Service, these
12 agencies have expressed concerns and have provided
13 recommendations to address their concerns with both
14 projects. I will address the most recent recommendations
15 from each. The North Dakota Department of Game and Fish
16 provided a letter most recently dated May 27, 2018
17 expressing concern about several aspects of the 300
18 megawatt project location. The Department of Game and
19 Fish was concerned about the project locations, amount
20 of native prairie present, project location within the
21 whooping crane corridor, existing breeding waterfowl
22 density and State Wildlife Action Plan species of
23 concern. The North Dakota Department of Game and Fish
24 also suggested that a voluntary and offset package to be
25 delivered.

Public Hearing
3/8/2019

Page 128

1 Last night we received the most recent
2 correspondence from North Dakota Department of Game and
3 Fish dated March 7, 2019 and I believe that is exhibit
4 44.

5 U.S. Fish and Wildlife Service provided a letter
6 regarding the 300 megawatt project dated November 25,
7 2018. The U.S. Fish and Wildlife Service expressed
8 concerns with the location of the 300 megawatt wind
9 project in relation to the Lostwood National Wildlife
10 Refuge and native prairie and recommended relocating the
11 project to an area that would have less impact to
12 natural resources or voluntary and offset package.
13 Yesterday received a more recent letter dated March 6,
14 2019 that expressed similar concerns.

15 Q. Dr. Well,s is that letter marked as exhibit 45?

16 A. Yes, that's correct.

17 Q. How has Burke Wind addressed the North Dakota
18 Game and Fish Department and the U.S. Fish and Wildlife
19 Service recommendations for the Project?

20 A. We incorporated the North Dakota Department of
21 Game and Fish and the Fish and Wildlife Service
22 recommendations which focused on avoiding or minimizing
23 potential impacts to wildlife into siting of the
24 project. For example, in their May 2018 letter, North
25 Dakota Department of Game and Fish raised concerns

1 around six themes including native prairie, grassland,
2 species of conservation concern, whooping cranes,
3 wetland and waterfowl impacts, eagles and sharp-tailed
4 grouse.

5 We have addressed these concerns in a number of
6 ways. Consistent with recommendations from U.S. Fish and
7 Wildlife Service and North Dakota Department of Game and
8 Fish, we approached siting with respect to the
9 hierarchy of avoidance, minimization and then
10 mitigation. We began incorporating avoidance and
11 minimization early in the planning process for both
12 projects with input from the agencies including
13 modification to design and engineering. We also
14 incorporated landowner preferences into each project's
15 layout and design. Our iterative siting process and
16 specific mitigation measures are described in section
17 seven of the wind project application and section five
18 of the transmission line application.

19 Importantly, by reducing the wind project from 300
20 megawatts to 200 megawatts, we were able to move the
21 project several miles away from Lostwood, such that the
22 Refuge is now located approximately seven miles from the
23 nearest turbine, which addressed many of the agencies'
24 concerns about potential impacts to wildlife. This
25 reduction allowed us to reduce impacts to native prairie

1 by siting the project in more fragmented grassland
2 areas. We are seeking to address any remaining agency
3 concerns by proposing a voluntary offset package to the
4 Department of Game and Fish to mitigate residual
5 impacts.

6 Q. Please describe the specific ways in which Burke
7 Wind has responded to agency concerns to native prairie
8 and grassland species of cerin in more detail?

9 A. With regard to native prairie, for the Burke
10 Wind project, and in general, native prairie or unbroken
11 grasslands has been defined as grasslands in which
12 tillage or other substantive human impacts have not
13 disturbed the sod. For instance, grasslands that have
14 never been tilled but are grazed by cattle would still
15 be considered native grasslands. Areas that were tilled
16 in past years but are not planted to grasslands would
17 not be native grasslands or unbroken grasslands. Grass
18 species are not specifically used in this definition.

19 Burke Wind initially avoided and minimized native
20 prairie impacts in the design of its 300 megawatt
21 project by removing 55 turbines from native prairie in
22 early 2018. Then, by reducing the wind project from 300
23 megawatts to 200 megawatts, Burke Wind also further
24 avoided and minimized native prairie impacts, moving
25 farther away from Lostwood and avoiding all impacts to

1 field verified Dakota Skipper habitat. Those efforts
2 have resulted in only five of the 76 planned turbines
3 being located on unbroken grassland and an additional
4 two turbines being located on hayland also considered
5 unbroken grassland. Of the 76 planned turbines, 57 of
6 them or 75 percent are located in cropland and 12 or 15
7 percent are located in broken grassland. Total permanent
8 impacts to unbroken prairie are estimated at 5.8 acres
9 or less, which is less than one percent of the wind
10 project area. These results are further illustrated in
11 the grasslands analysis memo filed with the Commission
12 on February 6, 2019 as exhibit seven.

13 Burke Wind is also seeking to address any remaining
14 agency concerns regarding native prairie by proposing a
15 voluntary offset package to the North Dakota Department
16 of Game and Fish in February 2019. This voluntary offset
17 package is intended to compensate for residual impacts
18 to native prairie that we were unable to avoid.

19 Q. With regard to grassland species of concern?

20 A. Burke Wind avoided, minimized and has mitigated
21 for potential impacts to native prairie that may provide
22 foraging and nesting habitat for grassland bird species
23 of concern. In addition, by reducing the Project from
24 300 megawatts to 200 megawatts, Burke Wind was able to
25 move the Project further away from Lostwood and into the

1 more fragmented and agricultural dominated landscapes of
2 the northwest portion of the original 300 megawatt
3 project. This moved the project further away from the
4 areas in which species richness and frequency of
5 detection for grassland bird species of conservation
6 concern was highest, further demonstrating the value of
7 voluntary avoidance and minimization measures.

8 Q. Please describe the specific ways in which Burke
9 Wind has responded to agency concerns related to other
10 wildlife impacts?

11 A. Burke Wind has avoided all impacts to suitable
12 stopover habitat for whooping cranes through
13 micrositing. Burke Wind also will follow USFWS voluntary
14 land-based wind energy guidelines and avian and power
15 line interaction committee suggested practices including
16 buying collection lines underground, marking the
17 transmission line with bird diverters, using pad-mounted
18 transformers, a voluntary curtailment procedure if
19 whooping cranes are observed near turbines during
20 migration, conducting one year of post construction
21 mortality monitoring, and training construction staff to
22 recognize and avoid federally listed species.

23 With regards to wetland and waterfowl, Burke Wind
24 has avoided all impacts to jurisdictional wetlands and
25 waters of the USACE, avoided all impacts to isolated

1 prairie potholes determined to be suitable stopover
2 habitat for whooping cranes, and avoided all other
3 impacts to isolated prairie potholes to the maximum
4 extent feasible. Burke Wind worked closely with the
5 NDGFD and the USFWS to design targeted waterfowl and
6 waterbird breeding surveys and used those to inform
7 infrastructure siting. Finally, Burke Wind's proposed
8 voluntary offset package is intended to mitigate
9 potential native habitat impacts to wetlands that will
10 also benefit waterfowl and wetland-associated birds that
11 may use these habitats.

12 With regard to eagles, Burke Wind avoided and
13 minimized impacts to native habitat such as wetlands and
14 grasslands that may provide foraging or nesting habitats
15 for eagles. However, no eagle nests were detected in the
16 projects or within a ten-mile buffer. In addition, no
17 eagle use concentration areas were detected, so risk is
18 expected to be low.

19 With regard to sharp-tailed grouse, Burke Wind
20 avoided and minimized potential impacts to native
21 prairie that may provide nesting and feeding habitat for
22 sharp-tailed grouse. In addition, Burke Wind completed
23 lek surveys and implemented half mile buffers around all
24 known leks where no turbines will be constructed during
25 the lekking season. Burke wind will avoid construction

1 to the extent practicable within a half a mile of known
2 sharp-tailed grouse lek locations during the lekking and
3 breeding season takes place from approximately April to
4 July.

5 Q. Has Burke Wind committed to any other wildlife
6 mitigation measures for the projects that you would like
7 to mention?

8 A. Yes. In addition to the efforts I have already
9 described with regard to wetlands, as I discussed, Burke
10 Wind has avoided all impacts to jurisdictional wetlands,
11 minimized potential impacts to isolated prairie potholes
12 and non-jurisdictional waters, to the extent feasible.
13 No impacts to isolated prairie potholes determined to be
14 suitable stopover habitat for whooping cranes are
15 expected due to infrastructure avoidance. By reducing
16 the project size from 300 megawatts to 200 megawatts, we
17 have significantly reduced the number of potentially
18 suitable stopover wetlands for whooping cranes within
19 the project boundary from 277 within the 300 megawatt
20 project to 40 within the 200 project.

21 With regards to land easements from the U.S. Fish
22 and Wildlife Service, Burke Wind has avoided all impacts
23 to grassland easements or protected basins managed by
24 U.S. Fish and Wildlife Service. We also continue to
25 actively coordinate with the refuge division of the U.S.

1 Fish and Wildlife Service to confirm all impacts are
2 avoided.

3 With regard to the birds and other wildlife, Burke
4 Wind is preparing a wildlife conservation strategy and
5 will share it with U.S. Fish and Wildlife Service and
6 another the North Dakota Department of Game and Fish.
7 The WCS is a framework for documenting measures to
8 avoid, minimize and mitigate potential impacts where
9 applicable to wildlife from the construction and
10 operation of the projects. As I noted, Burke Wind has
11 also committed to several measures that adhere to the
12 U.S. Fish and Wildlife Service voluntary land-based wind
13 energy guidelines and the avian power line interaction
14 committee suggested practices.

15 With regards to the Dakota skipper, I previously
16 testified that Burke Wind has avoided field-verified,
17 suitable Dakota skipper habitat with the design of both
18 the wind and the transmission projects. To mitigate any
19 impacts to the minimal amounts of field verified
20 suitable habitat within the wind project construction
21 easement and the transmission line corridor, Burke Wind
22 will place high visibility fencing, otherwise known as
23 snow fencing around field-verified suitable Dakota
24 skipper habitat that is proximate to construction areas
25 to restrict construction equipment from inadvertently

1 **disturbing these areas. Where not otherwise directly**
2 **avoided, Burke Wind will bore under and span over**
3 **field-verified suitable Dakota skipper habitat to avoid**
4 **all surface impacts to Dakota skipper habitat.**

5 Q. With regard to sharp-tailed grouse and raptors,
6 Burke Wind has site turbines at least a half a mile away
7 from active Sharp-tailed grouse leks and a quarter a
8 mile away from active raptor nests. Burke Wind has
9 committed to avoiding construction within a half mile of
10 known sharp-tailed grouse lek locations during the
11 grouse lekking and breeding season that generally runs
12 from April to July and a 0.25 miles of active raptor
13 nests during the raptor nesting season, which is
14 generally March through July to the extent practicable.

15 Q. Does Burke Wind plan to conduct
16 post-construction monitoring per the wind energy
17 guidelines?

18 **A. Yes. Burke Wind will complete one year of**
19 **post-construction bird and bat mortality monitoring in**
20 **adherence with the 2012 voluntary land-based wind energy**
21 **guidelines by the U.S. Fish and Wildlife Service. In**
22 **addition, Burke Wind will implement a wildlife response**
23 **and reporting system over the operational life of the**
24 **project. This system includes protocols, regional staff**
25 **to document and report bird and bat mortalities as part**

Public Hearing
3/8/2019

Page 137

1 **of routine maintenance activities.**

2 Q. Are you aware of the letter that U.S. Fish and
3 Wildlife Service filed yesterday and that is marked as
4 exhibit 45?

5 **A. Yes, I am.**

6 Q. Despite the late filing, have you had an
7 opportunity to review this letter?

8 **A. Yes.**

9 Q. Does Burke Wind feel they have addressed all the
10 concerns expressed in this letter from U.S. Fish and
11 Wildlife Service?

12 **A. Yes, we do.**

13 Q. Are you aware of the letter that was filed by
14 Mercy Corps Game and Fish yesterday as well? That has
15 now been uploaded to the commission's docket and is
16 marked as hearing exhibit 44?

17 **A. Yes, I am.**

18 Q. Despite the late filing, you got an opportunity
19 to review that letter?

20 **A. Yes.**

21 Q. Does Burke Wind feel they have addressed all the
22 concerns expressed in this letter from USFWS?

23 **A. Yes, we do like.**

24 Q. I'd like to draw your attention to the North
25 Dakota Game and Fish letter that was submitted. This is

Public Hearing

3/8/2019

Page 138

1 exhibit 44. With respect to the second paragraph on page
2 two, North Dakota Game and Fish indicates that various
3 -- the old reports were provided to them on February 13.
4 The departments assert that they have not had an
5 opportunity to review these reports in such a short
6 timeframe. The second paragraph references a whooping
7 crane habitat assessment done -- this is exhibit 27. Can
8 you please turn to that exhibit?

9 **A. That's volume one and I have it open.**

10 Q. Can you please describe the addendum, the
11 addendum, that one page document that exists before the
12 major report that was provided?

13 **A. Yes, it is.**

14 Q. And what is the purpose of that brief addendum?

15 **A. The purpose of this addendum was to reiterate,**
16 **but it's a subset of the previously submitted reports**
17 **that went into the 300 megawatt application last**
18 **September. It clarifies the subset of that information**
19 **that is not new but specifically applies only to the 200**
20 **megawatt boundary.**

21 Q. Thank you. With respect to the habitat assessing
22 that is also referenced in this paragraph and is marked
23 as exhibit 26, can you please explain the addendum if it
24 this thing whole Ph dot located before the complete
25 report? Yes, it is. And what is the purpose of this

Public Hearing
3/8/2019

Page 139

1 identity to the whooping crane and denim? It's not new
2 information. It's a subset of the prior reports that
3 were submitted in September of last year, but our
4 application, however, it just clarifies the subset that
5 specifically applies to the 200 megawatt project foundry
6 hasn't ended in November of last year. There's effects
7 today, revives grouse, Lek and raptor nests survey which
8 is marked as exhibit five.

9 Q. Can you please describe this document? This
10 document also summarizes the subset of information that
11 was presented previously in the September following with
12 our 300 megawatt application except it brings it current
13 to the 200 megawatt project that was amended and filed
14 in November. So it's not new information. It's merely
15 carving out what applies if the 208 walk down there.
16 Additional comments within this second paragraph.

17 Systemically,
18 the second paragraph states on a call arranged just last
19 week, Nextera provided the department and the surveys,
20 so the preliminary overview of how their accounting and
21 project impacts and offsets was the ride. However, we
22 are still being very detailed write up of the drip hose.
23 Voluntary offset you.

24 Q. Is there anything you would like to clarify
25 regarding that statement with Dr. Wells? I would direct

Public Hearing
3/8/2019

Page 140

1 your attention to exhibit 46 and 47?

2 **A. Yes, that is an accurate exhibit. 47 shows the**
3 **detail methods followup that I submitted to the**
4 **Department of Game and Fish this past Monday in March.**

5 Q. So to clarify it and kind of taking it a step
6 back, can you please explain exhibit 46, the February
7 1st one?

8 **A. Yes. As a result of the recommendations from the**
9 **Department of Game and Fish and efficient model their**
10 **service on February 15th in exhibit 46 we described the**
11 **derivation of our offset package that we volunteered to**
12 **address our residual impacts. It outlined our impacts,**
13 **how we calculated them at a high level and made an offer**
14 **based on context of all the other avoidance,**
15 **minimization and mitigation measures we'd already**
16 **committed to as well.**

17 Q. Would you agree with the characterization of the
18 North Dakota Game and Fish and U.S. Fish and Wildlife
19 service is a fair description of the interactions and
20 discussions that they had had with you as they're
21 contained within a recent correspondence that has been
22 filed yesterday?

23 **A. No, I would not. I would like to specifically**
24 **address two points. One, the second paragraph on the**
25 **second page of this letter, I would seem to have a read**

Public Hearing
3/8/2019

Page 141

1 or believe that all of the information that we provided
2 was provided late in September. That is not accurate
3 supported by the record as I just testified, two of the
4 three new materials that were provided at the third
5 grade per year in deadline where simply subsets of
6 information provided last September with the 300
7 megawatt application and then have them their amended
8 and November. Each time we make a filing like that, I
9 made sure we provide both paper and electronic copies of
10 all wildlife and associated reports including copies to
11 both agencies. So that characterization of the status
12 and information is not correct. I would also take -- I
13 would also take a different interpretation with regard
14 to the overall tone of the letter and acknowledges
15 some of the efforts that we have taken. However, I don't
16 believe that fully acknowledges the whole package of
17 avoidance, minimization and mitigation measures that we
18 have offered. Specifically, the letter seems to point
19 out that they don't believe these followed the wind
20 energy guidelines. A concern with that would be the
21 Department of Game and Fish and formed numerous wind
22 industry companies last year that not only did they not
23 understand the wind energy guidelines, but they were
24 largely irrelevant. So I find that very surprising in
25 this letter. As I've testified, we have followed the

1 **wind energy guidelines.**

2 Q. In your opinion, has Burke Wind sited the
3 project in a matter so that the location and operation
4 of the projects will produce minimal adverse effects?

5 **A. Yes. For the reasons I had previously discussed.**

6 Q. In your opinion, are the projects compatible
7 with the environmental preservation and efficient use of
8 resources?

9 **A. Yes. Commissioners, this concludes my testimony.**
10 **Thank you for your attention and I welcome any questions**
11 **at this time.**

12 (Recess taken.)
13
14
15
16
17
18
19
20
21
22
23
24
25

Public Hearing
3/8/2019

Page 143

1 NOTARY REPORTER'S CERTIFICATE

2 STATE OF NORTH DAKOTA

3 COUNTY OF CASS

4 I, Kayla A. Richmond, a Notary Public within and
5 for the County of Cass and State of North Dakota do
6 hereby certify: That the afore-named witness was by me
7 sworn to testify the truth, the whole truth, and nothing
8 but the truth.

9 That the foregoing one hundred forty-five (145)
10 pages contain an accurate transcription of my shorthand
11 notes then and there taken.

12 I further certify that I am neither related to any
13 of the parties of counsel, nor interested in this
14 matter directly or indirectly.

15 WITNESS my hand and seal this 15th day of
16 April, 2019.

17
18 Kayla A. Richmond
19 Notary Public
20 Fargo, North Dakota
21

22 THE FOREGOING CERTIFICATION OF THIS TRANSCRIPT DOES NOT
23 APPLY TO THE REPRODUCTION OF THE SAME BY ANY MEANS,
24 UNLESS UNDER THE DIRECT CONTROL AND/OR DIRECTION OF THE
25 CERTIFYING COURT REPORTER.

Public Hearing

3/8/2019

A				
A-weighted 81:12	acoustic 124:5	88:12,15,16,25	130:2 131:13	142:4
a.m 1:17 6:2	acoustics 78:11	90:24 108:14	140:12,24	AECOM 108:2
abandoning 116:10	acquire 64:11	120:25 121:4	addressed 128:17 129:5	110:1 125:23
ability 27:9,12	acquiring 64:9	124:10,12	129:23 137:9	125:25
65:23 66:23	acquisition 32:1	138:10,11,14	137:21	aerial 118:22
able 68:14 89:16	acre 64:25 66:19	138:15,23	addressing 11:11	119:10,12,15
129:20 131:24	112:15	addendums 18:21 90:15	adequate 30:14	119:19,22,24
above-ground 29:19	acreage 65:21	adding 66:2	67:17 80:25	120:5
absence 124:4	106:18	67:22 85:14	adhere 114:25	affect 28:16
Absolutely 59:2	acres 21:23	addition 14:18	135:11	93:11
abundance 118:13	22:14,17 23:10	18:24 22:5	adherence 136:20	affiliates 20:1
acceptable 98:9	23:11,12 26:1	25:18 38:14	adjacent 30:17	afore-named 143:6
98:12	26:18 61:11,13	40:3 62:10	31:6 72:22,23	afternoon/eve... 99:23
acceptance 29:21	64:20,21 65:3	76:23 87:5	adjusted 46:9	ag 70:14
accepted 98:11	66:11,16 106:7	109:25 115:13	24:17 81:13,20	agencies 10:1,13
access 22:20	106:10 112:14	131:23 133:16	86:21	10:21 11:5,20
24:13 29:16	113:14,16,20	133:22 134:8	adjustments 24:15 25:5	39:14 63:9
30:12,16,18	113:24 123:10	136:22	ADLS 37:7,7,9	92:3 114:18
31:4 108:7	123:11,15	additional 11:7	20:7 36:8,17	124:14,17,20
113:24	131:8	14:18 17:17	administrative 2:3 5:2,3 47:13	124:20 126:13
accessory 47:20	Action 127:22	22:19 24:10	80:6 124:18	126:15,20,24
accommodate 25:14 57:10	actions 62:14	30:23 38:22	admission 13:20	127:6,12
account 55:9	active 9:1	53:11 56:5,13	admit 16:21	129:12 141:11
59:11 61:23,25	119:19 120:2	56:25 59:22	admonition 103:6	agencies' 129:23
65:17 80:14,16	136:7,8,12	65:19 67:22	adopt 80:21	agency 8:23
accounted 126:2	actively 40:21	71:2 79:10	adopted 86:17	17:14 127:8
accounting 125:18 139:20	134:25	80:16 101:10	97:17	130:2,7 131:14
accurate 94:16	activities 29:8	110:4 123:21	ads 76:21	132:9
140:2 141:2	29:12 38:16	131:3 139:16	advanced 37:6	aggregate 30:13
143:10	108:11 120:6	Additionally 31:24 32:22	adverse 6:12,17	agnostic 13:5
accurately 21:12 23:22,25	137:1	37:24	65:2 93:14	ago 62:23
24:3 100:17	activity 29:10	address 19:15	111:8 113:9,12	agree 44:14 72:1
acknowledges 141:14,16	81:6	19:17 23:13	114:3 116:8,13	72:1 86:2,11
	actual 50:23	33:25 39:24		92:19 93:10
	51:4,7,12,19	78:4,5 82:19		94:19 140:17
	51:25 52:9,20	83:9 88:17		agreement 27:2
	53:4 64:2 71:5	103:19,21		28:10 32:6
	add 65:21 85:12	107:8,25		50:3 53:18,19
	95:17 101:14	116:12,23		54:10,13,15
	addendum 24:5	117:14 126:22		68:14 69:24
	24:7,14,18,24	127:13,14		75:20,23
	25:3,5 82:24			
	83:3,7,9,16			

Public Hearing

3/8/2019

Page 145

agreements 35:15,17 75:7	83:4 90:16 121:3,15	anticipate 96:16	129:17,18	112:14 113:14
agricultural 21:23 69:21 106:19 118:12 132:1	124:11 139:13 141:7 America 19:24 American 33:2 124:24	anticipated 24:22 36:10,15 47:3 111:8 112:13 113:10 114:4 121:24 124:7	138:17 139:4 139:12 141:7	113:16,20,23 117:11 123:9 123:10 129:22 134:3
agriculture 25:25	amicable 69:24	anticipating 59:25	applications 21:11,12 42:23 43:3 104:24 105:5	April 36:9 39:16 102:7 117:24
ahead 7:19 15:17 103:1	amount 61:10 65:21 92:16 93:5 98:9 127:19	anxious 12:18	applied 32:16,19 81:2,13 88:5 92:9 97:14	118:23,24 119:13,25 120:19 134:3 136:12 143:16
air 20:13,14 36:21	93:5 98:9 127:19	anymore 93:14 100:16 101:2	applies 18:23 81:19 138:19	archaeological 105:24 106:1 106:21,22 107:25 109:19
airline 72:19	amounts 81:9 135:19	anyway 94:20 97:7	139:5,15	archaeologists 108:2
airlines 74:21	analyses 79:8,16 79:20 105:15	apart 26:13 52:12 66:3	apply 88:2 94:10 143:23	archaeology 108:18,23
airplane 72:17	analysis 33:5,21 79:23 82:13 84:1,10 87:9 88:10 90:1,2 119:6 123:25 131:11	apologize 12:10 74:3	Appreciate 54:21 96:24	archeologists 10:18
alerting 73:19	84:1,10 87:9 88:10 90:1,2 119:6 123:25 131:11	app 74:7	appreciation 41:14	archeology 126:4
align 63:11	analyst 7:12	apparently 64:4	approach 71:4 71:21 73:22	architectural 106:25 107:7 107:11,12,14 107:16,17
allocated 64:10	analyze 59:1	appealing 58:11	approached 59:7 129:8	area 11:22,24 21:22 23:8,10 27:17 30:23 34:8 36:3,14 38:3 40:8 52:18 58:18,20 60:14 65:1 66:17 67:24 73:11 87:15 89:11 94:22 96:15 100:18 105:20,22,22 106:6,6,11 108:7 110:9,12 111:6,19 115:5 117:7,7,23
allow 7:15 57:4 101:13	analyzed 38:6 59:9	appearances 6:21	approval 37:1,8 43:8 57:2	
allowed 7:13 129:25	analyzing 66:4	appeared 40:4	approve 43:11 55:19	
allowing 30:18 67:25	and/or 40:5 66:5 78:22 105:20 106:22 110:9 116:12 125:19 125:24 126:7 143:24	appearing 7:1	approved 43:11 56:6 110:2	
alluded 98:14	angle 89:16	appears 93:1	approves 29:7	
ALTA 33:3,6	annotated 13:22 13:25	Appendix 119:8 120:8	approximate 33:11	
alternate 22:5,6 36:23,25 82:16	annoyance 81:7	apple 81:15,15	approximately 5:17,25 20:2 21:21 22:17 25:22 26:11,11 30:1 38:13,15 38:24 46:21 58:22 64:21 78:20 106:7,9	
Altinger 92:22	annual 90:4,7	applicable 18:18 87:4 121:3 124:11 135:9		
Aman 7:5	ANSE 101:18	application 1:6 1:10 5:12,19 19:9 20:24,25 21:3,6 23:1,3 24:6,8 25:8 32:18 34:5 44:4,18,22 45:17 47:10 68:6 101:2 104:21 119:9 120:9 121:16		
amazing 8:14	answer 41:16 49:16 64:22 67:20 93:16			
ambient 79:2 86:13,24 87:3 94:24 96:2,3,4 96:9,11	answers 72:14			
Ambulance 40:25				
amended 5:12 14:14 20:23 21:3 23:4,10 24:2,5,8 25:8 32:18 44:4,18 45:17 82:21				

Public Hearing

3/8/2019

Page 146

118:1,16,17,18 118:24 119:1 119:17 120:15 120:18,22 121:3 122:6 123:3 124:9,12 128:11 131:10 areas 79:1 81:8 81:9 100:19 105:10,11,19 105:25 108:9 108:12,16,17 109:11,12,15 109:16 110:4,8 110:11,13,15 110:16,17 111:3 115:10 119:14 130:2 130:15 132:4 133:17 135:24 136:1 arguments 11:3 11:6 arises 60:21 Arizona 104:6 arm 51:2 52:6,8 arms 51:1 Armstrong 3:4 Army 124:22 arrange 67:21 arranged 139:18 arrangements 27:24 articles 100:15 asked 65:4 69:12 asking 51:24 100:23 aspects 25:6 108:5 109:6 114:14 127:17 assembly 29:20	30:25 assert 138:4 assess 86:7 116:6 assessed 31:7 assessing 89:8 138:21 assessment 24:16 82:21 83:5 85:24 86:14,25 115:17 118:5,7 120:23 121:4,6 121:8 123:4,7 124:8,13 138:7 assessments 78:15 79:6 114:25 assign 87:8 95:16 assigned 85:13 assigns 86:19 assistant 7:10 assisted 78:24 assisting 7:6 associate 78:11 associated 5:15 5:21 22:19 25:16,20 82:4 113:2,16,24 115:19 141:10 Associates 17:9 78:10 Association 33:2 assume 89:18 assumed 84:16 84:19,25 assuming 42:3 46:25 48:19 63:19 65:6 67:5 assumptions 84:12 86:3	assurance 37:23 assure 8:1,25 12:2 atmospheric 85:3 attendance 5:8 attention 90:11 137:24 140:1 142:10 attenuation 85:3 attorney 2:15,23 3:10 7:4,10 attorneys 9:25 attracted 59:3,4 Auburn 20:7 audible 96:8 audience 7:18 August 5:18 Aurora's 7:23 authority 69:16 69:16 authors 102:9,9 availability 124:3 available 27:9 58:3 69:2 82:11 avenue 2:11,19 3:6 68:12 average 26:6 46:19 81:11 86:21 avian 115:2,15 117:19 118:8,9 118:11,14 119:15 120:13 120:22 122:10 132:14 135:13 aviation 36:17 117:21 118:2 avid 75:24 avoid 40:10 109:21 112:8	115:6 116:13 121:25 122:1,7 123:20,21 126:6 131:18 132:22 133:25 135:8 136:3 avoidance 34:7 105:11 106:14 110:1,8,11,15 126:1,25 129:9 129:10 132:7 134:15 140:14 141:17 avoided 36:6 105:25 106:2 107:5 111:6 112:18,23 113:4 116:9,16 118:17 121:13 123:17 130:19 130:24 131:20 132:11,24,25 133:2,12,20 134:10,22 135:2,16 136:2 avoiding 111:21 112:4 128:22 130:25 136:9 award 5:19 aware 12:24 57:8 100:4 137:2,13	96:18 97:11 140:6 background 20:4 79:10 87:6,8 94:15 95:13 104:4 backtrack 18:11 Bakken 27:4 balance 98:7 106:13 Bald 117:24 bands 85:4 bank 70:8 barely 12:13 base 22:9,12 based 10:5,11 25:11 47:6,6 52:1 66:6 83:10 87:1 88:18 89:12,15 97:9,25 124:2 125:20 140:14 baseline 86:13 86:24 87:3 94:7,8 95:12 95:15 Basic 45:13 basically 56:5 62:2 71:6 73:7 73:10 basin 5:24 26:3 27:2 28:1,8 43:16 45:14,14 58:3 59:8,9 60:17 Basin's 43:19 basins 134:23 basis 40:2 81:10 99:6 basketball 41:5 bat 123:24 124:1 124:2,3,6,7 136:19,25
--	--	---	--	--

batch 22:25	88:12	5:17 6:3 8:11	building 22:22	113:7 114:12
bats 115:12	biologist 17:16	8:15 21:22	33:11 35:16	114:22,24
Beach 19:18	104:10	39:15 40:24	80:8	115:20 116:14
beam 35:23	biologists 10:17	41:1 64:7	buildings 88:8	116:18 117:2
bedded 26:22	122:25 123:13	76:24	built 31:4 45:22	122:17,20
began 92:3	bird 115:17,18	box 5:10	97:14	123:20,25
123:7 125:4	115:19 118:5,7	boxes 24:12	bulk 10:10	124:14,16,18
129:10	122:8 131:22	29:19	14:16 27:10	125:2,20 126:2
beginning 35:25	132:5,17	Boys 41:5	buried 28:16	126:5,12
behalf 7:2 8:24	136:19,25	brain 69:13	Burke 1:4,5,5,8	128:17 130:6,9
believe 15:14,22	birds 133:10	break 8:6 74:14	1:9,9 2:15,23	130:19,23
46:18 49:2	135:3	76:2 97:5	5:12,13,16,24	131:13,20,24
50:10 62:9	Bismarck 2:12	102:21	5:24 7:2 15:7,7	132:8,11,13,23
63:15 70:4	2:20 3:7 8:21	breaker 94:18	15:9,11 19:21	133:4,7,12,19
74:2 86:24	bit 7:20 9:11,18	breeding 115:17	21:3,4,16,18	133:22,25
98:25 106:16	18:11 74:4	118:5,7 127:21	21:20 23:1	134:5,9,22
117:9 128:3	94:4 102:16	133:6 134:3	24:5 25:16,18	135:3,10,16,21
141:1,16,19	blade 22:10,13	136:11	25:21 27:1,5	136:2,6,8,15
believes 48:14	blades 29:15	Brian 2:7 3:3	27:13,14 28:9	136:18,22
benefit 39:1	87:19,20	7:9 94:4	28:24 29:1,2	137:9,21 142:2
133:10	Blattner 37:15	bride 9:8	29:25 30:4,8	business 19:15
benefits 38:7	38:19,19	brief 29:5	30:22 32:14,15	19:17,20 20:6
39:5 71:9,20	blowing 95:6	138:14	32:16 33:8	20:17 33:10,23
best 32:16 38:23	board 21:15	briefly 87:20	35:10,11,16,20	51:17 78:3,5
61:7 62:15	40:7 91:10,13	105:6 117:18	35:22 36:11,21	103:19,21
63:10 65:6,7	boards 14:10	brightness	36:23 37:2,5	buying 64:5
65:22 69:23	79:9	87:18 99:14	37:11,20,22,24	132:16
73:23 96:20	body 98:18	bring 70:18,25	38:6,11,13,18	
97:7	book 25:1 34:11	bringing 72:11	38:21 39:4,12	C
better 39:16	41:12 83:4,6	72:12	39:13,18,22,23	C 1:12,14 2:1
57:11	bore 136:2	brings 139:12	40:1,3,4,5,7,19	3:1 17:24
beyond 73:2	bored 111:20	broadband 84:2	40:21,25 41:5	119:8 120:8
bi-monthly 55:8	boring 123:19	Broadway 2:11	41:6,7,9,9,24	cable 109:7
72:10	Boulevard	2:19 3:6	42:4,7 56:19	cables 28:15
big 11:16 16:12	19:18	broken 131:7	73:16,18 76:11	36:3,6
34:16 59:17	bouncing 74:4	brought 64:22	76:12,17 79:13	Cadna/A 82:5
61:6,8 64:18	boundary 14:10	Bschmidt@s...	79:21 80:19,21	82:10 84:15
bill 70:11,13	14:12,14 24:1	3:9	91:8,9,13,15	calculate 81:17
bills 8:21	24:2,4 25:4,7,9	buffer 133:16	91:18 106:20	calculated 82:17
binder 48:24	25:12 31:15,19	buffers 110:1	106:22 107:8	89:11 140:13
binders 14:2	32:8,10 73:22	133:23	107:24 109:10	calculates 91:21
18:12,25 19:1	134:19 138:20	build 47:21	109:20,25	calculation 82:6
19:8 20:23	Bowbells 1:21	70:23,23	110:21 111:6	84:13 89:14
				calculations

Public Hearing

3/8/2019

Page 148

89:18,18 call 16:24 17:1,2 17:19 70:11 77:12,13 99:13 103:4 127:2 139:18 calling 6:23 calm 84:22 Canada 19:25 cancelled 12:12 capacity 5:16 19:25 21:19 44:24 45:3,6,9 46:11,15,22 58:3,12,23,23 59:23 61:1,4 66:24 67:21 78:9 capital 64:18 Capitol 11:25 car 95:7 cardinal 80:14 82:19 cardiovascular 100:12 Carolyn 104:22 carving 139:15 case 1:4,8 5:6 9:1 50:25 51:20 64:19 66:8 81:22 89:18 97:13,15 100:19 123:18 cases 12:23 Casey 2:9 7:1 Cass 143:3,5 cast 87:19 categorize 75:16 cattle 41:3 130:14 caused 56:5 causing 93:17 cells 29:15	Celsius 85:1 center 1:9 5:14 5:24 6:9 20:19 21:4 33:11,13 51:3,6 53:7 80:12,13,17 82:17,18 centerline 110:19 121:12 central 41:7 53:6 cerin 130:8 certain 48:1 certainly 12:16 95:5 96:6 98:3 certificate 5:13 5:19 21:3,6 25:19 44:11 143:1 certificates 28:24 CERTIFICA... 143:22 certifications 30:6 113:7 certified 20:9 104:10 certify 143:6,12 CERTIFYING 143:25 Cfurey@crow... 2:14 chair 76:4 challenge 96:1 challenges 69:14 95:13 chance 67:3 change 25:4 87:15 99:14 114:10 changed 25:6 changes 24:11 24:12,13 83:10	87:18 88:17 characterizati... 86:12,16 140:17 141:11 characterize 54:25 75:12 chart 90:14 chattering 13:13 Cheyenne 125:7 125:8,22 choices 116:10 Christmann 8:19 CHS 41:3 chunk 9:14 citizens 6:13 11:15,20 City 41:1 claims 100:13 clarification 20:21 54:9 clarifies 138:18 139:4 clarify 52:5 139:24 140:5 class 17:24 106:24,24,25 107:10,10,23 108:1 classified 105:10 Clayton 17:15 clear 42:22 83:16 84:22 clearly 86:18 cloak 8:20 close 67:8 closely 39:23 133:4 closer 52:9 58:10,14,20 66:7,25 67:20 96:7 closest 117:10	117:12 closing 41:13 Club 41:5 COD 37:10 code 47:13 80:6 124:18 cold 74:8 colleague 7:3 8:18 104:22 collect 95:20 Collecting 87:3 collection 22:21 22:21 24:13,19 24:21 28:12,14 28:15,18 29:17 108:7,11 111:20 132:16 collector 82:14 College 78:17 combined 126:1 come 8:21 11:22 13:9 14:25 17:21 60:19 62:5 64:10 70:22 71:17,21 72:9 73:11 74:14 75:19 76:3,18 comes 10:4 73:21 comfort 71:25 coming 51:1 63:4 70:2 71:13 95:17 commence 45:25 commencing 29:22 comment 12:15 comments 8:8 14:3 15:13 139:16 commercial	20:20 29:9,22 30:2 63:7 79:6 commission 1:2 2:5 3:10 5:4,5 6:6 7:11,12,25 8:2,24 9:25 10:3,14,20 15:17 21:15 24:16 28:23 29:7 32:15 33:8 34:7 35:5 35:14 36:13 40:5,5 41:15 41:17 44:11 55:6,16,18 76:13 82:23 83:1 85:18 88:5 96:14 105:1,8 107:21 108:15,22 109:2,16 110:23 113:8 131:11 commission's 15:25 19:3 27:18 30:6,8 32:6,21 37:3,5 37:24 39:7 105:13,18 110:7,21 113:6 113:11 114:5 137:15 commissioner 2:6,7 8:9 12:7 18:9 20:22 54:19 62:17 72:7 74:13,15 77:7,9 93:24 96:25 100:17 commissioners 7:1,24 8:9 10:16 35:3 55:5,8 71:3
--	--	---	---	---

Public Hearing

3/8/2019

91:10,13 142:9 commissions 70:25 commitment 40:20 committed 47:16 134:5 135:11 136:9 140:16 committee 41:7 115:3 122:11 132:15 135:14 committees 8:25 commodity 70:14 common 57:21 88:5 communicate 42:17 communication 75:22 Communicati... 36:12 communities 96:15 97:18 115:7 community 27:12,15 39:18 40:20,22,23 56:13 59:13 69:22 70:22 71:7,11,15,15 71:20 73:13 80:8 82:12 86:8 88:8 94:6 95:1,9 companies 9:21 36:4 141:22 company 9:16 9:24 10:3,7,16 10:22,25 11:4 59:3 60:2 61:18,18 71:12	75:1 78:11 94:5 compared 14:14 24:1 65:10 91:21 101:18 comparing 61:15 comparison 14:12 81:15 compatibility 5:13,20 21:4,7 25:19 compatible 6:14 142:6 compensate 131:17 compensation 75:7 complete 20:22 30:1 87:9 136:18 138:24 completed 29:8 36:11 39:12 108:2,12 114:24 118:7 121:7 125:23 133:22 completely 18:19 86:1 112:18 completing 29:15 completion 7:23 31:1 109:17 compliance 33:19 79:4 81:16 86:6 87:10 104:18 complied 32:14 complies 32:20 34:1 compliments 69:3	comply 30:8 36:16,19 37:2 components 29:14 composition 118:10,11 comprehensive 18:13 19:9 44:23 comprise 26:20 108:8 comprised 21:25 comprises 109:8 compromises 11:6 concentrated 67:12 concentration 119:14 133:17 conceptual 79:4 concern 56:11 93:16 99:24 116:6 127:8,17 127:23 129:2 131:19,23 132:6 141:20 concerned 54:2 56:7 127:19 concerns 23:14 31:10,11,25 39:24 61:20 66:6 99:7 100:6,11 116:23 126:22 127:12,13 128:8,14,25 129:5,24 130:3 130:7 131:14 132:9 137:10 137:22 conclude 90:25 concluded 96:23	107:14 concludes 142:9 conclusion 85:23 conclusions 107:20 concurred 107:19 concurrence 108:14,15,20 108:21,25 109:1,14,15,17 condensed 65:8 condition 38:4 conditional 15:6 15:8,10 35:10 35:13,19 55:19 57:3 72:13 84:14 conditions 11:11 81:22 84:19,25 conduct 79:15 136:15 conducted 17:13 33:3 79:5,21 79:23,24 80:2 84:11 86:13 94:24 105:3 107:10 111:15 112:24 114:23 115:13 117:21 118:23 119:13 119:25 120:23 122:2 123:1,25 124:8 conducting 78:14 104:24 132:20 conference 12:19 41:3 127:2 confirm 83:19 88:24 119:3	122:5 135:1 confirmed 118:25 conservation 115:2 129:2 132:5 135:4 conservative 84:10,12,15 conservatively 80:16 85:12 consider 27:8 58:14 60:13 126:17 considerably 67:22 consideration 45:20 51:4,24 52:20 63:16 considerations 26:13 considered 6:8 8:2 51:8 86:20 105:12 116:14 130:15 131:4 considering 27:17 52:21 consisted 76:20 consistent 88:4 118:11 129:6 consisting 5:14 28:15 consists 21:24 28:7 82:15 consolidated 21:6 48:24 constantly 98:13 constraints 106:14 construct 5:13 29:1,3 31:5 38:19 constructed 5:23 26:5
--	--	---	--	--

Public Hearing

3/8/2019

Page 150

63:20 133:24 construction 5:20 17:7 22:25 24:20 29:6,11,12,12 29:16,16,23 30:1,5,10,16 30:19,19,20,22 30:24 31:1,12 31:12,14,14,16 31:18,20,21,21 35:16 36:5 37:15,16 38:5 38:16,16 45:25 46:6 48:3,16 50:4 64:17 108:16 109:16 113:5,15,17,18 113:22 115:8 120:1,5 121:10 127:9 132:20 132:21 133:25 135:9,20,24,25 136:9 consult 10:12 consultant 37:15 104:14 consultants 92:5 104:23 105:3 114:24 123:1 consultation 17:14 consulting 104:3 CONT'D 3:1 contact 8:6 31:11,16,22 39:13 42:14,15 42:16 48:15,17 48:18 contain 90:14 143:10 contained 14:4 18:22,24 39:7	79:11 121:1 124:10 140:21 containing 31:22 content 125:16 contents 21:2,10 context 17:17 92:6 96:5 114:18 140:14 continent 103:25 continue 19:12 35:7 37:18 100:24 101:1 127:5 134:24 continues 9:4 continuing 6:18 64:16 continuous 61:14 contour 86:3 contract 38:18 47:6 contracts 117:17 contractual 37:25 contrast 12:9 contributing 40:21 contribution 100:9 control 48:11 78:19 102:6 143:24 conversation 9:4 conversations 37:13 conversion 9:22 68:9 converted 81:17 convey 26:1	convinced 72:19 cool 8:14 Cooperative 43:17 Cooperative's 26:3 coordinate 37:16 39:16 57:9 134:25 coordinated 27:15 37:11 106:12 124:14 124:19 coordinates 80:11 coordinating 126:12 coordination 17:15 31:9 37:18 107:2 114:17 copies 16:14,16 141:9,10 copy 54:9,12 corners 8:13 Corps 124:22 137:14 correct 18:14,15 19:11 42:1,2,3 42:21 43:1,9 43:12,14,17,18 43:24,25 44:11 44:15,16,19 45:16,24 46:12 46:13 47:14,23 47:24 48:2,3 48:22 49:11,19 49:20,23,24 51:14,23 52:12 57:16,18 59:24 63:21 66:21 67:10 73:8 76:22,22 83:21	83:25 89:3 92:17 93:12,13 97:10 102:23 128:16 141:12 correctly 13:6 correlation 99:6 correspondence 15:20,20,23 16:1,4 32:4 128:2 140:21 corresponding 84:18,20 corridor 5:19 14:12 21:7 24:13 25:19,24 25:24 53:14,15 105:21 106:1 109:9 110:10 110:15 112:2 112:25 114:1 119:2 120:2,4 120:25 121:12 123:4,16 127:21 135:21 corridors 24:19 24:21 cost 27:22 costs 27:19,20 costumer 61:25 counsel 143:13 counties 25:21 35:20 38:14,21 40:2 72:12 122:18 country 65:6,7 65:11 66:15 70:9 county 1:9,9 5:14,16,24,25 15:7,9,11 21:4 21:20 26:4 27:14 32:15 33:8,12,15	35:11,13,16 37:13 39:23 40:4,5,6,25 41:5,6,9,10 55:5,5,18 56:4 56:17,19,24 57:2 65:15 69:16 70:25 71:2,16,22 72:7 76:12,12 79:9,21,25 80:19,21 82:20 84:9 86:12,16 86:17 87:1,10 91:8,10,13 117:2 122:20 122:22 143:3,5 County's 91:15 91:18 couple 8:21 44:6 44:20 97:2 course 13:4 69:20 89:23 COURT 143:25 cover 30:13 66:9 covered 74:5 108:5 109:5 covers 123:5 crane 24:14 115:12 120:23 121:6,22 127:21 138:7 139:1 cranes 112:17 120:16,17,20 121:10,19,24 122:1,4,6 129:2 132:12 132:19 133:2 134:14,18 create 38:15 68:12 created 83:9
--	---	---	--	---

Public Hearing

3/8/2019

88:16 credit 45:19 46:1,3 credits 22:5 criteria 9:20 10:17 27:18 32:14 39:8 64:3 65:15,20 92:9 97:16 101:19,22 105:8,10,11,11 105:13,18 110:8 113:11 114:2,5 critical 120:12 121:22 122:16 criticism 86:10 cropland 131:6 crops 57:8 cross 4:5,9 9:24 10:4 41:19,21 52:6,8,25 54:22 62:18 74:15 91:3,5 93:25 97:1 102:22 111:20 crossed 74:20 crossing 35:17 50:2 crossover 9:9 Crowley 2:10,18 7:1 cultural 105:1 107:1,4,24 108:1,4,6 109:4,6 111:5 111:7 125:15 125:19,24,24 126:7 culturally 109:23 culture 97:24,25 98:1	curious 74:18 94:18 current 18:25 24:16 45:3 83:17 88:25 98:14 139:12 currently 24:1 28:4 29:3 78:18 curtail 57:10 curtailment 132:18 customer 27:11 43:21 45:23 59:6 63:10 CV 15:15,18 79:11 85:20	135:6,15,17,23 136:3,4 137:25 138:2 140:18 143:2,5,20 Daryl 4:3 17:3 17:20 18:11 19:16 54:21 data 33:18 87:3 89:12,15,15 116:2,5,11 DataKustik 82:6 dataset 83:11,11 88:18,19 date 6:4 14:1 29:9 dated 15:22,24 16:1 82:22,25 88:10,12 102:7 127:16 128:3,6 128:13 David 15:16 85:18 Davis 7:4 Dawson 2:3 5:1 5:1 7:8,15,17 12:7 13:16 16:11,15,19,25 17:21 18:3,8 19:12 35:7 41:18 54:16,19 62:17 74:12 76:2,6 77:3,5,7 77:9,11,15,18 77:21 78:1 91:2 93:21,24 96:25 101:4,6 101:8,13,25 102:11,14,19 102:23 103:1,5 103:8,11,16 day 8:16,17 9:14 9:14 11:3 12:2	12:21 13:12 30:23 72:17 81:11 97:7 99:17,18 143:15 daylight 89:19 days 19:4 62:23 dba 80:7 81:1,3 81:7,15,24 84:2,4,6,7,9 94:10,12 95:12 deadline 19:4 46:5 141:5 deal 9:18 49:17 75:4 94:18 dealing 44:21 December 20:20 29:4 30:3 45:25 46:4 107:20 123:9 decibel 81:20 85:5,8 91:20 decibels 85:11 85:13,15 decide 10:15,16 11:2 decided 27:13 75:18,20 decimal 81:13 decision 9:6 10:5,10,11 13:1 62:6 70:1 116:4,9 decision-maki... 116:1 decisions 12:25 98:18 declaring 20:20 decommission... 37:21,22 47:12 47:17 dedicated 71:12 dedication	64:16 deemed 109:23 deep 28:16 61:24 defense 61:19 defined 87:14 130:11 definitely 60:18 definition 96:9 130:18 Definitive 28:6 degree 68:8 degrees 85:1,1 delineated 111:19 delineations 111:15 112:6 delineator 104:11 delivered 127:25 delivery 29:20 delta 96:9 demonstrate 87:10 105:15 demonstrated 39:9 40:19 demonstrating 132:6 denied 43:7 denim 139:1 density 127:22 Denver 12:13 deny 55:24 denying 56:2 department 32:5 40:24 116:25 124:21 124:22 126:10 127:10,15,18 127:23 128:2 128:18,20,25 129:7 130:4
--	--	---	---	--

Public Hearing

3/8/2019

Page 152

131:15 135:6 139:19 140:4,9 141:21 departments 138:4 dependent 26:18 43:3 depending 26:8 26:13,14 95:22 depends 46:25 99:21 depict 23:22,25 depicted 23:24 25:7 depicts 14:13 24:3 deployed 75:21 depth 38:2 Derby 17:15 114:13,15,18 122:11 derivation 140:11 derived 81:3 83:22 89:1 describe 21:12 21:16 23:3 25:16 27:23 28:11 40:13 71:8,9 80:4,19 81:3 83:2 90:12 105:12 105:19 106:20 107:7,23 110:8 114:22 115:20 116:4 117:18 126:9 130:6 132:8 138:10 139:9 described 24:18 25:5 54:5 83:23 115:24 129:16 134:9	140:10 describing 93:5 description 94:16 140:19 design 20:16 24:9 25:15 26:8 84:17 88:6 90:8,10 91:23 94:7,9 94:13 105:13 117:10 123:17 126:14 129:13 129:15 130:20 133:5 135:17 designated 5:2 34:7 110:13 111:3 121:22 122:17 124:17 designed 109:20 112:3 115:23 designs 126:15 desired 106:15 desktop 33:5,17 33:21,21 114:25 115:9 116:2 123:7,25 Despite 137:6,18 detail 34:4 79:10 82:2 123:23 130:8 140:3 detailed 139:22 detected 119:1 119:14 133:15 133:17 detection 37:7 117:25 132:5 detections 117:25 determinations 36:22,24 determine 123:2 determined 6:8 112:16 133:1	134:13 determining 51:8 develop 37:22 47:12 60:11 71:12 developed 20:17 43:19 82:6 89:7 92:1 97:14 121:7 developers 92:5 development 16:3 17:4 19:20 20:17,18 27:14 92:3,5 116:11,15 developments 39:22 78:15 79:3,7 Di 16:2 diameter 26:10 difference 88:9 differences 83:2 different 8:13 9:20 10:12 12:16 47:1 65:25 95:19,25 97:8,23 100:21 141:13 difficult 87:7 94:23 96:16 dimensions 89:14 dinner 31:17 direct 4:4,8,12 19:13 26:19 41:24 42:4 47:14,19 50:16 61:12 78:2 85:17 94:3 103:17 111:6 121:13 139:25 143:24	directed 31:25 104:23 105:1 direction 58:20 89:23 143:24 directions 80:14 82:19 directly 26:9,22 42:7,11 52:15 61:16 136:1 143:14 director 17:4 19:20 disagree 86:15 disappointment 62:25 discharged 20:14 discrete 80:12 89:13 discuss 22:17 34:3 40:2 76:18 89:4 114:15,15 123:23 125:2 125:14 127:2,6 discussed 76:14 89:2 116:21 126:13 134:9 142:5 discussing 17:9 17:12 75:17 124:25 discussion 17:6 17:17 discussions 60:19 61:24 63:9,9,10,13 125:13 140:20 disease 100:12 dispersal 122:21 122:24 display 14:10 117:8	distance 32:23 51:21,25 52:1 52:3,5 57:25 80:17 93:8 distances 93:6 distinct 81:19 distribute 14:24 15:1,2 45:14 distributes 45:15 distribution 7:7 20:16 District 41:9,12 disturbance 24:22 disturbed 130:13 disturbing 136:1 diverters 122:8 132:17 division 55:4 134:25 dizziness 99:8 100:13 docket 15:15,23 15:25 19:2 107:18 137:15 document 8:5 54:11 80:23 81:4,5 90:12 115:15,16 136:25 138:11 139:9,10 Documentation 111:22 documented 119:18 122:1 122:19,21,22 122:24 123:13 126:4 documenting 135:7
---	--	--	---	--

Public Hearing

3/8/2019

documents 21:1 40:13 92:8	E 1:14,14 2:1,1 3:1,1 4:1	effectively 19:6 19:7	22:20 28:3,11	61:10 67:3
doing 60:20 95:15 96:20	eagle 115:2,15 117:23,24,25	effects 6:12 35:23 65:2	electricity 19:24 51:5	68:8 69:4
dollars 27:21,22 38:13,25 70:11	118:2 119:13 119:14 120:4	93:14 99:12 100:1 101:11	electronic 141:9	78:21 79:21
dominated 132:1	133:15,17	105:16 113:12 139:6 142:4	eligibility 109:25	97:13 98:5
donation 40:25 41:1,11	eagles 129:3 133:12,15	efficiency 58:17 58:19 67:7	eligible 46:1 107:2,3,15	103:21 104:15
donations 40:22 71:10	ear 85:4	68:10	109:21,21	105:9 115:1,21
Donato 16:2	earlier 50:15 57:11 83:8	efficient 6:15 67:9 140:9	elimination 23:8 24:12	115:25 132:14
dot 138:24	88:15 100:23 116:21	142:7	embedded 26:9 26:11,19	135:13 136:16
downsized 56:23	early 29:24 129:11 130:22	efficiently 27:9	EMD 89:7	136:20 141:20
downsizing 58:7	Earth 113:2	effort 23:13 41:15 86:6	emergency 37:12,16,18	141:23 142:1
downwind 84:23 84:23	easement 32:1,3 32:5 38:2 49:3	efforts 27:14 63:6,13 108:12	employed 19:14 19:16 78:8,10	engage 127:5
Dr 16:7 17:10 22:17 27:16	49:5,25 53:19 113:17 121:11	125:3,4 131:1 134:8 141:15	103:19,20	engaged 9:5
61:22 62:11,13 103:4,5 128:15	135:21	eh 114:2	employees 71:14	73:1,2 96:14
139:25	easements 49:1 49:8 134:21,23	eight 20:19 22:1 22:2 26:16	employment 38:11 100:3	124:25
drafted 105:2	east 3:6 6:1 75:13	55:1 64:19 68:21 69:8	encompassed 23:10	engineering 20:8 24:11
drainages 113:1	eastern 56:12 62:3 118:15	90:12 92:21 93:1 124:25	encompasses 21:23 23:11	26:8 37:14
draw 90:11 137:24	easy 57:17	125:7,14	25:25 106:7	78:19 102:7
drill 26:19	ecology 104:7	either 18:19 52:16 99:20	encourage 7:23	129:13
drilled 26:23 100:18	economic 38:6,9 45:19 67:6	123:18	endangered 120:11,13	Engineers 124:23
drip 139:22	economics 67:5 67:6 68:10,11	elaborate 101:23	ended 139:6	ensure 33:6 36:5
drivers 23:12	69:4	elected 86:22 112:8 116:15	ends 12:16	39:25 84:15
driving 12:14 68:11	economy 39:2	Electric 22:1 26:3 27:2	energy 1:9 2:15 2:23 5:14,24	ensuring 6:17 6:18
drop 67:22 95:5	edge 53:3,9,13 53:14 54:7	43:17 45:13 58:3	6:19 7:5 9:22 12:20 13:5	enter 8:5 14:19 14:23
dropped 58:25	72:25 110:19	Electric's 5:25 28:1,8	16:3,7 17:5,12 19:17,22 20:17	14:23
due 87:16 134:15	education 79:10	electrical 20:8	20:18,19 21:4 23:2 37:15	entered 27:1 35:25
duration 90:4 99:16	educational 20:4 104:4		38:19 42:1,13 44:22,23 45:10	entire 19:9 81:25
dust 48:8,10,12 48:14	effect 85:14		60:20,23,24,25	entirely 18:17 47:2
<hr/> E <hr/>				entirety 9:3 entities 42:6 entity 42:7 entry 16:9 58:1 environment 6:12,17 11:15 44:21 65:3 105:17 environmental 6:14 17:11,13

Public Hearing

3/8/2019

Page 154

23:14 48:21 56:9,11 59:12 65:18 66:5 76:17 78:18 80:23 89:9 103:24 104:2,3 104:13,14,18 104:25 105:15 106:14 115:10 116:23 123:1 142:7 EPA 80:22 81:5 86:17,20 EPA's 81:4 EPC 37:14 epileptic 93:17 93:19 99:5 Epsilon 17:9 78:10,16,20 79:15,24 80:11 82:24 84:14 equate 81:1 equipment 29:10 31:2 82:10 135:25 equivalent 81:12 82:1 equivalently 84:22 erecting 29:19 especially 13:17 100:22 essentially 64:24 establish 75:23 established 88:8 100:14 estimate 58:23 102:17 estimated 27:19 27:20,22 106:8 131:8 estimates 30:22 38:12 89:22	Europe 92:1 97:11 European 97:9 97:19 Europeans 98:3 evaluate 10:21 79:25 80:9 86:7 88:2 92:10 105:8 115:13 evaluated 25:12 109:24 114:12 evaluating 27:7 78:21 87:5 evaluation 22:23,24 36:20 79:4 81:16 97:16 108:6 109:7 evaluations 78:24 evening 99:20 event 42:19 99:22,23 events 39:19 everybody 8:10 10:4 12:4 74:17,21 75:2 everyone's 96:19,22 evidence 8:5 98:19 100:5,21 exact 16:17 exactly 63:8 68:2 102:6 exam 4:4,5,8,9 4:12 examination 9:24 19:13 41:21 52:25 54:22 62:18 74:16 76:10 78:2 91:5	93:25 97:1 103:17 examine 10:4 41:19 91:3 example 66:17 101:23 128:24 exceed 65:23 exceeding 95:24 exceeds 32:20 excellent 12:21 exception 20:23 excluded 106:20 exclusion 52:18 105:10,19,22 105:25 110:4 110:13 111:3 excuse 39:6 44:9 execute 28:9 32:5 38:18 exhibit 13:22,25 14:4,6,9,11,12 15:6,8,10,15 15:18,20,25 16:6 21:5,8 23:21,22,25 24:3,6,23 25:1 25:4 30:7 32:4 32:19 34:11,15 34:25 35:5,18 40:16,17 44:5 45:17 47:11 48:23 49:12 50:13,14 53:24 54:15 74:25 79:12 82:23 83:1,3,4,5,6,17 83:24 85:19 88:11,13,25 89:2 90:11 92:12 107:19 107:22 108:20 108:22,25 109:2 110:24	111:24 112:7 117:8 118:4,19 119:5,8,21 120:8 121:5,15 121:17,17 123:6 124:13 128:3,15 131:12 137:4 137:16 138:1,7 138:8,23 139:8 140:1,2,6,10 exhibits 7:7 13:17,21 14:5 14:7,15,17,19 14:20,21 15:5 15:12,19 16:9 16:12,21 18:11 20:23 35:25 40:12 90:17 111:18 113:9 exist 112:22 existed 38:4 existing 26:3 28:3 31:6 36:2 43:14 53:25 54:10,13 59:19 96:10 108:7 114:8,10 127:21 exists 11:12 138:11 expand 38:21 59:25 60:4 61:22 68:12 expanse 65:13 expect 37:8 46:14,20 102:15 expectation 46:19 expected 29:23 37:1 46:21 88:7 89:5,25	90:4,7 92:18 97:15 106:17 107:17 133:18 134:15 expects 28:9 experience 20:11 70:24 72:11 78:13,14 79:11 99:15 101:23 104:12 104:14 114:20 experienced 69:20 experiences 87:18 expert 76:18 80:25 expertise 10:19 10:25 79:2 experts 10:18,19 expires 38:3 expiring 70:5 explain 18:22 24:7,15 69:11 69:15 70:15,17 85:7 91:24 92:24 93:2 111:1,9 112:19 138:23 140:6 express 41:14 expressed 61:21 100:17 125:10 127:12 128:7 128:14 137:10 137:22 expressing 127:17 expressly 60:23 Extension 41:2 41:6 extensive 61:14 61:15 extensively
--	---	--	---	---

101:1 extent 25:13 38:23 40:11 112:11,23 113:4 120:7 133:4 134:1,12 136:14 exterior 80:15 80:17 extracted 92:8 extracting 67:2	45:10 64:7 74:23 140:19 fall 117:22 126:13 familiar 21:2,10 91:15 100:2,4 family 75:19,21 75:23 far 54:1,2,21 56:19 72:22,24 73:6,12 92:4 99:12,24 Fargo 143:20 farm 7:20 9:13 20:16 43:6,11 49:6 55:6 70:3 farming 28:17 106:15 farmland 105:23 106:4,5 106:7,9,16 farms 81:8 farmstead 50:5 farther 122:23 130:25 fashion 6:20 fast 70:10 74:1 93:18 faulted 86:5 favorable 84:19 favorite 8:11 feasible 25:13 133:4 134:12 February 16:1 39:21 44:15 82:25 83:7 88:12,14 108:21 109:1 127:1,3 131:12 131:16 138:3 140:6,10 federal 10:13 22:4 36:12,16	45:19 46:2 70:10,13 104:18 124:19 federally 120:13 121:21 122:15 122:16,25 123:13 124:1 132:22 Fedorchak 2:6 8:9,10 18:9,10 19:5 20:22 34:13,16,20 54:19,20,22 74:13,15,16 77:7,8 93:24 93:25 100:17 102:20,24 feedback 13:23 23:16 24:10 25:11 39:24 55:9,12 56:3,4 56:5,7 61:25 83:11 88:19 117:2 feeding 133:21 feel 61:3 71:22 71:23 75:17 98:11 137:9,21 feeling 99:8,9 feelings 102:19 feet 22:9,12 24:19,22 26:7 26:8,11,12,12 26:14,14,21,22 30:13,17 32:23 32:25 34:6,23 38:2 51:13,18 52:12,16 53:12 54:4 80:7,13 80:16 81:2 82:18 101:21 110:18,19 felony 17:24	fencing 135:22 135:23 Ferruginous 120:3 FFA's 36:20 fiber 36:2,6 field 33:16,18 36:4 41:11 108:5 109:6 112:24 114:25 115:13,16 116:4 123:8,15 123:22 125:23 131:1 135:19 field-verified 135:16,23 136:3 fifties 95:10 figure 45:5 49:12 92:13 121:15,17 figured 58:13 file 53:22 filed 13:22 14:5 14:16 15:13,16 15:24 18:14 19:8 21:15 23:1 24:5,8 34:25 35:4 54:4 82:23 83:1 85:18 107:18 108:15 109:15 110:23 113:8 131:11 137:3,13 139:13 140:22 filing 6:4,7 109:17 137:6 137:18 141:8 filings 13:25 14:1 final 24:24 25:1 26:8 32:6	34:11 44:12 70:16 90:14,15 126:16 finalize 55:10 Finally 85:5 121:21 133:7 finance 20:5 financial 37:23 45:21 70:1 find 59:3 73:9 106:13 141:24 fine 15:5 17:24 Fire 40:24 first 8:18 9:14 15:3 17:3 38:20 42:16 62:19 67:24 69:17 90:19 91:25 92:2 first-hand 71:3 firsts 72:4 Fish 15:21,23 16:5,8 62:22 63:12 115:1 116:24,25 124:22,23 126:10,11 127:11,11,15 127:19,23 128:3,5,18,18 128:21,21,25 129:6,8 130:4 131:16 134:21 134:24 135:1,5 135:6,12 136:21 137:2 137:10,14,25 138:2 140:4,9 140:18,18 141:21 Fished 128:7 fisheries 104:7,8 five 14:7 17:25
F				
FAA 36:17,19 36:22,24 37:8 37:8 FAA-approved 37:6 facilities 5:15,22 6:11,14 17:7,8 20:2 22:19 27:8 35:24 38:1 79:6,7 facility 6:16 9:22 23:2 27:10 29:11 32:21 47:22 61:9 68:9 95:3 95:18 98:16 fact 9:4 19:3 63:17 66:14 96:18 98:14 factor 58:23,24 61:1,4 66:24 67:21 81:20 85:5,8,10 86:21 factors 27:8 48:8,10 59:6 87:7 Fahrenheit 85:1 failed 74:22 fair 40:25 41:2 41:10,12 44:17				

22:5 24:6,23 25:1,4 26:18 62:13 65:10 73:3 82:16 94:10,12 112:14 119:16 129:17 131:2 139:8 Fleck 2:10,18 7:1 fleet 57:22 flexibility 22:7 24:20 25:15 flexible 11:10 flicker 17:10 33:25 34:3 66:2 69:19 70:19 71:9 76:14 78:22 79:1,16,20 87:13,14,24 88:3,7,10,12 88:17,21,23 89:1,5,6,10,14 89:25 90:3,4,7 90:10,16,23 91:22,25 92:6 92:11,16 93:5 93:11,15 97:9 98:12 99:8,11 105:4 flight 12:12 Floor 103:22 Florida 19:18 flying 120:18,20 focus 18:20 100:24 focused 18:17 60:20,23 128:22 focusing 86:5 follow 13:4 65:14,15,22	72:10 94:5 101:11 127:3 132:13 follow-up 54:23 76:8 followed 115:20 123:8 141:19 141:25 following 6:8 40:23 41:4 44:18 47:17 65:17 66:8 115:23 121:7 122:9 139:11 followup 140:3 followup-letter 127:4 foot 52:21 Football 41:11 footprint 65:1 66:10,19,20,23 68:12 74:25 75:2,3,5,14 foraging 131:22 133:14 Force 20:13,14 foregoing 143:9 143:22 forgot 74:6 formally 97:18 format 83:12 88:19 125:16 formed 141:21 formulating 62:6 forth 11:3 13:7 105:8 forty 58:25 forty-five 143:9 forward 8:15 11:17,18 12:5 13:11,14 46:5 64:16	found 69:1 73:23 90:23 101:20 118:12 118:25 120:3,5 foundation 26:10,20 30:25 foundations 26:24 29:18 38:1 foundry 139:5 four 6:1 9:23 17:2 21:5 26:16 32:19 38:2 44:5 45:18 47:11 65:9 80:14 82:19 121:15 fourth 17:15 66:14 fragmented 130:1 132:1 frame 68:4,4 framed 63:12 framework 135:7 framing 12:21 frequencies 100:10 frequency 100:6 100:7 101:16 101:20 102:8 132:4 fro 53:13 front 16:14 fruition 62:5 64:10 fulfilled 6:19 full 27:3 57:12 64:13 65:16 67:4 70:6,10 72:2 83:23 96:5,19 108:4 full-time 38:17	fully 12:24 141:16 Furey 2:9 4:4,8 4:12 6:22,25 7:1,16 13:18 13:19 15:5 16:13,17,22 17:2 18:15 19:10,13 52:5 54:1,12 76:8 76:10 77:12,13 78:2 101:4,5 102:2,14,16 103:3,17 further 22:18 25:9 52:24 66:3 89:21,24 93:20 97:20 101:6,8 102:10 102:11 116:10 117:5 130:23 131:10,25 132:3,6 143:12 Fury 76:7 future 60:8,19 60:22 106:15	gathered 10:7 gathering 100:21 116:11 GE 21:25 22:1,2 22:8,10 general 7:10 17:5 21:17 22:1 25:17 39:17 44:21 61:18 73:11 117:21 130:10 generalization 70:7 generally 91:25 95:1 98:11 118:11 136:11 136:14 generated 28:2 43:22 87:2 94:11 generates 87:25 generating 79:6 generation 20:2 20:3 21:19 44:24 45:3 70:2 generator 19:23 28:9 generators 5:15 geologically 110:16 Germany 97:11 97:12 getting 55:7 64:25 67:1 70:16 96:14 Girls 41:5 give 9:11 18:5 52:19 70:24 72:8,10 77:23 103:13 given 51:4 66:6 87:15
G				
G 1:14 Game 15:21 16:5,8 62:22 63:12 116:25 124:22 126:10 127:10,15,18 127:23 128:2 128:18,21,25 129:7 130:4 131:16 135:6 137:14,25 138:2 140:4,9 140:18 141:21 gaps 10:24 garnering 59:14 gather 10:14				

gives 66:22,23 71:17	grab 83:20	growing 123:10 123:12	handle 30:4	hearings 5:3 40:7 56:25 72:14 76:13
giving 67:3	grade 33:18 141:5	guess 42:11 52:10 54:8 66:3 70:15	hands 7:17,19	heart 62:9
go 7:21 9:18 11:17 13:3 14:22 15:3 16:23 45:11 50:14 63:21,23 64:4,15 72:25 73:3 91:9 99:12 103:1	graduated 78:16	guidance 81:4 115:2	happens 10:3,8 71:19	heater 74:7
goal 11:12 88:6 90:9,10 91:23 94:13,19	grain 69:25	guide 26:15	happy 41:16 72:20,20 96:22	height 22:9,11 26:6
goals 11:16	Grass 130:17	guideline 80:22 81:6 86:17	harbor 22:3 63:19,24	held 39:18,19
goes 49:18 54:1 67:12 97:11	grassland 118:12 129:1 130:1,8 131:3 131:5,7,19,22 132:5 134:23	guidelines 81:1 115:2,21,25 132:14 135:13 136:17,21 141:20,23 142:1	harmful 36:9	help 63:25
going 5:8,9 9:5 9:20 12:1 13:12,21 23:23 45:11 47:25 52:11 58:15 64:4,6,14,20 67:7,16 70:20 73:4,5 83:19 94:20 95:8 96:17,19 97:5 99:16 100:16 100:24,25	grassland-ass... 115:18 118:8 118:14	guys 9:10 26:16 94:17	Hart 4:3 17:4,20 17:21 18:2,7 19:16 21:2 41:22 54:5,8 62:19 76:6,11 116:21	helpful 16:23
Golden 117:25	grasslands 62:12 130:11 130:11,13,15 130:16,17,17 131:11 133:14	habitat 63:2 112:17 115:7 115:11,14 120:12,14,23 121:6,18,22 122:1,8,16 123:1,2,4,6,14 123:16,17,20 123:22 124:3,8 131:1,22 132:12 133:2,9 133:13,21 134:14 135:17 135:20,24 136:3,4 138:7 138:21	Harvest 41:3	helps 70:3
gonna 74:19 96:12	gravel 48:4,7	guides 92:7	hashed 75:1	Hessler 15:16 85:18,25 86:5 94:3
good 6:25 9:10 12:19 41:22,23 62:16 91:6 94:19 102:24	grazed 130:14	guys 9:10 26:16 94:17	hawk 119:16 120:3	Hessler's 85:23 86:9,11,15,18
goods 38:22 39:3	great 8:11,15 12:11 57:19 103:3 114:21 119:16 120:2	habitat 63:2 112:17 115:7 115:11,14 120:12,14,23 121:6,18,22 122:1,8,16 123:1,2,4,6,14 123:16,17,20 123:22 124:3,8 131:1,22 132:12 133:2,9 133:13,21 134:14 135:17 135:20,24 136:3,4 138:7 138:21	hayed 123:12	hibernacula 124:4
Gotcha 36:2	greater 45:7	habitat 63:2 112:17 115:7 115:11,14 120:12,14,23 121:6,18,22 122:1,8,16 123:1,2,4,6,14 123:16,17,20 123:22 124:3,8 131:1,22 132:12 133:2,9 133:13,21 134:14 135:17 135:20,24 136:3,4 138:7 138:21	hayland 131:4	hierarchy 129:9
gotta 12:4	grid 28:3 58:15	habitat 63:2 112:17 115:7 115:11,14 120:12,14,23 121:6,18,22 122:1,8,16 123:1,2,4,6,14 123:16,17,20 123:22 124:3,8 131:1,22 132:12 133:2,9 133:13,21 134:14 135:17 135:20,24 136:3,4 138:7 138:21	hazard 36:22,24	high 58:18 60:25 67:24 71:24 135:22 140:13
governing 37:3	groom's 9:8	habitat 63:2 112:17 115:7 115:11,14 120:12,14,23 121:6,18,22 122:1,8,16 123:1,2,4,6,14 123:16,17,20 123:22 124:3,8 131:1,22 132:12 133:2,9 133:13,21 134:14 135:17 135:20,24 136:3,4 138:7 138:21	he'll 9:5	higher 66:25
government 27:16	grouchy 72:16 74:18	habitat 63:2 112:17 115:7 115:11,14 120:12,14,23 121:6,18,22 122:1,8,16 123:1,2,4,6,14 123:16,17,20 123:22 124:3,8 131:1,22 132:12 133:2,9 133:13,21 134:14 135:17 135:20,24 136:3,4 138:7 138:21	head 98:4	highest 62:14 84:4,6,18 93:10 118:15 132:6
	ground 26:10 38:2	habitat 63:2 112:17 115:7 115:11,14 120:12,14,23 121:6,18,22 122:1,8,16 123:1,2,4,6,14 123:16,17,20 123:22 124:3,8 131:1,22 132:12 133:2,9 133:13,21 134:14 135:17 135:20,24 136:3,4 138:7 138:21	health 76:17 80:24 99:12 100:1,11 101:11	highly 57:8 73:1 73:1
	ground-based 84:21 118:22	habitat 63:2 112:17 115:7 115:11,14 120:12,14,23 121:6,18,22 122:1,8,16 123:1,2,4,6,14 123:16,17,20 123:22 124:3,8 131:1,22 132:12 133:2,9 133:13,21 134:14 135:17 135:20,24 136:3,4 138:7 138:21	hear 11:5,22 96:10 100:13	highway 95:3
	group 78:11	habitat 63:2 112:17 115:7 115:11,14 120:12,14,23 121:6,18,22 122:1,8,16 123:1,2,4,6,14 123:16,17,20 123:22 124:3,8 131:1,22 132:12 133:2,9 133:13,21 134:14 135:17 135:20,24 136:3,4 138:7 138:21	heard 11:12 13:2 57:5 97:4	hire 38:20
	groups 55:15	habitat 63:2 112:17 115:7 115:11,14 120:12,14,23 121:6,18,22 122:1,8,16 123:1,2,4,6,14 123:16,17,20 123:22 124:3,8 131:1,22 132:12 133:2,9 133:13,21 134:14 135:17 135:20,24 136:3,4 138:7 138:21	hearing 5:4,5,11 5:18 6:5,7,7,9 8:22 9:2,12,13 10:8 12:5,6 13:12,14 14:8 14:25 19:4 42:8 64:23,23 85:19 88:11 90:11 96:13 97:3 100:20,21 137:16	historical 105:24 106:21 106:23 107:9 107:13,19 108:5,13,19,24 109:5,13,14,19 110:3,12 111:2 122:19 126:5
	grouse 115:16 118:20,23 119:4 129:4 133:19,22 134:2 136:5,7 136:10,11 139:7	habitat 63:2 112:17 115:7 115:11,14 120:12,14,23 121:6,18,22 122:1,8,16 123:1,2,4,6,14 123:16,17,20 123:22 124:3,8 131:1,22 132:12 133:2,9 133:13,21 134:14 135:17 135:20,24 136:3,4 138:7 138:21	history 107:4 107:16 108:14 109:22	history 107:11
		half 118:15 119:3 133:23 134:1 136:6,9		
		Hall 1:19 6:3		
		hand 143:15		

Public Hearing

3/8/2019

107:12,17 hit 67:25 hold 18:8 34:13 holistic 71:21 home 74:2 80:12 80:13,18 99:21 homes 82:18 honest 69:21 Honor 6:25 7:9 13:19 16:20,22 17:19 41:20 76:9 77:4,13 91:4 93:23 101:5,7 102:2 102:17 honorably 20:13 hope 73:1 Hopefully 9:19 hoping 70:15 horned 119:16 120:2 hose 139:22 hour 81:12,19 81:19,20,24 95:22 99:19 hour-sound 86:18 hourly 95:21 hours 9:23 81:25 88:6 89:19 90:6,6,9 91:23 92:8,16 95:20 97:8,12 97:15,24 98:5 98:9 house 52:15 houses 39:18 73:11,21 Houston 103:22 hs 132:9 hub 22:8,11 hubs 29:15 huge 75:13	human 6:17 85:4 130:12 humans 93:14 humidity 85:2 hundred 46:23 80:7 143:9 Hunger 41:4 hunters 75:24 Hz 85:3 <hr/> I ID 90:19 ideal 94:13 identical 83:14 88:22 identified 33:4 80:22 106:22 109:18 112:1 112:25 identifies 34:5 identify 33:22 34:8 36:12 113:12 115:9 126:24 identifying 34:22 93:8 identity 139:1 ignore 19:7 II 106:24 107:10 107:23 III 106:25 107:10 108:1 illustrated 131:10 imagery 33:21 imagine 64:5 72:25 immediately 38:4 impact 6:17 11:13,14 22:16 25:7 28:6 61:15 67:16 78:15 79:5	86:7 87:7 94:21 95:11 96:16,21 106:3 106:18 109:18 111:2,9,23 112:14,15,19 113:13,16,23 128:11 impacted 11:23 58:16 111:12 113:21 impacts 22:18 24:16 26:17,21 26:23 27:13 36:5,14 38:9 40:10 61:12,14 68:7,7 71:19 78:21 89:9 96:20 106:8 107:9,16,25 109:21 111:6,8 111:21,22 112:5,9,11 113:3,9 114:3 114:12 115:6 116:8,8,13,14 116:16 121:13 121:24 122:8 123:20,22 124:7 126:6,24 128:23 129:3 129:24,25 130:5,12,20,24 130:25 131:8 131:17,21 132:10,11,24 132:25 133:3,9 133:13,20 134:10,11,13 134:22 135:1,8 135:19 136:4 139:21 140:12 140:12	implement 123:21 126:18 136:22 implemented 84:14 133:23 importance 105:23 106:4,5 106:8,9,17 important 8:2 13:1,10 45:19 62:6 Importantly 129:19 impossible 96:17 imprisonment 17:25 inadvertently 135:25 inaudible 63:19 inches 28:16 incidentally 120:17 include 28:20 29:13 31:16 35:15 79:2 84:16 105:23 106:1 110:12 110:16 115:25 116:10 124:20 included 10:9 22:6 23:13 24:11,23 36:20 80:12 82:13 85:6,20 90:15 104:16 108:2 115:9,17 118:18 119:21 includes 83:8 85:20 88:15 103:25 136:24 including 8:6 17:6 20:15	22:20 27:8 29:14 38:1,9 40:22 80:15 89:12 104:2 115:10 118:9 121:18 124:1 125:7 127:1 129:1,12 132:15 141:10 incorporate 89:16 incorporated 110:1 128:20 129:14 incorporating 89:21 129:10 increase 48:1 87:5 94:10 95:8 96:9 increased 24:21 increases 94:13 incredibly 13:10 indicate 124:3 indicated 14:7 41:24 43:13,23 47:25 49:1 50:5 52:11 91:22 92:15 indicates 44:10 44:23 47:11 138:2 indicating 123:14 indirect 19:21 41:25 indirectly 143:14 individual's 48:18 indoors 87:17 industrial 79:7 95:3 industry 82:9
---	---	--	---	---

<p>104:15 141:22 inform 133:6 information 10:14 11:7 18:13,22,25 21:15 31:17,23 36:8 44:15 47:10 48:18 50:18,19 61:18 61:19 80:23 115:5 121:1 122:12 124:10 125:20 127:6 138:18 139:2 139:10,14 141:1,6,12 infrasound 100:6,7,10 101:16,20 102:8 infrastructure 33:7 47:7,8 106:13 107:6 112:23 113:2 121:25 122:7 126:6 133:7 134:15 inhabited 80:7 88:7 inherent 84:12 initial 125:4 initially 13:22 23:1 56:8 58:6 58:10 59:5 72:6,7 98:3 130:19 initiated 37:13 input 10:21,22 11:18 55:20 96:24 126:15 129:12 inputs 84:14 89:12</p>	<p>inquiries 39:17 inside 8:17 install 37:6 installation 37:3 installations 26:22 installed 122:9 installing 29:18 29:20 instance 130:13 instances 18:19 Institute 20:9 78:19 121:8 instituted 92:2 integrated 71:6 integrity 6:18 intend 14:19 16:24 17:2 37:2 48:8 intended 11:10 131:17 133:8 intends 9:1 intensity 87:15 interaction 67:2 87:17 115:3 122:10 132:15 135:13 interactions 126:9 140:19 interconnect 27:10 28:3 59:21 interconnecting 58:15 interconnection 26:2 27:23,25 28:6,7,10 43:24 59:11,19 interconnectio... 44:1 interest 59:14 124:15 125:10 interested 11:24</p>	<p>75:21 124:25 125:14 143:13 interference 36:9,21 81:6 intermittent 87:14 internal 32:15 33:8 65:16 internally 61:24 67:1 international 80:2 82:7 89:8 101:19 interpretation 86:19 141:13 interpreted 53:9 interpreting 114:19 intersect 121:12 introduce 6:22 31:20 inventoried 113:5 inventory 70:7 106:25 107:1,8 107:24 108:1 inversion 84:21 investment 64:18 invisibility 8:20 invisible 70:11 involve 90:15 involved 13:11 40:20 72:2 78:20 98:4 101:15 104:20 involving 33:9 irrelevant 141:24 irreversible 105:16 ISO 82:7 84:13 84:19</p>	<p>isolated 112:9 112:11,15,16 132:25 133:3 134:11,13 issue 42:23 44:11 48:13 99:13 issued 6:5 issues 6:8 28:23 48:20,21 69:14 101:24 it'd 67:5 it'll 9:14,19,23 95:25 iterative 11:9 129:15</p> <hr/> <p style="text-align: center;">J</p> <hr/> <p>jackets 74:7 January 6:6 107:21 Jay 92:22 Jerry 7:11 54:1 68:3 jet 12:14 job 8:12 9:10 12:21 13:5 jobs 38:16,18 John 16:1 joining 78:16 joint 125:23 journal 100:14 101:15 102:7 judge 2:3 5:2 11:13 12:3 54:20 74:17 102:20 Julie 2:6 12:20 July 28:10 118:10 120:7 125:4 134:4 136:12,14 junction 24:12 29:19</p>	<p>June 37:8 39:19 39:20,20 118:10 Juno 19:18 jurisdiction 112:10 jurisdictional 111:11,19,22 112:1,4 132:24 134:10 jurisdictions 88:6 92:4 98:10</p> <hr/> <p style="text-align: center;">K</p> <hr/> <p>Kayla 1:24 143:4,18 keep 12:3 70:2 keeping 41:8 62:12 Kenmare 12:14 12:15 41:12 key 62:9 keywords 11:14 kHz 85:3 Kid 41:9 kids 41:8,10 kilovolts 25:23 Kimberly 4:11 16:7 17:10 63:3 103:4,20 kind 10:14 11:8 11:13,16 44:21 55:12 61:9,19 92:19 94:10 96:22 101:11 140:5 knew 64:3 know 7:25 9:12 9:23 10:18 45:5,6,7,9 54:2 57:8,11 61:6 63:25 68:2,4,5 69:6,12,25</p>
--	---	--	---	--

74:17,21 77:18 91:12,14 97:3 98:21,24 99:2 99:2,4,7,10,18 knowing 65:16 67:7 knowledge 96:19 known 28:5 89:24 124:4 133:24 134:1 135:22 136:10 Kroshus 2:7 12:7,8 62:17 62:18 77:9,10 96:25 97:1 kV 21:7 26:4 28:4,14,21,22 59:16	24:10 31:9,10 31:17 34:9,24 35:4 39:19 48:13 53:11,12 70:22 75:3 93:12 106:14 108:10 110:24 129:14 landowners 23:16 25:14 31:11,14,19 37:25 38:10 39:17 40:8,9 64:24 69:17 70:25 71:2 72:22,23 73:11 74:24 75:4,6 75:18,18 90:20 90:22 106:12 114:7 117:3 lands 32:5 49:6 104:18 124:21 landscape-scale 116:2 landscapes 132:1 landslide 110:17 large 61:8 64:18 66:23 68:22,22 75:17 126:21 largely 141:24 larger 16:18 23:24 68:11,19 69:10 120:15 largest 19:23 late 137:6,18 141:2 latest 18:13 latitude 89:17 law 2:3 5:2 13:4 13:7 17:22 laws 104:19 laydown 22:25	layout 22:7 24:9 83:13 88:21 125:21 126:3 129:15 layouts 78:25 lays 9:21 ldn 81:7,11,16 81:17 82:1 lead 29:10 56:6 leaders 27:15 leadership 55:9 55:13 56:15 61:18 62:7 70:23 leads 68:9 lease 38:10 leave 71:12 Lee 7:13 left 7:5 122:6 legislative 8:25 legislature 8:21 lek 118:20,22,23 133:23 134:2 136:10 139:7 lekking 133:25 134:2 136:11 leks 115:16 118:25 119:1,3 119:4 133:24 136:7 length 5:23 Leq 81:17 84:3 84:6 95:24 let's 7:21 57:23 67:16 letter 16:6 40:16 40:17 62:22,24 63:1 88:14 107:21 108:21 109:1 125:5 127:16 128:5 128:13,15,24 137:2,7,10,13	137:19,22,25 140:25 141:14 141:18,25 letters 124:16,24 level 55:18 56:4 62:8,14 71:22 71:25 79:5,23 79:24 81:1,11 81:12,18,24 82:6,13,21 83:5,10,13 84:5,6,11,12 84:18 85:6,15 85:24 86:13,25 87:3,4,8 91:20 94:15,22,24 95:14,23,24,25 140:13 levels 79:2,3 80:22,23 81:5 81:13,23 82:4 82:12,17 84:3 84:4,8 85:11 86:20,22 87:7 89:5 94:25 95:2,4,7,9,20 95:21 99:24 100:8,10 101:21 116:1 liability 94:14 licensing 104:17 Lien 7:12 52:25 77:5,6 93:21 93:22 life 47:3 113:14 136:23 light 87:15 lighting 36:19 37:6 lighting-mitig... 37:4 Lights 41:11 likelihood	120:11 likewise 43:10 limit 80:6,9 81:3 81:6,7,14 82:1 84:9 86:12,16 86:18,19,22 87:6 97:13 98:12 limited 99:13,23 limits 80:1 87:1 87:5 89:14 94:13 line 1:5 5:21,22 6:10 14:11 15:10,12 20:24 21:8 25:17,20 25:23 29:2 33:14,14,15,20 34:5,7,23 42:25 43:8,10 48:24 49:2,7 49:19 50:6,8 50:11,23 51:5 51:7,12,12,17 51:19,25 52:9 52:16 53:2,3,4 53:6 57:24 60:3 67:15 93:1,3,7 105:20 106:1,2 108:24 109:4,9 110:10,15,19 111:13,25 112:2,3,6,12 112:25 113:19 113:23,25 114:6,6,9 115:3 118:25 119:2,7,9,23 119:25 120:1,9 120:24 121:11 121:20 122:7,9 122:10 123:4,6
L				
L90 95:23 labor 38:20 lagged 12:14 Lake 41:10 125:8,22 Lampeter 4:7 17:8 34:3 77:14,15,17,20 77:25 78:5 land 22:16 26:11 28:17 32:1,3 33:2 38:25 39:2,14 61:14 64:25 65:11 66:2,9 75:25 83:11 88:18 106:15 113:14 113:20 134:21 land-based 115:1,21 132:14 135:12 136:20 landowner				

Public Hearing

3/8/2019

123:16,19 129:18 132:15 132:17 135:13 135:21 lines 28:15 29:17 31:7 33:4,12,12,12 34:11 52:20 59:23 111:20 114:8 132:16 lingering 72:3 list 13:23,25 14:4,6 listed 122:15 132:22 listen 9:2 12:4 listening 71:4 97:3 listing 107:3,15 109:22 literature 106:24 114:20 little 6:2 7:20 9:11,18 18:11 69:22 74:3,4 94:4 96:22 live 66:20 71:14 71:14 LLC 1:4,8 2:15 2:23 5:12 7:2 16:3 17:12 19:21 41:25 42:1,7,10 local 10:13 34:2 35:1,8,15 37:11,18 38:9 38:20 39:2,3 39:11,15,16,25 40:20,22 54:25 55:1,4,7,8 56:3 56:3,3,5,7 61:25 69:15 70:22,25 71:6	71:9,10,11,14 71:19 73:13 124:19 locally 38:23 45:16 76:24 locals 59:15 located 5:16 21:20 23:17 25:21 32:7 34:6,10,23 36:3 54:4 58:18 60:17 75:10 99:21 106:5 110:4,18 122:23 129:22 131:3,4,6,7 138:24 location 1:19 6:10 11:22 21:17 22:6 25:17 27:5 34:8 36:25 58:2,8,14 59:4 81:25 89:12,13 93:4,6 127:18 127:20 128:8 142:3 locations 6:16 22:5 26:12,15 26:20 36:23 37:1 82:15,16 84:8 87:2 90:8 96:7 108:7,8 108:11 109:8 118:15,16 125:18 127:19 134:2 136:10 long 12:2 13:12 47:7 57:25 65:21 70:15 71:13 98:17 102:14 long-eared	115:12 123:24 124:2,6 long-term 13:1 70:21 105:16 longer 44:18 118:19 Longmire 15:13 Longmuir 40:17 look 11:18 12:5 12:22 13:11,13 48:25 50:17 60:10 63:17 66:14,16 69:15 73:15 92:13 97:19 99:25 101:17 looked 59:6 looking 8:15 12:23 49:17,21 53:2 58:14 65:3,24 66:8 68:6 69:5 70:8 74:25 92:21 98:17,18 101:19 122:18 looks 14:17 Lostwood 23:15 23:16,18,19 62:4 117:1,6 117:11,13 126:22 128:9 129:21 130:25 131:25 lot 9:12 11:10 12:19,23 14:18 44:14 55:20 59:22 61:20,22 62:14 72:4 96:12 97:4,8 low 69:25 70:14 95:1 100:6,7 102:7 124:3 133:18	lower 45:22 95:2 100:9 lunch 9:15 Lyndon 78:17 <hr/> M <hr/> M 42:16 47:22 mailer 31:21 mailers 31:15 main 1:20 23:12 78:6 103:22 maintain 25:15 31:5 maintenance 22:22 30:15 31:13 37:17 38:18 57:9 137:1 major 20:14 138:12 majority 29:9 30:24 making 12:24 60:2 86:6 87:7 manage 78:11 managed 134:23 management 20:10,16 104:6 manager 17:11 31:12,13,25 37:18 42:16 48:16 57:10 103:24 104:15 manager's 31:16,22 Mann 2:17 7:3,3 manner 105:12 manufacturer 69:3 85:9 map 14:9,10,11 14:13 23:21 24:23,24 25:1 34:11,19 49:17 49:22 50:15,17	51:21 65:24 117:8 mapping 86:3 maps 14:9 16:12 23:23,24 35:3 50:24 March 1:16 6:2 13:22 14:5 15:22,24 16:6 39:18,20 62:23 102:7 117:24 120:7 127:5 128:3,13 136:14 140:4 margin 80:25 mark 16:21 30:7 marked 16:9 21:5,8 24:6 25:3 35:5 40:12 79:11 82:23 83:1,3,5 83:17,24 85:19 88:11,13,25 107:18,22 108:20,22,25 109:2 110:23 111:23 113:8 117:8 119:21 121:5 123:6 124:13 128:15 137:3,16 138:22 139:8 marking 132:16 markings 36:19 marks 14:21 Massachusetts 78:6 Master 104:7 Masters 20:5,6 material 14:18 18:18 materials 9:17 14:2,16 20:22
---	--	--	---	--

Public Hearing

3/8/2019

Page 162

70:18 71:7 141:4 matter 8:1 142:3 143:14 matters 13:17 matures 64:12 maximized 39:4 maximizing 58:19 maximum 21:24 46:11,15 81:23 89:17 92:15,18 112:10 122:20 122:24 133:3 Maynard 78:6 mean 47:16 52:6 57:25 69:9 70:20 meaning 81:23 84:23 110:16 means 42:3 73:19 93:2 143:23 measure 22:9,12 100:8 measured 33:1 33:16,20 50:25 measurement 33:10,13 79:2 94:24 measurements 79:5 measures 123:21 126:25 129:16 132:7 134:6 135:7,11 140:15 141:17 measuring 52:14 53:1 67:7 meet 46:4 meeting 39:25 54:17 125:11	127:1 meetings 40:7 55:1,21 56:13 56:14,15 71:24 72:10 76:13,15 76:18 79:9 125:13 meets 10:16 90:10 megawatt 14:13 14:15 18:17,21 18:23,23 21:25 22:2,2,8,11 23:2,9,11 24:1 24:2,4 27:1 46:9,10 61:12 62:1 68:19,24 82:22 101:17 101:18 111:16 111:17 117:9 118:3,17,18 119:5,7,20 120:24 121:2,3 121:16 123:5 124:9,12 126:21,21 127:18 128:6,8 130:20 132:2 134:19 138:17 138:20 139:5 139:12,13 141:7 megawatts 5:16 19:24 20:2 21:20 23:6,7 23:19 26:2 28:8 44:25 46:10,17,23 56:11,24 58:6 61:3 78:23,23 116:19,20,22 116:23 117:4,5 117:12 129:20	129:20 130:23 130:23 131:24 131:24 134:16 134:16 member 78:19 members 75:19 memo 131:11 memorandum 111:23 Memorial 1:19 6:3 mention 8:18 134:7 mentioned 74:6 100:22 119:19 Mercy 137:14 merely 139:14 met 6:19 22:6 33:7 36:18,24 36:25,25 40:1 40:8 71:23 101:22 108:10 126:19,23 meteorological 22:23,24 84:24 methodologies 83:23 methodology 57:18 82:3 84:13 86:2 89:4 121:7 127:5 methods 140:3 metric 95:23 metrics 95:19 metro 66:17 micrositing 33:17 48:20 123:18 125:15 125:17 132:13 microwave 35:23 36:13 mid 103:25	migration 132:20 mile 23:17 67:14 67:17,19 73:2 119:3,18 120:6 122:4 133:23 134:1 136:6,8 136:9 miles 5:17,23 6:1 21:21 23:20 57:25 62:4 73:3,3,6 107:11 117:11 117:13 120:4 129:21,22 136:12 miles-long 25:22 Mill 78:6 million 27:21,22 38:13,25 mind 51:15 mindfulness 100:3 minimal 6:11 11:13,14 31:7 65:2 68:7 87:4 114:3 135:19 142:4 minimization 126:25 129:9 129:11 132:7 140:15 141:17 minimize 6:16 27:12 40:10 78:25 85:3 96:20,21 115:6 135:8 minimized 116:9,16 130:19,24 131:20 133:13 133:20 134:11 minimizing	128:22 Minnesota 125:6 minor 24:11,13 25:6 minus 85:11 minute 14:23 35:2 74:14 minutes 76:3 90:6,6 92:17 99:18,19 102:18,18 missed 98:24 99:1 missing 13:8 Missouri-Col... 104:10 mist 124:5 mitigate 130:4 133:8 135:8,18 mitigated 62:15 113:6 116:9,17 131:20 mitigating 116:13 mitigation 48:8 48:10 61:23 62:10 63:6,14 79:4 113:6 123:21 126:25 129:10,16 134:6 140:15 141:17 mixed 118:12 model 80:10 82:11 84:2,15 84:19,25 85:14 89:15 90:3 92:22 95:11 97:9,20 140:9 modeled 84:4,6 84:16 85:15 89:6
--	---	--	--	--

modeling 34:3 79:3,24 80:1 82:3,9,13 83:8 83:10,14 84:3 84:5,8,10,11 84:12 85:12,16 86:2 88:16,18 88:21 89:1 90:5,8,19	Mountrail 1:5 5:25 15:11 25:21 26:4 35:13,20 38:14 38:21 39:23 40:6 122:17,22 move 46:5 47:9 62:2,11 66:7 66:25 70:9 116:2 129:20 131:25 moved 117:5 132:3 moving 58:20 62:3 64:16 66:2 70:10 130:24 multigenerati... 12:24 98:15 multiple 75:19 108:3 114:25 myriad 67:11	131:14,18,21 133:9,13,20 natural 104:5 105:4 128:12 nauseous 99:8 NDGFD 133:5 NDSU 41:2 near 56:11 57:14 64:6 106:23 121:23 124:4 132:19 nearest 23:18,19 32:22,24 51:2 58:1 92:20,25 129:23 neatly 9:7 necessarily 96:5 necessary 29:14 30:10 59:17 need 26:25 45:18,20 47:22 51:9 53:10 59:7 61:3,9 86:12 needs 6:19 27:4 42:14 49:3 81:16 98:7 negative 75:17 negatively 58:16 negligible 106:18 negotiations 50:2 neighboring 48:13 neither 143:12 Nerus 44:2,3 nest 119:10,12 119:20,22,24 120:2,3 nesting 131:22 133:14,21 136:13	nests 115:15 119:4,13,16,19 120:4,7 133:15 136:8,13 139:7 netting 124:5 never 69:17,20 130:14 nevertheless 8:17 new 12:11 14:17 18:19 38:11 44:14 66:16 83:10,11 88:18 88:18 117:17 138:19 139:1 139:14 141:4 newspaper 73:12,24 76:21 newspapers 73:9 NextEra 2:15,23 7:4 16:3,7 17:5 17:11 19:16,17 19:19,21,22,23 20:1,15 33:8 42:1,4,5,9,13 42:15,19 43:23 44:10 47:12,16 48:8 49:25 51:24 60:10 103:21,23 139:19 NextEra's 32:15 45:6 NextErat 44:14 Nielsen 98:20 night 15:21 81:11 84:22 86:23 128:1 nighttime 81:13 81:20 86:19,20 nine 38:17 83:3 83:17	noise 33:25 34:3 69:19 70:19 76:14 78:19 80:24 86:7 87:3 94:6 102:6,8 non-jurisdicti... 134:12 non-native 123:14 non-participant 49:22 non-participa... 32:11 84:7 non-skilled 38:20 nonparticipati... 31:19 32:24 72:23 74:24 75:4,6 90:21 90:22 93:11,13 110:24 north 1:1,21 2:12,20 3:7 5:5 5:17 6:3,5,13 8:13 12:15 15:21 16:5,8 19:24,25 21:21 32:4 38:22 41:2 45:4 47:13 49:6 64:7 66:14 80:6 83:13 88:4,20 104:1 114:21 116:25 118:13 121:23 122:17 124:17 124:20,21 125:5 126:10 127:10,15,23 128:2,17,20,24 129:7 131:15 135:6 137:24
	N			
monopoly 26:6,9 26:19,21,23 Montana 125:6 monthly 40:2 72:9 months 30:1 99:19 morning 1:15 6:25 8:10 41:22,23 54:24 91:6,7 99:20 99:22 mortalities 136:25 mortality 132:21 136:19 motions 13:17 motto 72:20 Mountain 125:9 125:22	N 1:12,14 2:1 3:1 4:1 name 19:14,16 78:3,5 81:5 102:3,6 103:18 103:20 nameplate 21:19 narrow 12:4 National 23:15 36:7 107:3,15 109:22,25 117:1 126:22 128:9 native 115:11 124:24 127:20 128:10 129:1 129:25 130:7,9 130:10,15,17 130:19,21,24			

Public Hearing

3/8/2019

138:2 140:18 143:2,5,20 northern 115:12 123:24 124:2,5 125:7,22 northwest 1:20 132:2 northwestern 21:21 Notary 143:1,4 143:19 note 5:10 14:6 121:21 noted 135:10 notes 19:6 74:19 143:11 noteworthy 51:18 notice 6:4,5,6,7 noticed 57:3 notices 76:21 notification 124:16 November 82:22 88:10 111:16 128:6 139:6,14 141:8 nuisance 92:11 99:13,24 number 6:10,13 6:15 14:5 21:5 21:8 23:21,25 24:6 27:8 31:3 41:12 44:5 45:18 47:11 48:23,25 49:13 50:13 55:1 66:15 68:16 73:5 74:24 75:13,21 87:8 92:12,22 93:2 96:2 97:15,24 97:25 129:5	134:17 numbered 8:7 numbers 5:6 35:18 52:1 66:18 numerous 124:19 125:13 141:21 <hr/> O <hr/> O 1:14 42:16 47:22 O&M 31:13,22 31:25 oath 76:6 objection 7:16 16:20 110:25 obligation 37:25 observed 119:17 120:14,17,20 120:21 122:4 132:19 observer 87:17 obtain 32:3 49:25 51:9 obtained 15:7,9 15:11 34:24 35:10,12 49:2 49:4,8 50:7,21 110:21 obviously 69:13 occasions 40:9 occupancy 50:17 occupation 74:20 occupied 32:9 33:25 50:19 51:7 81:2 occupy 22:14 occur 27:25 63:8 71:10 84:22 87:21 109:16 120:6 121:14	occurred 117:23 123:3 occurrence 124:6 occurrences 122:23 occurring 120:12 occurs 11:4 ocean 98:1 octave 85:4 October 35:15 126:19 off-road 31:7 offer 10:22,24 140:13 offered 141:18 offers 10:5 office 5:2 39:15 41:6 76:24 officer 5:4 20:12 officers 124:17 official 56:14 officials 27:16 39:16,23 71:22 offset 80:15 127:2,3,4,7,24 128:12 130:3 131:15,16 133:8 139:23 140:11 offsets 63:14 139:21 okay 7:21,22 15:5 16:15 19:5 45:10 49:7,16 51:21 52:4,19,23 53:17,20 54:14 56:7,18,20,21 57:1,13,23 58:5,13 59:1 59:20,22 61:3	61:17 62:16 63:15 64:24 67:7 68:6,20 70:1,5 73:19 74:21 75:8 76:1 77:2 90:13 92:14 94:17 103:1 Oklahoma 104:8 old 138:3 omitted 18:16 once 29:7 56:23 58:13 72:21 108:11 ones 16:18 58:10 83:14 88:22 onsite 42:17 open 39:18 44:4 60:21 63:13 73:11,21 138:9 opened 39:15 76:23 opening 8:8 16:25 98:15 operate 29:1 97:7 operates 20:1 operating 71:1,5 81:22 84:17 87:21 89:20 operation 6:11 17:7 22:15,22 29:9 30:11 38:17 57:9 87:16 115:8 135:10 142:3 operational 37:9 89:22 122:5 136:23 operations 20:20 28:17,18 29:4,22 30:2	31:13 37:17,17 113:21 122:3 opinion 39:4 80:25 91:18 142:2,6 opportunity 7:24 8:12 10:1 10:4 11:10,19 60:21,22 61:1 71:18 72:8 74:2 137:7,18 138:5 opposed 50:23 56:21 opposite 65:9 opposition 75:12 opted 8:23 optic 36:3,6 60:20 optimal 59:10 61:1 67:4 69:2 69:2 optimize 66:24 orchestrated 9:10 order 9:21 11:17 24:19 30:2,7 32:6 83:9 87:20 88:16 ordering 29:10 29:13 orderly 6:19 ordinance 91:16 ordinances 91:8 organization 42:18 organizations 40:23 organized 90:19 organizing 9:7 original 14:13 23:9,14,22,25
--	---	--	---	---

Public Hearing

3/8/2019

Page 165

44:12 88:22 111:16 117:1 117:15 118:16 121:2,4 124:8 124:11,13 132:2 originally 23:5 23:17 46:8 62:1 120:23 other's 11:6 outcomes 116:9 116:14 outdoor 81:6,9 outdoors 81:8 outer 50:25 52:6 52:8 110:19 outlined 140:12 outlines 32:19 output 27:3 46:19,21 67:9 outreach 39:11 73:7,8,12 76:20 105:2 107:1 124:23 125:3,4,5 outside 10:8,21 73:23 120:18 122:20 123:11 overall 26:10 45:6 141:14 overarching 11:16 overhead 5:21 25:23 overlay 59:10 overseas 75:22 overseen 20:18 oversight 104:2 overview 17:6 29:5 79:22 139:20 owl 119:16 120:2	owned 42:4,5 43:16 owner 42:14 90:21 110:22 owners 38:25 39:2,14 owns 20:1 42:7 <hr/> P P 1:12,14 2:1,1 3:1,1 package 74:9 89:7 127:2,3,7 127:24 128:12 130:3 131:15 131:17 133:8 140:11 141:16 packages 82:11 pad-mounted 132:17 page 4:2 34:11 44:5,7,9 47:11 48:25 50:14 85:25 94:2 138:1,11 140:25 pages 32:17 143:10 paid 75:9 paper 141:9 papers 73:14 paragraph 138:1,6,22 139:16,18 140:24 paralegal 7:6 parallel 63:8 parameters 13:7 83:14 88:21 89:2 parcel 123:12 part 8:14 9:6 13:2,11 51:1 60:1,17 62:9	64:1 65:1 71:15 78:24 97:21 100:19 101:1,17 122:12 126:21 136:25 participate 75:14 participated 125:17 participating 22:16 25:14 31:18 32:11,22 38:10,25 50:20 53:12 75:3 84:5 90:20,21 106:12 particular 28:2 50:19 93:6,7 95:3 96:10 98:18 99:19,22 100:18,20 101:24 parties 6:21 100:22 143:13 partners 71:11 parts 8:12 65:5 65:11 pass 35:24 87:20 95:7 patches 113:1 paths 24:14 patterns 106:15 pause 35:2 paved 48:4 pay 70:13 paying 75:2 payment 64:25 payments 38:10 38:25 PCA 63:1 peak 30:23 38:16 48:3	74:19 peer 100:14 101:15 penalties 17:23 18:1 77:19 103:9 pencil 67:6 Penn 20:6 people 6:22 11:5 11:23 13:2 56:9,20 66:20 70:12 73:1,2 81:9 99:7 percent 22:4,15 46:21 49:9 58:22 61:4 63:21 66:24 69:7 85:2 106:10 108:8 109:8 123:9 131:6,7,9 percentage 67:13 perfect 70:4 perfectly 69:21 performance 22:24 performed 33:5 period 81:19 95:22 99:16 periods 30:24 95:1 96:6 perjury 17:23 17:23 18:1 77:16,18 103:6 103:9 permanent 22:13,16,22 26:17,21,23 30:12 31:4 36:24,25 38:17 106:8 111:21 112:5,9 131:7	permanently 111:12 112:14 113:13,20 permit 5:20 9:21 15:6,8,11 21:7 25:20 29:25 35:10,13 55:6 55:19 57:3 72:13 111:14 permits 35:16 35:19 64:12 permitted 122:25 123:13 permitting 35:1 35:9 54:25 63:6 104:2,13 104:17 personal 64:2 personally 101:15 personnel 30:22 perspective 9:11 pertain 91:8 Ph 138:24 phase 30:19 31:1 PhD 104:8 phones 5:7 photographs 8:6 physical 38:3 pick 95:23,23,24 96:2 picked 57:23 pier 26:20,24 pilots 57:19 pipeline 98:23 place 6:4 12:11 30:2,25 50:3 53:18 66:10 72:15 78:6 125:14 134:3 135:22 placed 26:12
---	---	---	---	--

Public Hearing

3/8/2019

Page 166

<p>placeholders 20:25</p> <p>placement 106:13 113:22</p> <p>places 33:10,22 72:12 81:10 107:4,16 109:22</p> <p>placing 29:19</p> <p>Plains 114:21</p> <p>plan 7:19 25:6 37:16,22 47:12 102:25 115:2 127:22 136:15</p> <p>planes 57:4</p> <p>planned 21:18 29:4 131:2,5</p> <p>planning 35:13 39:14 40:4,6 55:14,14,16,23 56:8 57:7 76:12 129:11</p> <p>plans 28:24 37:20 60:4</p> <p>plant 22:25 115:6</p> <p>planted 130:16</p> <p>plateau 58:21 73:4</p> <p>play 13:10</p> <p>please 5:7,10 8:3 17:21 19:14 21:16 23:2,21 24:7 25:16 27:23 28:11 29:5 34:8 40:13 78:3,12 79:22 80:4 81:3 83:2 85:7 90:12 103:18 105:6,19 106:20 107:7 107:23 110:8</p>	<p>111:1,9 112:19 113:12 114:22 115:20 117:18 125:2 126:9 130:6 132:8 138:8,10,23 139:9 140:6</p> <p>PLLP 2:10,18</p> <p>plus 85:11</p> <p>PM 81:21</p> <p>point 13:13 20:21 26:3,18 26:18 33:11,13 48:17 51:2,3,6 51:11,16 53:6 53:7 58:1 59:11,19 60:7 67:1 68:12 72:6 80:12,17 82:18 108:8 113:20 123:15 141:18</p> <p>pointing 93:3</p> <p>points 67:13 80:13 82:17 89:13 116:5 140:24</p> <p>pole 26:7,12,19 26:20,22 29:21 50:22 51:1,13 51:19,22 52:3 52:6,7,8,17 54:7 113:21</p> <p>poles 52:2,11,14</p> <p>policies 39:7</p> <p>policy 39:8 44:23 75:2 105:11</p> <p>polished 76:21</p> <p>political 39:12</p> <p>Polytechnic 20:9</p> <p>Pool 41:1</p>	<p>Pool's 28:5</p> <p>populated 66:15</p> <p>population 38:9 66:18</p> <p>Porsborg 3:4</p> <p>portion 102:15 132:2</p> <p>position 19:19 103:23</p> <p>positive 38:8</p> <p>possibility 60:6 60:7,18</p> <p>possible 35:23 38:23 52:15 93:11 124:6 126:18</p> <p>post 29:12 31:13 41:7 132:20</p> <p>post-construct... 31:24 136:16 136:19</p> <p>posted 73:9</p> <p>potential 27:7 33:22 36:21 38:6 78:21 86:7 89:8 94:6 107:9,25 111:1 111:5,7,9 112:19 113:12 115:6 116:6,8 123:2 124:1 128:23 129:24 131:21 133:9 133:20 134:11 135:8</p> <p>potentially 107:3 109:21 112:1,4 115:10 115:14 121:9 134:17</p> <p>potholes 112:9 112:12,15,16 133:1,3 134:11</p>	<p>134:13</p> <p>power 22:23 26:3 27:2,3 28:2,5,13,21 43:17,21 50:23 51:12,13,25 52:16,20 53:2 53:3,4 68:14 79:6 81:23 85:6,10,13 115:3 122:10 132:14 135:13</p> <p>Powers 41:10</p> <p>PPA 45:22</p> <p>PPAs 64:11</p> <p>practicable 40:11 112:11 112:24 113:4 120:7 134:1 136:14</p> <p>practice 57:21</p> <p>practices 32:16 39:6,7 122:11 132:15 135:14</p> <p>prairie 62:12 112:9,12,15,16 115:11 127:20 128:10 129:1 129:25 130:7,9 130:10,20,21 130:24 131:8 131:14,18,21 133:1,3,21 134:11,13</p> <p>pre 19:4 67:25</p> <p>pre-constructi... 29:11 115:24 118:2 126:14</p> <p>precedent 88:5</p> <p>predict 64:14 89:4</p> <p>predicted 82:5 84:2 90:4</p>	<p>92:16 116:7</p> <p>prefer 12:17 14:25</p> <p>preferences 129:14</p> <p>preliminary 13:16 126:16 139:20</p> <p>preparation 104:20</p> <p>prepare 9:13 96:21</p> <p>prepared 8:7 60:1 105:5</p> <p>preparedness 37:12</p> <p>preparing 104:24 135:4</p> <p>presence 115:14</p> <p>present 7:18 69:11 90:22 100:7 105:19 105:22,25 110:9 111:5 114:8,16 116:7 127:20</p> <p>presentation 7:23 8:8 91:9</p> <p>presented 79:8 89:25 139:11</p> <p>presents 90:3</p> <p>preservation 6:15 142:7</p> <p>president 16:2</p> <p>pretty 8:16 57:24 62:24 95:8 99:12</p> <p>prevailing 67:15</p> <p>previous 25:11 77:16 83:15 103:6 118:17</p> <p>previously 14:16 19:2</p>
---	--	---	--	--

Public Hearing

3/8/2019

Page 167

35:5 56:20	70:17,21 71:25	32:18,20,20	113:25 114:3,9	29:7,13 30:11
98:10 119:18	72:4 115:22,23	33:1,4,16,24	115:5,8 116:12	31:25 32:10
135:15 138:16	129:11,15	34:1 35:14,23	116:19,22	33:3 35:12,20
139:11 142:5	procurement	36:3,14,15,16	117:4,5,7,7,10	38:7,8,12,15
prices 45:22	37:14	36:23 37:4,10	117:12,14,20	38:19,24 40:2
69:25 70:14	produce 6:11	37:21 39:15,18	117:23 118:1,6	41:16 63:7
primarily 21:22	46:11,14 142:4	39:21,22,25	118:17,18,24	64:10 65:5,10
25:25 113:24	produced 45:11	40:8 42:5,12	118:25 119:1,3	70:9 78:21,22
116:23 123:13	46:16 89:24	42:15,20 43:1	119:5,7,7,11	83:12 88:20
primary 48:17	producers 70:14	43:13,19,22	119:13,17,20	92:5 97:13
104:16	producing 82:10	44:8 45:11,20	119:23,25	98:5 104:17
prior 29:8 31:14	production 22:4	45:21,25 46:6	120:4,14,18,22	106:23 109:18
31:17 36:4	45:19 46:2,3	46:9,10,11,14	120:24 121:2,3	109:20 110:5
50:3 63:2	106:19	46:20 47:4,21	121:10,16,23	111:9,14
78:16 108:16	productive 12:3	47:22 48:5	121:24 122:7	113:23 114:21
109:17 119:6	professional	49:23 55:11,17	123:3,5,17	118:4,21
139:2	20:10,11	56:6,10,12,15	124:4,6,9,12	120:12,21
private 30:21	104:12	58:4 60:5 62:3	124:16 125:1	121:14 122:18
104:17	program 41:8	62:8,8 63:20	125:10,21	122:21,24
privy 73:25	94:24 122:2	64:12 65:1	126:3,6,21	123:7 124:15
proactively	progressive	69:15 72:23	127:18,19,20	126:19 127:9
25:12	116:1	73:14,22 78:24	128:6,9,11,19	127:14 129:12
probabilities	project 5:22	79:14,16,21	128:24 129:17	133:16 134:6
89:22	11:11,14,17,21	82:3,22 83:13	129:19,21	135:10,18
probability	14:9,13,14,15	84:7 86:8 88:3	130:1,10,21,22	142:4,6
116:7	15:8 17:6	88:20 89:5	131:10,23,25	projects' 112:19
probable 120:3	18:17,18,21,23	90:8,9 91:23	132:3,3 134:16	prom 41:7,8
probably 9:15	18:24 20:10,16	92:10 94:6,7,9	134:19,20,20	promise 18:4
9:23	20:24 21:16,18	94:11,14,21	135:20 136:24	77:22 103:12
problem 98:22	21:19,22,24	96:23 98:12	139:5,13,21	propagation
problematic	22:7,14,20	105:9,14,16,20	142:3	80:3 82:8,9
87:6	23:3,5,6,8,9,11	105:22,25	project' 111:1	84:20,23
procedure	23:17 24:1,2,4	106:3,6,6,10	project's 23:12	property 33:12
132:18	24:9,11,17,24	106:21 107:6	23:14 27:19,20	33:14 38:11
proceed 14:24	24:25 25:1,2,3	107:12 108:9	27:23 28:11	40:10 75:10
116:15	25:4,7,9,12,17	108:18 110:9	29:6 37:14	92:24
proceeding	25:18,22,24	110:11,25	104:21 117:1	propose 127:1
79:18	26:1,5,17,25	111:4,6,12,13	129:14	proposed 5:23
process 10:12	27:3,13,17,21	111:16,17,18	projected 93:10	6:11,14,16
11:1,4,9,9 12:3	28:4,12,18,19	111:25 112:2	projects 17:14	21:20 23:5
13:2,11 29:6	28:20 29:17	112:12,13,21	20:18 21:13	28:19 29:9,13
31:9 54:25	30:2 31:5,6,15	112:23 113:13	25:12 27:6,25	33:13 38:8
63:7,7 69:18	31:19 32:8,13	113:15,15,19	28:2,25 29:2,3	49:19 51:11

Public Hearing

3/8/2019

Page 168

79:3 82:4,14 82:15 105:9 120:1 125:17 127:4 133:7 proposes 29:3 29:25 proposing 130:3 131:14 protect 80:24 protected 134:23 protocols 126:16 136:24 provenance 94:14 provide 8:23 10:2,10 11:10 14:1 17:5 22:7 24:15,20 29:5 31:20 37:23 38:12,24 39:21 39:21 54:12 61:9 70:18 79:19,22 82:2 104:2 114:18 122:11 131:21 133:14,21 141:9 provided 10:6 11:8 14:8 15:18 33:7 55:10 56:24 80:11 91:7 111:18 112:16 125:25 127:7 127:12,16 128:5 138:3,12 139:19 141:1,2 141:4,6 provides 85:10 providing 9:16 11:5 17:17 40:22 55:7	provision 63:19 provisions 30:7 proximate 135:24 proximity 23:15 27:11 36:14 117:1 126:22 PSC 9:13 13:24 15:14,22 19:2 PSC's 47:17 91:19 PTC 69:7 70:10 PTCs 70:5 PU-18-302 1:4 5:6 PU-18-344 1:8 public 1:2 2:5 3:10 5:3,5 6:5 7:11,12 10:1,7 10:13 13:3 31:6 39:11,13 40:7 41:1,11 41:12 55:20 56:14,25 73:20 76:20 79:9 80:24 88:4 100:22 104:17 143:4,19 publications 99:25 published 36:12 pull 94:3 pulling 109:7 punishable 17:24 purchase 27:2 purchased 64:4 64:13 purpose 24:7,14 79:17,19 105:6 115:4 138:14 138:15,25 purposes 69:1	81:16 pursuant 30:6 37:5 110:20 113:7 pursue 27:14 96:12 pursuing 36:23 37:7 pursuit 55:5 push 68:14 put 53:25 67:20 68:23 92:6 96:5 putting 45:21 67:23	93:20,22 97:2 97:6,6 100:16 100:24 101:3,6 101:8,25 102:10,11 142:10 Quick 74:22 quiet 81:10 quit 13:13 quite 9:16 57:25 59:22 62:5 73:5 98:6 102:16	reached 11:7 55:3 reaching 55:4,6 59:13 read 98:21,23 100:4 140:25 reading 92:20 94:8,11 99:1 real 97:5 realize 63:3,15 66:17 67:11 68:13 69:8 72:5 realizing 58:6 98:19 really 8:14,22 9:10 11:18 13:25 18:20 44:18 50:16 65:8 67:16 68:11 74:18 92:4 96:15 99:4,21 reason 11:21 42:15 43:6,7 43:11 73:15 reasonable 46:18 reasons 60:16 75:13,15 97:23 142:5 recall 45:2 receipt 32:6 receive 9:21 10:15 31:15 received 13:24 15:21 20:5 25:11 36:7,22 57:1 62:1,22 64:23 104:5 108:20 109:1 128:1,13 receives 64:12
				R
				R 1:12,12,14 2:1 3:1 radar 35:24 railroad 49:18 49:22 50:1 raised 116:24 127:8 128:25 ranch 12:18 Randy 8:18,23 range 26:7,18 78:23 84:4 90:5 95:9 96:3 96:4 122:21,24 ranging 14:21 26:14 raptor 115:15 117:19 119:4 119:10,12,19 119:20,22,24 120:6 136:8,12 136:13 139:7 raptors 136:5 rate 93:18 rating 98:20 ratio 65:10 re-evaluate 116:18 reach 73:10,12 73:23
		Q		
		qualification 78:12 qualified 69:6 qualifies 69:7 qualify 22:4 45:18 qualifying 63:18 quality 10:19 quarry 110:17 quarter 67:14 67:17,19 119:18 120:6 136:7 question 16:11 42:11 50:16 52:10,19,23 53:1 65:4 70:16 72:16,16 74:18,22 94:2 questions 7:13 8:4 13:24 41:16 44:6,20 49:16 54:23 69:12 72:3,8,9 74:3,5,5,6,10 74:13 76:8 77:4,6,8,10		

Public Hearing

3/8/2019

Page 169

<p>receiving 75:7 receptive 80:13 97:22 receptor 81:24 83:11 84:5,7,8 84:23 85:16 87:2 88:18 89:13 90:8 92:22 93:4,9 receptors 79:25 84:3 90:5 Recess 76:5 142:12 reclaimed 110:17 113:18 reclamation 31:24 recognize 63:5 63:13 132:22 recommend 55:17,17 57:9 recommendat... 55:24 56:2 58:9 recommendat... 115:3 122:10 126:1,18 127:13,14 128:19,22 129:6 140:8 recommended 44:24 58:2 110:1 128:10 recommending 94:12 recommends 94:5 reconcile 63:25 reconfirmed 120:25 124:9 reconnaissance 106:24 107:8 record 6:1 10:6</p>	<p>10:6,8,9,12 141:3 recorded 117:25 recording 9:2 records 122:19 RECROSS 74:16 red 74:25 red-tailed 119:16 redirect 74:15 76:7,10 101:4 reduce 31:3 129:25 reduced 23:6 25:10,13 56:16 116:19,22 126:20 134:17 reducing 117:4 117:11 129:19 130:22 131:23 134:15 reduction 23:11 23:13,18 117:7 117:14 129:25 reevaluated 117:15 reference 35:19 referenced 50:15 138:22 references 138:6 referring 93:7 refined 24:9 89:21 refinement 89:24 refinements 78:25 refuge 23:15 117:2 126:23 128:10 129:22 134:25 regard 114:2</p>	<p>118:5 120:16 123:24 127:10 130:9 131:19 133:12,19 134:9 135:3 136:5 141:13 regarding 13:24 14:1 15:9 17:6 17:17 30:9 37:12,20 79:10 113:11 127:8 128:6 131:14 139:25 regards 122:14 132:23 134:21 135:15 region 38:7 59:9 87:23 103:25 regional 136:24 Register 107:4 107:15 109:22 109:25 regular 55:7 regulation 80:5 80:20 87:11 regulations 34:2 37:3,5,24 80:21 82:20 91:25 97:17 110:21 regulatory 7:4 80:1 86:6 92:7 reinvested 39:3 reiterate 35:4 138:15 relate 29:10 116:5 related 44:8 108:9 116:25 132:9 143:12 relating 6:9 30:7 relation 114:19 128:9</p>	<p>relationship 42:9 70:24 72:5 100:14 relative 85:2 94:14 118:13 reliability 6:18 reliably 27:10 relied 92:7 religious 125:19 125:25 126:7 relocating 128:10 rely 10:20 remain 24:22 remaining 32:3 35:15 109:10 109:12 116:13 130:2 131:13 remarks 17:1 41:13 reminded 98:13 removal 30:4,9 remove 38:1 removed 31:2 106:17 113:5 removing 130:21 renewable 16:2 17:4 19:20 20:17 60:24,25 104:15 renewables 97:21 repeated 87:18 rephrase 69:23 replaced 119:6 replacement 30:9 replicas 16:18 report 15:15,18 82:21,24,25 83:5,8,15,23 85:20,24 86:4</p>	<p>88:10,15,23 91:12 92:15 107:13,14,18 107:20 108:18 108:23 118:2 119:21 121:2,4 123:5 124:11 125:15 126:4 136:25 138:12 138:25 REPORTER 1:24 143:25 REPORTER'S 143:1 reporting 136:23 reports 14:3 18:19 19:1,3 90:16 111:17 126:17 138:3,5 138:16 139:2 141:10 represent 47:10 Representative 15:13 40:17 representatives 125:17 REPRODUC... 143:23 request 5:3 28:7 43:20 44:12 108:10 requested 28:23 requesting 43:23 44:2,10 required 17:22 26:15,16 47:20 50:11 65:18,21 86:25 94:18 111:14 requirement 57:4 63:16 requirements</p>
---	--	---	--	---

Public Hearing

3/8/2019

Page 170

<p>30:9 32:21 33:19 36:17,20 39:25 82:20 99:3 requires 81:17 requisite 80:24 residence 32:11 34:6,10,22 51:17 53:2,4,5 53:7,7 54:4 66:1 80:8 110:18,22 residences 32:7 32:9,10 33:9 33:22,25 79:1 resident 32:23 residential 81:8 residents 32:24 51:13 66:16 residual 130:4 131:17 140:12 resource 12:20 58:17,18,19 59:10 60:13 104:6 105:1,4 108:4,6 109:4 109:6 125:15 resources 2:15 2:23 6:15 7:5 16:3,7 17:5,12 19:17,22 27:9 42:1,13 103:21 106:25 107:1 107:24 108:1 110:12 111:2 125:24 128:12 142:8 respect 44:20 48:7,20 49:7 50:19,23 79:13 80:1 90:10 91:22 92:11 100:11 105:18</p>	<p>106:16 110:7 111:4 112:21 114:5 117:19 118:20 119:10 119:22 120:10 129:8 138:1,21 respective 36:4 respectively 110:20 respond 86:9 responded 125:10 130:7 132:9 responders 37:11,19 response 13:23 24:10 36:7 61:20 62:23 99:9 136:22 responsibilities 104:16 responsibility 104:1 responsible 42:12,20 65:14 103:25 104:23 restating 51:15 restore 38:3 restrict 135:25 restrictions 29:25 56:12 65:16,18,19,20 66:5,10 restrictive 32:17 34:2 84:9 91:19,20 result 39:5 89:1 92:10 102:1 111:8 113:21 114:10 140:8 resulted 23:7 125:11 131:2 resulting 87:16</p>	<p>results 17:18 34:4 79:8 83:8 83:16,18,22 84:1,16 88:3 88:16,24 90:2 90:14,23 93:4 105:14 108:12 114:16,19 117:18 118:3 119:20 124:2 126:1,3,17 131:10 retained 79:15 revenue 38:11 38:13 review 33:17 35:3 36:20 100:14,19 101:1,15 108:19,25 137:7,19 138:5 reviewed 33:21 85:17 reviews 115:9 revised 84:1,8 90:2,7 117:16 125:20 revising 126:3 revives 139:7 Richard 4:7 17:8 77:14 78:5 Richmond 1:24 143:4,18 richness 118:13 132:4 ride 139:21 right 15:1 42:23 44:22,25 52:13 53:3,15,16 57:19 59:16 66:7 69:8,22 70:3 74:10</p>	<p>94:12 97:4,24 98:21 117:9 right-of-way 53:9,15 54:7 rights-of-way 33:4,5 risk 64:13,17 133:17 risks 124:1 River 113:2 125:7 road 29:24 30:24 33:4 35:16 47:9 48:4,7 60:1 108:7,10 roads 22:20 24:14 29:16 30:10,12,16 31:4,6 47:23 113:24 roadways 114:7 Rock 125:16 Rodeo 41:10 role 79:13 98:14 roles 20:15 room 14:11 23:24 87:19 99:14 roosting 124:3 Rosebud 125:8 125:16,21 rotate 87:20 rotor 120:19 route 5:20 14:12 21:7 25:20 31:6 34:7 51:17 54:5 routine 137:1 royalty 38:10 rule 54:5 61:11 rules 37:24 47:17 65:17,22</p>	<p>run 28:13 63:7 run-off 10:18 running 65:9 runs 136:11 rural 21:22 25:25 66:18 Russ 15:14 Rust 40:18 rustling 95:4,6</p> <hr/> <p style="text-align: center;">S</p> <hr/> <p>S 1:12,14 2:1 3:1 safe 22:3 41:8 63:18,24 safety 80:25 sales 38:11 saying 10:22,23 10:24 11:1 67:19 95:13 99:4 says 50:21 65:25 92:20 schedule 31:17 44:9,10,17 scheduled 29:23 Schmidt 3:3 4:5 4:9 7:8,9,10 13:18,19 15:2 15:16 16:19,20 41:18,20,21 77:3,4 91:2,4,5 101:7 102:3,10 School 41:7,9,12 schools 33:9,22 41:11 Schweigert 3:4 science 20:5,8 78:18,18 104:5 104:7 sciences 104:9 scientific 114:19 scope 17:7 79:17 Scratch 72:16 seal 143:15</p>
--	---	---	--	--

Public Hearing

3/8/2019

Page 171

search 106:24	sent 16:4,6	33:7,9,9,11,16	sheet 5:8 8:3	114:10 116:7
season 123:11	31:22 124:16	33:18,20,24	92:13	significantly
123:12 133:25	124:24 125:5	59:12 65:18,25	shift 108:10	23:8 31:3
134:3 136:11	separate 23:23	66:8	shining 87:22	117:5,6 134:17
136:13	42:22 64:23	sets 105:8	89:19	signing 69:24
second 17:8 18:9	September 5:11	setting 65:23	short 57:12	silence 5:7
67:24 70:13	35:11 40:3	114:11	138:5	similar 65:5
138:1,6 139:16	123:8 138:18	seven 32:9 61:11	short-term	87:25 128:14
139:18 140:24	139:3,11 141:2	61:13 62:3,4,4	86:19	simple 67:20
140:25	141:6	66:20,22	shorthand	93:16 97:5,6
secondary 74:20	series 90:18	111:25 117:13	143:10	simplify 81:5
section 31:7	95:20	121:11 129:17	show 6:1 7:17	simply 141:5
33:12,14	serve 5:4	129:22 131:12	7:19 56:21	simultaneously
111:13 124:18	served 20:12	shadow 17:10	120:10	84:17,24
129:16,17	serves 88:14	33:25 34:3	showed 121:8	single 26:7 28:7
sections 75:1	service 1:2 2:5	69:19 70:19	showing 34:21	Sioux 125:9
securing 63:1	3:10 5:4,5 6:6	76:14 78:22,25	shown 111:23	sir 42:24 43:2,9
see 7:19 8:19	7:11,12 10:13	79:16,20 87:13	112:6 117:7	43:12,15
46:20 57:1,24	15:24 40:25	87:14,23,24,25	118:4,19 119:5	Sisseton-Wah...
59:13 68:3	43:24 44:1	88:2,7,9,12,17	119:8 120:8	125:8
70:12 71:4,10	62:20 88:4	88:21,22 89:1	121:15,17	sit 71:8
74:19 100:9	115:1 116:24	89:5,6,10,10	shows 100:5	site 5:13 21:3
Seeing 101:8	124:23 126:11	89:14,20,25	140:2	25:6 26:13
102:11	127:11 128:5,7	90:3,4,7,10,16	SHPO 109:17	30:21 31:2
seek 11:17 43:7	128:19,21	90:23 91:22,25	shrank 117:6	48:5 61:20
seeking 25:19	129:7 134:22	92:6,11,16	shrub 113:6	62:2,2 75:14
130:2 131:13	134:24 135:1,5	93:5,11,14	shrubs 112:22	105:18 116:3
seen 65:5	135:12 136:21	97:9 98:12	113:4	116:11 136:6
seizures 93:17	137:3,11	99:8,11 105:4	shut 57:13 122:5	site-specific
93:19 99:5	140:10,19	shadows 87:19	side 9:8 56:12	116:4,11
select 27:5	services 17:11	share 42:8,9	62:3 75:13	sited 49:19
selected 27:17	38:22 39:3	71:18 127:6	sighting 22:7	113:3 119:2,18
84:13 85:2	103:24	135:5	65:14 129:8	121:25 122:7
selection 105:11	Session 1:15	shared 126:16	sign 5:9 8:3,3	126:6 142:2
105:13 113:11	sessions 9:4	126:20	59:15	sites 27:7 71:1
114:2,5	100:20	sharing 48:17	signed 63:2 75:8	105:24 106:2
Senator 15:14	set 6:4 13:7	sharp-tailed	significance	106:21,23
40:18	34:19 65:19	115:16 118:22	50:22 107:5	107:2,5,9,14
senior 7:4 17:11	81:7	118:23 129:3	111:5,7 125:19	107:16,25
17:16 103:24	setback 32:21	133:19,22	125:25 126:7	109:19,21,23
sense 66:13	33:19 54:6	134:2 136:5,7	significant	109:24,24
sensitive 85:4	setbacks 25:14	136:10	24:17 92:10	111:4,7 125:18
109:23 115:10	32:12,19 33:1	She'll 7:6	95:8 109:24	125:24 126:7

Public Hearing

3/8/2019

Page 172

<p>siting 1:6,10 11:16 27:18 32:14 55:10 63:16 64:3 65:20 100:19 110:7 115:22 115:23 128:23 129:15 130:1 133:7 sitting 97:3 situations 53:8 six 26:11 30:1,8 32:10 40:4 55:1 61:11 76:13 113:9 117:24 118:25 119:15 129:1 size 23:7,13 30:14 59:18 68:18 78:23 116:19 117:12 117:14 134:16 sized 28:15 65:5 sizes 68:15 skews 66:18 skilled 38:20 skipper 115:11 115:15 122:14 122:19,25 123:2,4,22 131:1 135:15 135:17,24 136:3,4 skippers 122:15 slash 67:6 slogans 74:21 small 66:10 73:25 106:18 112:25 smaller 16:13,16 23:8 Smith 3:4,5 snow 135:23</p>	<p>society 97:20 107:13,19 108:5,13,14,19 108:24 109:5 109:14,14 110:3 126:5 sod 130:13 software 82:6,7 82:11 84:15 89:6 solar 60:11,13 61:6,8 solutions 106:13 somebody 53:10 soon 57:8 sorry 18:10 36:2 49:14 52:22 56:23 68:17 sort 98:8 sought 126:15 sound 17:9 44:25 66:1 71:4,9 78:22 79:1,2,3,5,15 79:20,21,22,24 80:1,3,4,6,9,19 80:22,23 81:1 81:11,12,18,23 81:24 82:2,4,5 82:8,9,10,12 82:13,17,21,25 83:4,10,13,17 83:23 84:2,3,3 84:5,6,7,11,12 84:18,20 85:6 85:10,13,15,23 86:3,12,13,16 86:20,22,24 87:1,7,8,11 90:16,23 91:8 91:15,18 94:2 94:11,14,22,24 94:25 95:2,3,4</p>	<p>95:7,9,12,17 95:20,21,23,24 95:25 96:10,13 96:17 98:22 99:7,24 100:1 100:8 105:3 Sounds 103:3 source 95:3 sourced 38:23 sources 84:16 96:11 South 125:6 Southwest 28:5 space 60:2 67:12 67:17 113:25 span 112:3 136:2 spanned 121:19 spanning 121:13 123:18 sparse 112:22 speak 72:9 special 7:10 species 115:18 115:19 116:6 118:8,9,10,11 118:13,14 120:11,14 122:16 123:14 124:1 127:22 129:2 130:8,18 131:19,22 132:4,5,22 specific 26:13 101:23 108:17 129:16 130:6 132:8 specifically 54:6 55:4 64:11 86:22 97:11 99:11 100:1,6 101:20 130:18 138:19 139:5</p>	<p>140:23 141:18 specifications 113:7 specified 6:7 spectrum 12:16 12:17 speed 67:4,4 84:18 speeds 96:1 spend 9:23 81:9 spending 8:16 spent 20:14 spin 93:18 Spirit 125:8,22 Sponsorship 41:1,2,3,7,9,10 SPP 28:6,7,10 43:24 44:2 sprawling 65:12 spray 57:4 sprayed 48:15 spraying 48:11 57:5,7,11,14 spring 109:13 117:22,22 square 26:20,22 staff 13:24 41:15 122:5 132:21 136:24 stages 39:14 stakeholders 39:24 stand 74:22 standard 80:2 82:7,8 88:5 91:19 standardize 118:1 standards 32:16 32:17 88:2 101:19 Standing 125:9 125:16</p>	<p>standpoint 69:5 start 59:13 98:4 started 55:3 starting 40:23 45:16 55:3 108:16 state 1:1 8:14 9:20 10:13 11:15,25 17:23 19:14 20:6 34:2 41:2 44:23 54:6 63:1,5 65:15 66:6,15 71:1 78:3,17 79:25 81:14 82:20 87:1,10 103:18 104:1,8,18 107:13,19 108:4,13,14,19 108:24 109:5 109:13,14 110:2 121:23 124:19 126:5 127:22 143:2,5 state's 80:4 stated 121:16 statement 53:18 53:21 64:7 101:11 139:25 states 19:25 20:13,19 45:18 50:20,20 66:3 66:4,16 78:16 85:25 121:1 124:10 139:18 statewide 105:23 106:4,5 106:8,9,16 124:5 stating 36:9 Station 41:6 stationary 87:24</p>
--	---	---	--	---

Public Hearing

3/8/2019

Page 173

87:25	structures 22:14	subsequent	summary 79:20	123:11
stations 79:8	26:6,15 29:21	119:15	107:17	surveyors 108:3
status 32:2 35:1	47:20 88:7	subsequently	sun 87:17,22	110:2 125:21
35:8 88:19	struggle 64:1	23:4 82:24	89:16,18	surveys 29:16
107:7,23	struggling 70:15	subset 138:16,18	sunlight 89:17	108:3,4,6,11
141:11	studied 28:5	139:2,4,10	sunshine 89:21	109:4,6 112:24
stay 8:23	35:22 99:25	subsets 141:5	supervised	115:13,16
steel 26:6,9	studies 17:13,18	subsidiary	104:23	117:15,19,21
Steinwand 16:4	18:14,16 28:6	19:22 41:25	supplement	117:23 118:1
step 28:21 64:18	63:2 71:7	42:4	10:25	118:20,22,23
77:11 102:12	100:2,15	substantive	supplemental	119:15 120:15
140:5	104:25 105:2,4	130:12	18:21 21:14	120:18,22
Stewart 104:22	114:14,17,22	substation 5:25	support 27:3,12	123:7,8 124:5
105:1	114:25 115:4,9	22:21 26:4	30:14 40:16,18	125:23 126:2,3
stipulate 13:20	116:4,18	28:4,9,12,20	55:7	133:6,23
14:23 15:4	117:16 118:19	28:20 29:17	supported 141:3	139:19
16:9	120:10	43:14,16 47:22	supporting	SWCA 123:1
stopover 112:17	study 36:11 86:1	82:14 123:12	21:14	swear 18:4
121:9,18,25	86:5 94:7,9	sufficient 33:24	supposed 34:20	77:22 103:12
122:8 132:12	95:15 101:15	sufficiently	sure 13:6,8	swept 120:19
133:1 134:14	101:17 102:4	116:16	16:16 51:16	sworn 143:7
134:18	107:11 118:2	suggested	60:10 62:15	system 6:18
stopping 120:21	118:16 119:4,5	122:11 127:24	64:2 93:3	27:11 28:1,6
stored 70:8	119:7 120:8,15	132:15 135:14	96:18 141:9	28:12,14,19
storm 70:5	126:14,15	suitability 121:6	surface 28:17	37:4,7,9
straight 12:4	studying 101:24	suitable 112:17	30:13 123:20	68:15 136:23
76:25	stuff 19:7	115:11,14	123:22 136:4	136:24
strain 67:23	subdivisions	121:9,14,18,25	surprising	Systemically
strategy 62:10	39:12 55:2	122:8 123:15	141:24	139:17
64:8 135:4	subject 29:24	123:16,17,19	surrounding	systems 22:21
stream 67:25	submittals	132:11 133:1	89:11	36:13,15
street 1:20 77:1	83:12 88:19	134:14,18	survey 33:2,3,6	
103:22	submitted 14:4	135:17,20,23	33:18 107:13	<hr/> T <hr/>
stress 12:22	18:20 19:3,10	136:3	107:18 108:18	T 1:12,12
stringent 33:7	44:14 49:1	suite 2:11,19	108:23 109:10	112:12
strong 62:24	91:12 104:25	78:6	109:17 118:15	table 7:2 14:22
struck 98:7	107:12,21	summarize	119:10,12,15	17:22 32:17
structure 26:7,9	108:4,13,19,21	78:12 105:6,14	119:20,22,24	90:19,19
26:16,21,23	108:24 109:2,5	114:17 126:24	120:5 123:2	tables 28:19
50:18,20,21,22	109:13 119:6	summarizes	125:15 126:4	90:18
51:1,2,7,18	126:5 137:25	118:3 139:10	139:7	take 7:24 9:15
54:7 81:2 88:1	138:16 139:3	summarizing	surveyed 33:14	48:8 61:25
110:20 113:22	140:3	127:4	109:12 123:10	73:15 74:14
				76:2 100:23

Public Hearing

3/8/2019

Page 174

102:15,21 141:12,13 taken 7:22 33:10 33:13 76:5 125:13 141:15 142:12 143:11 takes 134:3 talk 12:15,22 54:16 62:11,13 68:3,3 71:2,20 talked 12:19 46:8 47:19 54:24 71:23 94:4 99:5 talking 51:21 65:2 66:19 67:13,14 68:7 69:18 70:12 73:7 97:20 tande 26:4 28:4 28:8 43:14,16 Tanya 7:5 targeted 133:5 tax 22:4 38:11 38:13 45:19 46:1,3 70:11 taxes 70:13 team 31:21 teams 41:5 technical 97:4 technicians 71:16 telecommunic... 36:11,13 telecommunic... 35:24 36:8 telephone 36:2,5 tell 6:23 7:24 17:22 55:2,24 74:23 temperature 84:21,25 temporarily	111:12 112:13 113:16,23 temporary 22:23 30:16 31:4 36:25 109:7 111:21 112:5,8 113:24 ten 48:25 98:19 123:11 ten-mile 133:16 tended 118:14 tenure 12:25 term 17:25 71:13 117:17 terminate 28:19 terms 13:3 62:25,25 66:15 67:9 68:5 69:14 70:1,5 70:19 71:25 97:4,8,21 99:3 terrain 89:15 Terry 16:4 testified 47:14 54:8 76:11,20 76:23 135:16 141:3,25 testify 5:10 7:18 13:9 27:16 114:13 143:7 testifying 8:4 48:19 testimony 7:22 8:24 9:16,24 10:2,5 13:3 18:4 22:18 34:4 39:9 41:24 47:14,19 49:3 50:16 77:22 79:17,19 85:17 86:1 90:25 91:7 94:3 103:12	105:7 122:13 123:23 142:9 testing 29:21 Texas 66:17 103:22 thank 7:9 9:7 11:25 12:6,8 13:14 16:22 20:21 35:8 40:19 41:13,17 41:20 54:14,18 54:18,20,20 62:16,19,21 72:18,21 74:11 74:17 76:1 77:2,11,13 78:3,8 85:7 90:25 91:4 94:1 96:23 101:14 102:13 103:3,18 138:21 142:10 That'd 46:23 61:15 themes 129:1 thing 10:3 12:20 12:22 64:2 98:2 138:24 things 12:12 13:6 47:23 54:23 57:2 69:19 71:8 98:13 100:12 think 7:25 9:17 10:23 11:21 61:17 63:17 65:8 68:5 69:12,20,21,23 72:2 74:6 76:1 94:1 96:15 97:19,21,24 98:3,4,9,25 99:5,11 102:24	thinking 64:6 102:20 third 17:10 141:4 thorough 98:25 thought 58:10 thoughts 60:2 threatened 120:11,13 122:16 124:2 three 6:16 14:9 30:7 65:9 72:6 85:25 86:4 90:18 94:2 102:9 113:9 115:24,25 116:3 120:17 121:17 122:19 122:22 141:4 throw 97:8 thumb 61:11 tie 43:13 tied 10:11 tier 116:1,2,3,5 116:10,15 tiers 115:24,25 tightened 65:12 tighter 67:12 tillage 130:12 tiled 130:14,15 time 6:4 8:8 9:3 12:1 14:25 16:8,23 17:19 29:10 37:9 41:15 48:25 50:3 54:21 56:10,22 57:12 60:4,9 61:2 63:8 65:4,23 66:1,2 68:13 69:17 70:23 74:11 81:10 98:4,17 99:16	102:16 104:16 141:8 142:11 timeframe 72:13 138:6 timely 6:20 times 40:4,6 46:16 47:1 48:2 61:13 76:13 93:17 95:5 Timothy 2:3 5:1 tinnitus 100:12 Tioga 6:1 tip 22:10,13 tish 12:13 Title 33:2 Tock 125:9 today 6:24 7:6 7:14,18,19 8:22 12:1,6 16:24 17:3 39:10 42:23 79:18 98:16 105:7 139:7 today's 10:7,9 tolerant 97:25 tone 141:14 top 59:12 95:11 topic 122:12 topics 76:18 topsoil 30:4,9 tot 114:2 total 22:15,18 76:13 94:9,21 131:7 touched 72:24 tower 22:6,10 22:12,23,24 29:18 30:25 36:18 towers 29:14 30:18,18 108:10
--	--	---	---	---

Public Hearing

3/8/2019

<p>town 71:14 73:25 township 79:9 townships 23:16 71:3 117:3 Tracy 7:4 traditionally 54:3 traffic 36:21 48:1,4,7 training 132:21 TRANSCRIPT 143:22 transcription 143:10 transfer 79:7 transformers 28:21 29:15 132:18 translate 45:22 transmission 1:5 5:21,22 6:10 14:11 15:10,12 20:24 21:8 25:17,20 25:22,23,24 26:1,5,17 27:11,21 28:1 29:2,21 31:5 33:20 34:5,6 34:11 35:12,14 42:25 43:8,10 48:24 49:2,7 49:19 50:6,8 50:11 51:12,16 57:24 105:9,20 106:1,2 108:23 109:4,9 110:10 110:15,18,20 111:13,25 112:2,3,6,12 112:25 113:19 113:22,25</p>	<p>114:6,6,8,9 118:21,25 119:2,7,9,23 119:25 120:1,9 120:24 121:11 121:19 122:6,9 123:3,6,16,19 129:18 132:17 135:18,21 travel 30:20 travelers 114:7 travels 74:1 tree 113:6 trees 112:21 113:1,3,4 tribal 17:14 105:2 107:1,4 108:3 110:2 125:2,16,21,23 tribally 109:23 tribes 108:3 124:20,24,25 125:5,7,12,14 125:19,22,25 126:8 Tribune 73:16 73:18 trigger 93:19 100:11 trips 30:23 trouble 74:1 92:20 true 10:23 truncate 62:2 trust 32:5 49:6 70:23 124:21 truth 18:5,5,6 77:23,23,24 103:13,13,14 143:7,7,8 try 61:7 63:10 92:6 trying 59:25</p>	<p>64:14 68:5 69:13 turbans 57:10 turbine 5:15 22:5,16 23:18 23:19 29:14,18 30:16,17,25 32:23,24 33:14 49:6 63:25 64:21 65:4,24 67:14,24,25 68:1,15,18,22 69:2,3 71:5 75:9 78:25 81:18 82:15,16 85:6,9,12 87:16,19,21,23 87:24 89:14,20 89:22 92:21,21 92:25,25 93:7 93:8 100:9 101:18 117:10 117:13 125:18 129:23 turbines 21:24 22:1,2,3,3,8,11 23:9 26:2 28:13 29:20 33:6 36:15,18 38:5 57:13 62:12 63:18,24 63:24 64:3,9,9 64:19,20 65:14 66:7,25 67:2,8 67:18,20,23 68:21 69:9,9 70:6 71:19 75:24 81:22 82:5,10,14 84:24 85:14 87:2 89:9,11 89:13 92:1 93:18 96:7,8</p>	<p>99:22 100:2 101:16,21 102:8 107:12 119:2,17 122:2 122:3 130:21 131:2,4,5 132:19 133:24 136:6 turbulence 68:1 turbulent 67:24 turn 12:12 23:21 44:5 48:23 49:12 50:13 57:14 92:12 138:8 Turtle 125:9,21 twenties 95:9 two 6:13 18:12 19:8 24:12 34:11,15 40:6 42:22 43:3 50:13,14 59:6 63:11 67:18 72:6 73:3 85:5 85:7,11,12,14 92:13,13 107:11 108:6,7 108:9 116:2 131:4 138:2 140:24 141:3 type 44:1 54:3 68:8 70:18 98:2 99:9,13 99:23 types 30:20 71:7 typically 30:12 30:17 47:8 85:9</p>	<p>128:5,7,18 129:6 134:21 134:24,25 135:5,12 136:21 137:2 137:10 140:18 ultimate 45:23 ultimately 10:16 11:2 42:19 45:11 55:16 57:1 68:10 unable 131:18 unadjusted 81:14 unbroken 62:12 130:10,17 131:3,5,8 uncertainty 85:5,8,10 116:12 underground 22:20 28:14 29:17,18 132:16 underneath 52:16 understand 18:1 45:5 74:12 103:8 115:4 141:23 understanding 18:3,12 45:24 47:21 49:21 57:12 64:13 72:2 77:21 81:18 103:11 Understood 61:22 undertook 107:8,24 unevaluated 107:5 unfortunate</p>
--	---	---	---	--

Public Hearing

3/8/2019

Page 176

63:11 unfortunately 12:10 United 20:13 78:16 Universe 19:18 University 20:6 20:7 104:6,8,9 unstable 110:16 unsurveyed 108:9 109:11 109:12 update 31:20 56:24 updated 24:3 82:24 83:8 84:2 88:15 90:3 117:16 updates 39:21 55:7,8 83:7,9 88:17 uploaded 15:14 15:22 19:2 137:15 upright 22:10 22:13 USACE 111:11 112:10 132:25 use 6:15 10:10 15:6,8,10 35:10,13,16,19 55:19 57:3 61:11 67:16 72:13 73:14 81:11 83:11 92:4 106:15,17 115:4,15,15 117:19,21,23 118:1,2 120:15 120:22 133:11 133:17 142:7 useful 47:3 user 45:12,13	uses 28:17 82:7 USFWS 115:21 115:25 132:13 133:5 137:22 utility 7:12 20:16 33:4 35:17 36:4 70:11,13 utilize 53:6 63:23 66:9,12 utilized 32:12 33:18 82:8 utilizing 58:17 <hr/> <p style="text-align:center">V</p> <hr/> value 87:4 132:6 values 89:23 variability 68:8 variety 27:15 97:23 100:2 various 14:3 15:19 20:15 28:15 39:5,6 40:9 42:6 70:9 75:15 76:21 78:15 92:3 99:25 101:18 101:22 125:11 138:2 vary 94:25 95:21,22 99:17 varying 81:9 95:14 vegetation 95:4 95:6 vehicles 30:15 30:20,21 48:1 verified 123:15 123:22 131:1 135:19 verify 33:17,19 Vermont 78:17 versions 86:4 versus 51:3	66:18 98:1,8 114:15 viability 45:21 vice 16:2 viewshed 114:9 vintage 22:3 63:23 69:6 visibility 135:22 visible 73:5 114:7 visit 12:11 visits 116:3 visual 114:10 vital 8:22 voiced 110:25 voltage 28:21 volume 34:18 35:6 83:4,6 88:11,13 138:9 voluntarily 112:8 122:4 126:20 voluntary 59:14 63:14 115:21 127:2,7,24 128:12 130:3 131:15,16 132:7,13,18 133:8 135:12 136:20 139:23 Volunteer 40:24 volunteered 140:11 volunteers 59:14 vulnerable 69:22 <hr/> <p style="text-align:center">W</p> <hr/> Wade 2:17 7:3,3 waiver 34:23,25 35:4 50:6,21 53:10,17,21,24 53:25 54:2,3	54:11,15 110:22 waivers 50:7 51:9 waking 66:25 walk 13:21 14:20 72:24 139:15 want 8:5,18 13:7 40:14 41:14 44:4 53:25 56:9 65:22 71:17 75:24 94:5 96:18 98:21,23 99:15 101:14 wanted 8:25 16:15 67:21 wants 74:22 warehouse 70:6 warnings 77:16 wasn't 43:10 58:9 98:24 water 10:19 48:11,11,14 waterbird 133:6 waterfowl 115:18 118:9 127:21 129:3 132:23 133:5 133:10 waters 132:25 134:12 Watershed 121:8 watt 118:4 way 43:6 62:7,7 63:11 68:4,4 70:16 73:23 92:6 94:8 98:12 ways 70:4 129:6 130:6 132:8	WCS 135:7 we'll 9:18 15:3 54:16 74:14 76:2 103:1 we're 8:17 11:25 12:23,23,24 13:8 42:22 44:21 56:21 64:17 65:2,9 65:24 68:7 69:1 72:20 98:25 100:23 100:25 we've 34:17 64:13 65:6 69:1 100:18 wearing 8:20 weather 29:25 35:24 41:6 74:8 wedding 9:8 week 139:19 WEGs 115:21 116:4 weight 11:2 30:14 100:5 welcome 12:8 142:10 welfare 6:12 80:24 well-developed 84:21 Well,s 128:15 Wells 4:11 16:7 17:10 22:17 27:16 48:19 61:22 62:11,13 63:3 103:4,5,7 103:10,15,20 139:25 went 62:25 86:3 138:17 weren't 75:20
---	--	--	--	---

Public Hearing

3/8/2019

Page 177

5:17 17:16 21:21 98:1 wetland 104:11 105:3 111:15 111:23 112:5 115:19 129:3 132:23 wetland's 111:19 121:14 wetland-assoc... 118:9 133:10 wetlands 65:25 110:14 111:10 111:11,20,22 112:1,4,5 113:1 121:9,18 132:24 133:9 133:13 134:9 134:10,18 whatnot 14:3 White 113:2 wholly-owned 19:22 41:25 whooping 112:17 115:12 120:16,17,20 120:22 121:6 121:10,19,22 121:24 122:4,6 127:21 129:2 132:12,19 133:2 134:14 134:18 138:6 139:1 wide 30:17 65:13 widely 81:9 widening 24:18 widest 110:20 width 24:13,21 wildlife 15:24 17:13,16,18 23:15 63:2	104:7,9,10 105:3 114:12 114:14,16,17 114:22 115:1,4 115:7,7 116:24 117:2,15,19 120:10 124:23 126:11,13,14 126:23 127:11 127:22 128:5,7 128:9,18,21,23 129:7,24 132:10 134:5 134:22,24 135:1,3,4,5,9 135:12 136:21 136:22 137:3 137:11 140:18 141:10 win 11:3 wind 1:4,5,8,9 2:15,23 5:12 5:14,14,24 6:9 7:2,20 9:13 14:9,13 15:7,7 15:9,11 19:21 20:1,3,15,18 20:19,24 21:4 21:16,18,18,23 21:24,25 22:2 22:8,11,13,19 23:1,2,3,5,6,9 23:12,17 24:5 24:11,17,25 25:2,3,7,9,18 25:18 27:1,3,5 27:7,9,13,20 28:9,11,13 29:1,2,2,20,25 30:2,4,8,22 32:7,10,12,14 32:16,18,21 33:1,16,24	34:1 35:10,11 35:22,23 36:11 36:16,18,21,23 37:2,4,6,11,21 37:22,25 38:1 38:2,6,12,18 39:4,12,13,18 39:22 40:1,3,7 40:19,21 41:9 41:25 42:4,7 42:25 43:6,11 44:22,24 45:3 46:25 49:5 55:6 58:17,17 58:18,19 59:10 60:14,23 61:1 61:16 64:6 65:7,7 67:3,4 67:15,25 71:5 71:16,18 76:11 76:17 78:21,25 79:13,21 81:21 82:5,9,14,15 82:16,22 84:17 84:24 85:6,9 85:11,13 87:2 87:16,19,21,23 87:24 89:9,11 89:12,13,19,22 89:23 92:1 93:7,18 95:1 96:1,7,7 97:13 98:5 99:22 100:1,8 101:16 101:18,21 102:8 105:9,22 105:25 106:3,6 106:6,20,22 107:8,11,24 108:9,18 109:10,20 110:1,9,11,21 111:1,4,6,12	111:18 112:13 112:21,23 113:13,15 114:3,12,20,23 115:1,20,21,25 116:14,18,19 116:22 117:4,5 117:6,10,13,20 118:6,21,24 119:1,3,11,12 119:17 121:10 122:1,3 123:3 123:20,25 124:14,16,18 125:18,20 126:2,5,12 128:8,17 129:17,19 130:7,10,19,22 130:23 131:9 131:13,20,24 132:9,11,13,14 132:23 133:4 133:12,19,22 133:25 134:5 134:10,22 135:4,10,12,16 135:18,20,21 136:2,6,8,15 136:16,18,20 136:22 137:9 137:21 141:19 141:21,23 142:1,2 wind's 21:3 28:24 37:20 95:6 113:7 125:2 133:7 wind-powered 19:23 winded 74:3 window 87:22 windows 87:20	WindPRO 89:7 89:10,20 Wine 114:24 wired 26:16 wise 68:24 wish 41:18 91:2 witness 4:2 17:1 17:3,8,10,15 41:19 77:12 91:3 102:15,21 103:2 143:6,15 witnesses 6:23 16:23 17:3 Wmann@cro... 2:22 wonder 53:17 68:9 wondering 92:24 100:25 woodland 113:1 woodlands 110:14 112:20 112:22 113:3 113:10 Worcester 20:9 word 69:23 73:25 work 9:3 31:8 57:4 63:6 68:13 100:20 113:25 worked 39:22 40:9 78:22 126:17 133:4 works 11:1,9 60:8 worst 81:22 89:18 97:12,15 worst-case 89:10 wouldn't 52:15 wrap 69:13 write 139:22
--	--	---	---	--

Public Hearing

3/8/2019

writing 74:21	zone 120:19	88:11 89:2	2.72 21:25 22:8	2018 5:11 20:20
written 19:6	zoning 35:14	131:6	20 12:25 34:25	35:11,15 39:20
110:22	40:5,7 55:14	1200 26:14	35:5 85:1	40:1,3,3 41:4,5
wrong 68:16	55:16,23 56:8	52:11	98:19,22	44:11 64:15
Wyoming 125:6	66:5 69:16,16	122 3:6	110:24 125:4	82:22 88:10
<hr/> X <hr/>	76:12 80:21	13 44:5,7 79:12	200 5:16 14:14	107:20 111:16
X 4:1	91:8	106:9 138:3	18:20,23 21:20	117:22,24
<hr/> Y <hr/>	<hr/> 0 <hr/>	13,520 19:24	23:7,10,18	118:24 119:25
Yankton 125:9	0.06 22:17	130 26:7	24:2,4 26:1	120:5 123:9
yard 22:25	0.25 120:4	14 5:11 20:1	27:1 28:8	126:19 127:16
Yeah 21:14	136:12	34:11,12 50:14	46:10,10,17	128:7,24
68:25 75:15	01754 78:7	50:15 71:1	56:23 61:3,12	130:22
77:17	02 26:18 108:8	107:19	82:22 111:17	2019 1:16 5:18
year 12:25 27:2	05 113:20	145 143:9	116:19,22	6:2,6 28:10
63:20 88:7	<hr/> 1 <hr/>	15 5:17 21:21	117:4,12 118:4	29:3,4,24 30:3
89:23 90:6,7,9	1 85:3	39:19 74:14	118:18 119:4	37:1,9 39:21
91:23 92:8,16	1,000 101:21	76:3 78:14	119:20 121:3	44:15 46:1,4
99:20 117:24	1,250 20:2	98:22 107:21	121:16 123:5	82:25 83:7
132:20 136:18	1,273 113:16	107:22 108:20	124:12 126:21	88:13,14
139:3,6 141:5	1.3 117:11	109:7 111:19	129:20 130:23	107:22 108:21
141:22	1.5 68:16 78:23	111:20 114:20	131:24 134:16	109:1 126:23
years 17:25	101:17	127:1 131:6	134:20 138:19	127:1,3,5
20:12,15 38:14	1.715 22:1,2,10	15-20 26:12	139:5,13	128:3,14
39:1 47:5,9	68:21	150 24:19 80:13	200-foot 25:24	131:12,16
72:6 78:14	10 20:12 81:13	82:18	2003 20:7	143:16
98:6,16,19,19	81:20 82:23	150-foot 25:23	2010 20:10	2020 44:25
98:20,22,23	83:5,24 99:18	15th 16:1 140:10	44:24	2025 44:24
104:13 114:20	10,000 17:24	143:15	2011 102:7	208 139:15
130:16	10:00 81:21	16 30:12 106:10	2012 115:24	20s 95:5
Yep 44:8 55:14	100 1:20 2:11,19	160 26:8	136:20	21 39:21
yesterday 12:10	22:4 49:9	17 68:19 108:22	2015 20:6 22:3	22 35:15
15:15,17,25	63:21 69:7	18 36:9 108:25	63:18 64:5	22,000 66:11
85:19 128:13	100-foot 80:15	121:15	69:6	22,900 64:20
137:3,14	100% 46:2	19 4:4 19:25	2016 63:23	66:19
140:22	104 4:12	27:22 104:13	64:15 126:13	22,933 21:23
yield 97:12	10th 103:22	109:3	2017 36:9 39:16	23:11
York 12:11	11 20:15 88:13	1974 80:22 81:4	39:19,19,20,20	23 6:6 20:20
66:17	88:25 90:17	1st 140:7	40:1,24 41:4	84:4
younger 70:2	92:12,22 93:2	<hr/> 2 <hr/>	55:3 64:15	23,582 23:12
<hr/> Z <hr/>	93:3,3 123:10	2,714 32:23	73:9 117:22,24	24 32:4 81:12,19
zero 90:5,6 98:8	123:11	2,734 32:25	118:10,24	81:25 86:18
	12 38:17 44:9	2.0 109:8	119:13 120:19	124:24 125:5
		2.3 101:17	123:8 125:5	24-hour 86:21

Public Hearing

3/8/2019

<p>25 90:6 92:16 96:3 119:5,21 128:6 250 2:11,19 38:15 78:6 26 108:21 109:1 124:13 127:3 138:23 262-foot 22:11 27 10:12 121:5 124:17 127:16 138:7 270 27:20 277 134:19 28 38:13 41:12 123:6 29 118:19 290.3 50:21 295-foot 22:8</p> <hr/> <p style="text-align: center;">3</p> <p>3 78:6 3,225 106:7 30 19:3 27:1 38:14 39:1 47:5,9 88:6 90:6,9 91:23 92:8,17 97:8 97:12,15,24 98:5,9,19 99:18 102:17 118:4 300 14:13 18:17 18:22 23:2,6,7 23:9,25 38:15 46:9 56:10,23 58:6 62:1 64:21 65:3 78:23 111:16 116:19,22 117:4,9 118:3 118:17 119:6 120:24 121:2 124:8 126:21</p>	<p>127:17 128:6,8 129:19 130:20 130:22 131:24 132:2 134:16 134:19 138:17 139:12 141:6 301 64:21 31 28:10 37:1 46:1,4 111:24 32 111:18 33 32:18 111:18 33408 19:18 34 14:15 32:18 38:24 112:7 34.5 28:14,21 344 5:6 345 5:21 21:7 25:22 26:4 28:3,22 59:16 35 14:9 16:12 36:1 74:25 36 14:11 37 5:22 14:6,7 14:12,19 16:12 23:21,25 25:22 57:25 117:8 38 14:21 15:5,6 23:9 35:18 39 15:8 35:18 390 110:19</p> <hr/> <p style="text-align: center;">4</p> <p>4 35:11 82:25 83:7 88:13,14 107:20 4-1 32:17 40 15:6,10 26:20 35:18 54:15 134:20 400 26:14 404 111:14 41 15:12 40:12 40:16 42 4:5 15:12</p>	<p>40:13,17 43 15:15,19 85:19 431.5 22:12 44 15:19,20 128:4 137:16 138:1 45 15:23 47:11 102:18 128:15 137:4 450 110:18 46 15:25 49:1 84:7 140:1,6 140:10 46,515 23:10 47 14:21 15:19 16:6,10,21 84:4,5 96:4 140:1,2 48 26:15 28:16 49:1,10,10 485.5 22:9 49 81:1,3,24 84:9 91:21 4C 49:12,14,15</p> <hr/> <p style="text-align: center;">5</p> <p>5 95:12 127:5 5,000 44:25 45:8 5.8 131:8 50 24:19,22 30:17 46:21 58:22 61:4 66:24 80:7,16 81:14 85:1 91:21 96:3 500 34:6,23 51:13,18 52:21 53:12 54:4 85:3 55 62:11 81:7 82:1 130:21 56 90:4 57 131:5</p>	<p>58501 3:7 58502 2:12,20 58721 1:21 5th 16:6</p> <hr/> <p style="text-align: center;">6</p> <p>6 82:22 88:10 128:13 131:12 600 30:22 48:1 52:16 65.7 22:14 66 113:14 68 21:25 69:9 69-06-01-05 124:18 6th 13:22 14:5 15:24</p> <hr/> <p style="text-align: center;">7</p> <p>7 128:3 7.4 23:19 7:00 81:21 70 85:2 700 19:17 701-224-7554 2:13,21 701-258-0630 3:8 708 103:21 729 25:25 113:23 75 131:6 76 5:14 21:24 26:2 64:19,20 82:15 131:2,5 77002 103:22 78 4:8 26:22 7th 15:22 62:23</p> <hr/> <p style="text-align: center;">8</p> <p>8 1:16 6:2 80 26:8 63:21,22 800 26:12 81 82:14</p>	<p>87 123:15</p> <hr/> <p style="text-align: center;">9</p> <p>9 5:18 39:19 83:1 90:17 9:00 1:17 6:2 90 78:20 81:2 92 4:9 9613-2 82:7 84:13,19 98 123:9</p>
---	---	--	---	--