

December 20, 2022

VIA E-MAIL AND FEDERAL EXPRESS

Mr. Steven Kahl
Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

**RE: Bowman Wind, LLC's Application for a Certificate of Site Compatibility for the Bowman Wind Project, Bowman County, North Dakota
Case No. PU-21-121**

Dear Mr. Kahl:

Enclosed for filing in connection with the above-referenced matter are an original and six (6) copies of the following documents, submitted by Bowman Wind, LLC:

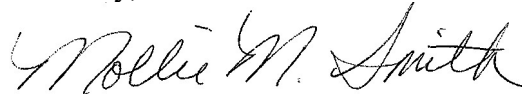
1. Motion to Consider Post-Hearing Filings;
2. Supplement to Exhibit No. 19: Additional North Dakota Game and Fish Correspondence;
 - a. Supplement to Exhibit No. 19(a): October 13, 2022 email and attachments;
 - b. Supplement to Exhibit No. 19(b): October 13–19, 2022 emails;
 - c. Supplement to Exhibit No. 19(c): October 31–November 5, 2022 emails;
 - d. Supplement to Exhibit No. 19(d): November 18, 2022 email;
 - e. Supplement to Exhibit No. 19(e): November 21, 2022 emails;
 - f. Supplement to Exhibit No. 19(f): December 1, 2022 email and attachment;
 - g. Supplement to Exhibit No. 19(g): December 12, 2022 email;
 - h. Supplement to Exhibit No. 19(h): December 13–14, 2022 emails;
3. Supplement to Exhibit No. 22: Pre-filed Testimony of Scott Jansen;
4. Late-Filed Exhibit No. 42: Update Regarding Current Project Layout;
 - a. Late-Filed Exhibit No. 42(a): Updated Figure Showing Current Project Layout;
 - b. Late-Filed Exhibit No. 42(b): Updated Comparison Figure; and
5. Certificate of Service.

Electronic copies of the enclosed documents and this letter were filed with the Commission today via e-mail. A USB drive containing updated GIS information is also enclosed.

Mr. Steven Kahl
December 20, 2022
Page 2

If you have any questions, please let me know.

Sincerely,

A handwritten signature in black ink, reading "Mollie M. Smith". The signature is fluid and cursive, with the first name "Mollie" being more prominent than the last name "Smith".

MOLLIE M. SMITH

MMS/bd/77896573

Enclosures

cc: Judge Timothy Dawson (via e-mail, w/ encl.)
Adam Renfandt (via e-mail, w/ encl.)
Brian Johnson (via e-mail, w/ encl.)
Kevin Pranis (via e-mail, w/ encl.)
Brenna Gunderson (via e-mail, w/ encl.)
Scott Jansen (via e-mail, w/ encl.)

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Case No. PU-21-121

**IN THE MATTER OF BOWMAN WIND, LLC'S
APPLICATION FOR A CERTIFICATE OF SITE
COMPATIBILITY FOR THE BOWMAN WIND
PROJECT, BOWMAN COUNTY, NORTH
DAKOTA**

CERTIFICATE OF SERVICE

Alicia P. LaValla, being first duly sworn, does depose and state that on December 20, 2022, this Certificate of Service and true and correct copies of the following documents:

1. Filing Letter;
2. Motion to Consider Post-Hearing Filings;
3. Supplement to Exhibit No. 19: Additional North Dakota Game and Fish Correspondence;
 - a. Supplement to Exhibit No. 19(a): October 13, 2022 email and attachments;
 - b. Supplement to Exhibit No. 19(b): October 13–19, 2022 emails;
 - c. Supplement to Exhibit No. 19(c): October 31–November 5, 2022 emails;
 - d. Supplement to Exhibit No. 19(d): November 18, 2022 email;
 - e. Supplement to Exhibit No. 19(e): November 21, 2022 emails;
 - f. Supplement to Exhibit No. 19(f): December 1, 2022 email and attachment;
 - g. Supplement to Exhibit No. 19(g): December 12, 2022 email;
 - h. Supplement to Exhibit No. 19(h): December 13–14, 2022 emails;
4. Supplement to Exhibit No. 22: Pre-filed Testimony of Scott Jansen;
5. Late-Filed Exhibit No. 42: Update Regarding Current Project Layout;
 - a. Late-Filed Exhibit No. 42(a): Updated Figure Showing Current Project Layout;
 - b. Late-Filed Exhibit No. 42(b): Updated Comparison Figure;

were sent by electronic mail to:

Steven Kahl
Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480
ndpsc@nd.gov

Adam Renfandt
Analyst, Public Utilities Division
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480
arenfandt@nd.gov

Brian Johnson
Advocacy Staff
Special Assistant Attorney General
ND Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480
brljohnson@nd.gov

Timothy Dawson
Administrative Law Judge
Office of Administrative Hearings
2911 North 14th Street, Suite 303
Bismarck, ND 58503
tjdawson@nd.gov

Mr. Kevin Pranis
Marketing Manager
LIUNA Minnesota & North Dakota
81 E. Little Canada Road
St. Paul, MN 55117
kpranis@liunagroc.com

and sent via Federal Express to:

Steven Kahl
Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480
(7 copies)

/s/ Alicia P. LaValla

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Bowman Wind, LLC
Bowman Wind Project – Siting Application
Bowman County, North Dakota

Case No. PU-21-121

Motion to Consider Post-Hearing Filings

Pursuant to N.D.C.C. § 28-32-25, Bowman Wind, LLC (“Bowman Wind”) hereby moves that the North Dakota Public Service Commission (“Commission”) consider additional post-hearing filings in the above-referenced case. Specifically, Bowman Wind requests that the Commission consider proposed supplements to Exhibit Nos. 19 (including 19(a)–(h)) and 22, and proposed Late-Filed Exhibit No. 42 (including 42(a), and 42(b)):


- Supplement to Exhibit Nos. 19 and 19(a)–(h): Bowman Wind has engaged in further coordination with North Dakota Game and Fish Department (“NDGFD”) regarding recommendations made in the NDGFD’s July 22, 2021 letter to the Commission. The coordination is summarized in Supplement to Exhibit No. 19, and copies of e-mail correspondence are provided as Supplement to Exhibit Nos. 19(a)–(h).
- Supplement to Exhibit No. 22: Provides an update to the prefiled testimony of Scott Jansen regarding the execution of a Generator Interconnection Agreement for the Bowman Wind Project (“Project”).
- Late-Filed Exhibit Nos. 42, 42(a), and 42(b): Provides an update regarding the current Project layout, an updated figure showing the current Project layout, and an updated comparison figure. The Project layout has been updated to remove turbines 71 and 73 and associated facilities.

The information is relevant and competent, as it provides an update to testimony presented at the public hearing and addresses Commission comments made at the public hearing and during the Commission’s subsequent working sessions and meetings.

For the reasons set forth above, Bowman Wind respectfully requests that its motion be granted and that the Commission consider the above-referenced exhibits.

Dated this 20th day of December, 2022.

FREDRIKSON & BYRON, P.A.

By 

MOLLIE M. SMITH, ND Bar #06714

BRIDGET A. DUFFUS, ND Bar #09235

Attorneys for Bowman Wind, LLC

200 South Sixth Street, Suite 4000

Minneapolis, MN 55402-1425

(612) 492-7270

msmith@fredlaw.com

bduffus@fredlaw.com

Bowman Wind, LLC
Bowman Wind Project
Docket No. PU-21-121

Supplement to Exhibit No. 19 – Additional North Dakota Game and Fish Correspondence

Following the August 24, 2021 public hearing, the North Dakota Public Service Commission (“Commission”) requested that Bowman Wind, LLC (“Bowman Wind”) engage in further coordination with the North Dakota Game and Fish Department (“NDGFD”) regarding recommendations made in the NDGFD’s July 22, 2021 letter to the Commission. In accordance with the Commission’s request, Bowman Wind engaged in the following additional coordination with the NDGF:

- October 13, 2022: Bowman Wind e-mailed a request for additional information to NDGFD related to its recommendations. Copies of the e-mail and attachments are provided as **Supplement to Exhibit No. 19(a)**.
- October 13–19, 2022: Bowman Wind and NDGFD exchanged e-mails regarding conveying shapefiles. Copies of those e-mail exchanges are provided as **Supplement to Exhibit No. 19(b)**.
- October 31–November 5, 2022: Bowman Wind and NDGFD exchanged e-mails regarding scheduling a meeting to discuss NDGFD’s recommendations, and agreed to meet on November 22, 2022. Copies of those e-mail exchanges are provided as **Supplement to Exhibit No. 19(c)**.
- November 18, 2022: Bowman Wind e-mailed NDGFD responses to NDGFD’s recommendations #2 and #4, noting that it considered those recommendations to be addressed. Additionally, Bowman Wind reiterated its October 13, 2022 request for information. A copy of the e-mail is provided as **Supplement to Exhibit No. 19(d)**.
- November 21, 2022: Bowman Wind e-mailed NDGFD regarding planned attendees at the November 22, 2022 meeting, and NDGFD e-mailed requested information to Bowman Wind. Copies of the e-mails are provided as **Supplement to Exhibit No. 19(e)**.
- November 22, 2022: Bowman Wind met with NDGFD at NDGFD’s offices in Bismarck, ND. Brian Johnson, Commission Staff, also attended the meeting.
- December 1, 2022: A summary of the November 22, 2022 meeting and Bowman Wind’s plans to address NDGFD’s recommendations #1 and #3 were e-mailed to NDGFD. Copies of the e-mail and attachment are provided as **Supplement to Exhibit No. 19(f)**.
- December 12, 2022: Bowman Wind re-sent its December 1, 2022 e-mail and attachment to NDGFD. A copy of the e-mail is provided as **Supplement to Exhibit No. 19(g)**.

- December 13–14, 2022: NDGFD and Bowman Wind exchanged e-mails regarding the meeting summary and Bowman Wind's plans to address NDGFD's recommendations #1 and #3. Copies of the e-mails are provided as **Supplement to Exhibit No. 19(h)**.

In summary, Bowman Wind provided responses to NDGFD's recommendations #2 and #4 in an e-mail to NDGFD on October 18, 2022, noting it understood those recommendations were addressed, and those recommendations were not discussed in detail further. With respect to the NDGFD's recommendations #1 and #3, the following resolutions were identified in coordination with NDGFD:

1. *All proposed turbines be removed from within greater sage-grouse PCA and at least 4 miles from known sage-grouse leks.*

Note: NDGFD provided information via November 21, 2022 email detailing that lek identification B6 was the previously active greater sage-grouse lek and turbines 45, 46, 48, 71, 73, and 41 occurred within a 4 mile buffer of the lek. This greater sage-grouse lek was last occupied in 2021.

Discussion: Discussion between both parties centered around the potential for impacts to occur to the remaining population of greater sage-grouse that has occurred within the 4 mile buffer of lek B6. It was acknowledged that the project had taken NDGFD input into consideration and reduced potential impacts greatly by shifting the project area to its current location away from more suitable intact native sage-grouse habitat to the south and closer to the edge of the species range. However, NDGFD noted its main concern was with the two turbines (i.e., 71 and 73) sited approximately two miles from lek B6. NDGFD acknowledge these two turbines were sited in cultivated areas but are in close proximity to important greater sage-grouse connectivity habitat. In addition, the NDGFD acknowledged the other four turbines were sited near the 4-mile lek buffer mark and at the edge of the species range.

Resolution: NDGFD's recommendation remains to site turbines outside of a 4 mile lek buffer from active greater sage-grouse leks and outside of PCAs, as that is the current guidance in its 2014 Greater Sage-Grouse Conservation Plan. Based on the overall discussion, it was agreed that Bowman Wind would remove turbines 71 and 73 from the proposed layout to avoid potential impacts to habitat connectivity.

3. *In the absence of two years pre-construction sharp-tailed grouse surveys, all turbines should be sited off unbroken grasslands to avoid disturbance to any leks which may be present.*

Note: Bowman Wind provided that turbines 2, 6a, 42a, 25 and S6 were sited on unbroken grasslands.

Discussion: Both parties discussed the previous lek surveys that were undertaken and the NDGFD miscommunication that had occurred during previous agency coordination. Given the seasonal and temporal variation in sharp-tailed grouse lekking activity and Project's development timeline, discussion occurred on ways to minimize impacts to individual sharp-tailed grouse attending leks if they occurred in close proximity to these identified turbines.

Resolution: Bowman Wind will avoid all ground disturbing construction activities at turbine locations 2, 6a, 42a, 25, and S6 between March 15 and July 15.

See Supplement to Exhibit No. 19(f).

The updated Project layout reflecting the removal of turbines 71 and 73 is provided in Late-Filed Exhibit Nos. 42, 42(a), and 42(b). As Bowman Wind outlined in its December 14, 2022 e-mail to NDGFD, the above commitments, along with Bowman Wind's prior siting efforts, have minimized the Project's potential wildlife impacts:

We appreciate NDGF[D]'s comments on and acknowledgment of the measures Bowman Wind has taken to minimize potential wildlife impacts. Throughout the development process, Bowman Wind implemented numerous layout revisions to incorporate N[D]GFD's recommendations specific to potential impacts to Species of Conservation Concern. As discussed at the November 22, 2022 meeting, with the assistance of Chad LeBeau and the WEST team, Bowman Wind sited turbines to minimize potential impacts to those species, including sharp-tailed grouse. We acknowledge your recommendations regarding voluntary offsets for potential impacts to habitat of Species of Concern. As set forth in the BBCS, Bowman Wind has voluntarily committed to offset potential habitat impacts using the Shaffer – Loesch model.

See Supplement to Exhibit No. 19(h).

From: Scott Jansen <scott.jansen@apexcleanenergy.com>
Sent: Thursday, October 13, 2022 5:16 PM
To: ekmueller@nd.gov
Cc: Ryan Henning; Sean Stocker
Subject: Correspondence from Bowman Wind
Attachments: October 13, 2022 to Elisha.pdf; 103-010.pdf;
REVISED_Bowman_Project_Boundary_and_Turbine_Shapefiles_20221003.zip

Good Afternoon Elisha,

Please see the attached letter with questions from Bowman Wind with supporting information attached. Our team is available to chat at your convenience with any follow up questions you may have.

Best Regards,

Scott

Scott Jansen
Director of Development

Apex Clean Energy, Inc.
8665 Hudson Boulevard North, Suite 200, Lake Elmo, MN 55042
Cell: 715-432-3927
scott.jansen@apexcleanenergy.com | www.apexcleanenergy.com



Safety • Integrity • Entrepreneurship • Sustainability • Professionalism

*This transmittal may be privileged or confidential. If you are not the intended recipient, please immediately notify us by email and do not copy or re-transmit.
Not printing this email saves energy and conserves resources.*



8665 Hudson Boulevard N.
Suite 200
Lake Elmo, MN 55042
apexcleanenergy.com

October 13, 2022

Hi Elisha,

My name is Scott Jansen, and I am a Director of Development with Apex Clean Energy and the Bowman Wind Project. With Ryan Henning currently out of the office, I am reaching out on behalf of Bowman Wind to request the following information from the NDGFD:

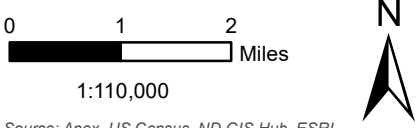
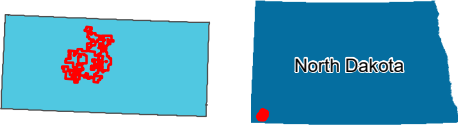
- Please provide the location and status (inactive, occupied, active) of all greater sage-grouse leks documented within the last five (5) years (2017-2022) within 4 miles of turbine locations as identified on the attached layout and provided in included shapefiles.
- Please provide the shape files for the Priority Conservation Areas (PCAs) that are demarcated in the NDGFD 2014 Management Plan and Conservation Strategies for Greater Sage-Grouse in North Dakota (2014 Plan; see Figure 8 in the 2014 Plan).
- Please identify the six turbines by turbine number from the attached turbine layout, within four miles of an active greater-sage grouse lek referenced on page 4 of your July 22, 2021 letter to the North Dakota Public Service Commission (PSC) regarding the Bowman Wind Project.
- Please identify the two turbines by turbine number from the attached layout within a Priority Conservation Area (PCA) referenced on page 4 of your July 22, 2021 letter to the PSC regarding the Bowman Wind Project.
- Please confirm the definition of a Priority Conservation Area (PCA) within the 2014 Plan is accurately described as follows:

The PCA is a spatial layer that combined areas with predicted high nest site selection probability (i.e., nesting potential) with areas of low oil and gas well density. Or stated another way, the PCA was defined as areas with high nesting potential (less proportion of agriculture and higher proportion of grass cover and sagebrush) and low oil and gas well density, specifically <1.5 wells per square mile.

Bowman Wind looks forward to NDGFD's response to these requests.

Respectfully,

Scott Jansen
Director of Development



- ▲ Proposed Turbine
- Non-Participant (within one mile of Project Area)
- Participant (within one mile of Project Area)
- Access Road
- Underground Collection Line
- Existing Substation
- ✕ Cemetery
- Existing Transmission Line
- Sound Level Isoline - 45dBA
- Project Substation
- O&M Facility
- Laydown Yard
- Project Boundary
- Study Area
- Setback
- Shooting Range
- Microwave Beam Path
- Participant
- City/Township
- Section Boundary

*Turbines Not to Scale

Figure 5
Constraints Map
Bowman Wind Project
Bowman County, North Dakota



For Environmental Review Purposes Only

Supplement to Exhibit No. 19(a)

From: Scott Jansen <scott.jansen@apexcleanenergy.com>
Sent: Wednesday, October 19, 2022 9:15 AM
To: Mueller, Elisha K.
Cc: Ryan Henning; Sean Stocker
Subject: RE: Correspondence from Bowman Wind
Attachments: Bowman_Project_Boundary.shp; Bowman_Project_Boundary.shp.xml;
Bowman_Project_Boundary.shx; Bowman_Turbines.cpg; Bowman_Turbines.dbf;
Bowman_Turbines.prj; Bowman_Turbines.sbn; Bowman_Turbines.sbx;
Bowman_Turbines.shp; Bowman_Turbines.shp.xml; Bowman_Turbines.shx;
Bowman_Project_Boundary.cpg; Bowman_Project_Boundary.dbf;
Bowman_Project_Boundary.prj; Bowman_Project_Boundary.sbn;
Bowman_Project_Boundary.sbx

Hi Elisha,

Please see the attached unzipped files and excuse the number of attachments. Looking forward to hearing back from you soon.

Scott

From: Mueller, Elisha K. <ekmueller@nd.gov>
Sent: Monday, October 17, 2022 12:05 PM
To: Scott Jansen <scott.jansen@apexcleanenergy.com>
Cc: Ryan Henning <ryan.henning@apexcleanenergy.com>; Sean Stocker <sean.stocker@apexcleanenergy.com>
Subject: RE: Correspondence from Bowman Wind

Hi Scott,

Because of our security wall, we are unable to receive any zipped files. You can either send them unzipped or rename the file from .zip to .piz and send. We should be able to receive it that way.

I will work with our upland game biologist and other staff to get the information requested to you. We should be able to do so within 30 days.

Elisha

From: Scott Jansen <scott.jansen@apexcleanenergy.com>
Sent: Thursday, October 13, 2022 5:20 PM
To: Mueller, Elisha K. <ekmueller@nd.gov>
Cc: Ryan Henning <ryan.henning@apexcleanenergy.com>; Sean Stocker <sean.stocker@apexcleanenergy.com>
Subject: RE: Correspondence from Bowman Wind

***** **CAUTION:** This email originated from an outside source. Do not click links or open attachments unless you know they are safe. *****

Hi Elisha,

Supplement to Exhibit No. 19(b)

Following up on the email that I sent to you a short time ago. It seems that your filters will not allow a .zip file with shapefiles to be received on your end. If you have a solution to this, please let me know and we can share the best way you see fit.

I'm re-attaching the letter and pdf that was also included with the previous email.

Thanks,

Scott

From: Scott Jansen <scott.jansen@apexcleanenergy.com>
Sent: Tuesday, October 18, 2022 9:50 AM
To: Mueller, Elisha K.
Cc: Ryan Henning; Sean Stocker
Subject: RE: Correspondence from Bowman Wind

Thanks for the note Elisha. I've sent a new request to our GIS team to share this in a new format. As soon as I get it, I'll share.

Scott

From: Mueller, Elisha K. <ekmueller@nd.gov>
Sent: Saturday, November 5, 2022 8:10 PM
To: Ryan Henning <ryan.henning@apexcleanenergy.com>; Scott Jansen <scott.jansen@apexcleanenergy.com>
Cc: Sean Stocker <sean.stocker@apexcleanenergy.com>; Kolar, Jesse L. <jlkolar@nd.gov>; Link, Greg W. <glink@nd.gov>
Subject: Re: Correspondence from Bowman Wind

10am will work. I will go ahead and get a conference room reserved at NDGFD. Let me know if you'd also like a Teams call setup as well for anyone unable to make it in person.

Elisha

From: Ryan Henning <ryan.henning@apexcleanenergy.com>
Sent: Friday, November 4, 2022 4:40 PM
To: Mueller, Elisha K. <ekmueller@nd.gov>; Scott Jansen <scott.jansen@apexcleanenergy.com>
Cc: Sean Stocker <sean.stocker@apexcleanenergy.com>; Kolar, Jesse L. <jlkolar@nd.gov>; Link, Greg W. <glink@nd.gov>
Subject: RE: Correspondence from Bowman Wind

***** **CAUTION:** This email originated from an outside source. Do not click links or open attachments unless you know they are safe. *****

Thanks Elisha. Let's plan to do an in person meeting on the morning of November 22nd. Does 10AM Central work and can we schedule that meeting at the NDGF headquarters?

Regards,

-Ryan

RYAN HENNING
Apex Clean Energy, Inc.

From: Mueller, Elisha K. <ekmueller@nd.gov>
Sent: Friday, November 4, 2022 10:22 AM
To: Ryan Henning <ryan.henning@apexcleanenergy.com>; Scott Jansen <scott.jansen@apexcleanenergy.com>
Cc: Sean Stocker <sean.stocker@apexcleanenergy.com>; Kolar, Jesse L. <jlkolar@nd.gov>; Link, Greg W. <glink@nd.gov>
Subject: RE: Correspondence from Bowman Wind

Hi Ryan,

We would be available the afternoon of the 21st – 2:00-5:00 or anytime on the 22nd. Let me know what works for your team and if you would like me to set up a Teams call.

Elisha

From: Ryan Henning <ryan.henning@apexcleanenergy.com>
Sent: Tuesday, November 1, 2022 5:40 PM
To: Mueller, Elisha K. <ekmueller@nd.gov>; Scott Jansen <scott.jansen@apexcleanenergy.com>
Cc: Sean Stocker <sean.stocker@apexcleanenergy.com>; Kolar, Jesse L. <jlkolar@nd.gov>
Subject: RE: Correspondence from Bowman Wind

***** **CAUTION:** This email originated from an outside source. Do not click links or open attachments unless you know they are safe. *****

Thanks for the reply Elisha. Let's definitely plan to meet during that timeframe. Please let us know some time slots that work for you and Jesse. We can decide if it is best to meet in person or via zoom/teams.

Talk to you soon.

-Ryan

RYAN HENNING
Apex Clean Energy, Inc.

From: Mueller, Elisha K. <ekmueller@nd.gov>
Sent: Tuesday, November 1, 2022 8:22 AM
To: Scott Jansen <scott.jansen@apexcleanenergy.com>
Cc: Ryan Henning <ryan.henning@apexcleanenergy.com>; Sean Stocker <sean.stocker@apexcleanenergy.com>; Kolar, Jesse L. <jlkolar@nd.gov>
Subject: RE: Correspondence from Bowman Wind

Hi Scott,

I was able to open the files, so we are all set there. Our upland game biologist only just returned from leave so we are working through your data request now. I will unfortunately also be out through the 15th for a work conference but am open Nov. 21-24.

Elisha

From: Scott Jansen <scott.jansen@apexcleanenergy.com>
Sent: Monday, October 31, 2022 4:15 PM
To: Mueller, Elisha K. <ekmueller@nd.gov>

Cc: Ryan Henning <ryan.henning@apexcleanenergy.com>; Sean Stocker <sean.stocker@apexcleanenergy.com>

Subject: RE: Correspondence from Bowman Wind

***** **CAUTION:** This email originated from an outside source. Do not click links or open attachments unless you know they are safe. *****

Hi Elisha,

Happy Halloween. Ryan from our team is back and able to continue discussing our letter from the 13th. I'm hoping that you were able to open the unzipped files that I shared on the 17th, if not, please let me know.

When would be a good time to catch up and discuss the questions outlined by the Bowman Wind team?

Thanks,

Scott

From: Ryan Henning <ryan.henning@apexcleanenergy.com>

Supplement to Exhibit No. 19(d)

Sent: Friday, November 18, 2022 8:57 AM

To: Mueller, Elisha K. <ekmueller@nd.gov>; Scott Jansen <scott.jansen@apexcleanenergy.com>

Cc: Sean Stocker <sean.stocker@apexcleanenergy.com>; Kolar, Jesse L. <jlkolar@nd.gov>; Link, Greg W. <glink@nd.gov>

Subject: RE: Correspondence from Bowman Wind

Hi Elisha. In advance of our meeting next week, we plan to discuss items #1 and #3 as detailed in the NDGF's July 22, 2021 letter to the NDPSC (snip below for convenience). Bowman Wind considers NDGF recommendations #2 and #4 addressed. See additional detail below.

As a result, the Department suggests that Apex commit to the following recommendations:

1. All proposed turbines be removed from within the Greater Sage-Grouse PCA and at least 4 miles from known Sage-Grouse leks.
2. If voluntary offsets are pursued, the primary strategy should be to re-create grasslands on broken land (e.g. cropland) rather than preserve existing grasslands.
3. In the absence of two years pre-construction sharp-tailed grouse surveys, all turbines should be sited off unbroken grasslands to avoid disturbance to any leks which may be present.
4. Acknowledge that PLOTS tracts agreements cannot be altered without landowner and Department consent.

With regard to NDGF recommendation #2, pursuant to NDCC Sections 49-22-08(6) and 49-22-09.2, a Project does not have to enact mitigation. Therefore, any offsets are purely voluntary and at the behest of the Applicant, Bowman Wind. As detailed in the Bird and Bat Conservation Strategy, Bowman Wind plans to acquire voluntary native grassland conservation agreements for the modeled output acreage for the operational life of the project consistent with the guidance in the 2019 Shaffer et al. paper.

With regard to the NDGF recommendation #4, PLOTS tract agreements are a signed legal agreement between the NDGF and the landowner. As such, Bowman Wind has no interface with any signed agreement(s) and offers no consent or other decree.

To be better prepared for the discussions with regard to NDGF recommendations #1 and #3, Bowman Wind reiterates its request sent October 13, 2022 for the following information in advance of the 11/22/2022 meeting:

1. Please provide the location and status (inactive, occupied, active) of all greater sage-grouse leks documented within the last five (5) years (2017-2022), within 4 miles of turbine locations (i.e., from the October 13, 2022 submitted turbine layout and corresponding shape files).
2. Please provide the shape files for the Priority Conservation Areas (PCAs) that are demarcated in the NDGFD 2014 Management Plan and Conservation Strategies for Greater Sage-Grouse in North Dakota (2014 Plan; see Figure 8 in the 2014 Plan).
3. Please identify the six turbines by turbine number (i.e., from the October 13, 2022 submitted turbine layout and corresponding shape files), within four miles of an active greater-sage grouse lek referenced on page 4 of the NDGF July 22, 2021 letter to the North Dakota Public Service Commission (PSC) regarding the Bowman Wind Project.
4. Please identify the two turbines by turbine number (i.e., from the October 13, 2022 submitted turbine layout and corresponding shape files) within a Priority Conservation Area (PCA) referenced on page 4 of the NDGF July 22, 2021 letter to the PSC regarding the Bowman Wind Project.

Thanks and we look forward to closing out these two outstanding issues at Bowman Wind.

Regards,

-Ryan

From: Ryan Henning <ryan.henning@apexcleanenergy.com>
Sent: Monday, November 21, 2022 2:23 PM
To: Scott Jansen; Mueller, Elisha K.
Cc: Sean Stocker; Kolar, Jesse L.; Link, Greg W.
Subject: RE: Correspondence from Bowman Wind

Hi Elisha. Chad LeBeau from WEST will also be attending. Have you been able to compile the information that has been requested?

-Ryan

RYAN HENNING
Apex Clean Energy, Inc.

From: Scott Jansen <scott.jansen@apexcleanenergy.com>
Sent: Monday, November 21, 2022 11:41 AM
To: Ryan Henning <ryan.henning@apexcleanenergy.com>; Mueller, Elisha K. <ekmueller@nd.gov>
Cc: Sean Stocker <sean.stocker@apexcleanenergy.com>; Kolar, Jesse L. <jlkolar@nd.gov>; Link, Greg W. <glink@nd.gov>
Subject: RE: Correspondence from Bowman Wind

Hi Elisha,

One more thing. Is it possible to share a dial-in number so that Mollie Smith from Fredrickson and Byron listen in to the conversation?

Scott

From: Scott Jansen
Sent: Monday, November 21, 2022 12:39 PM
To: Ryan Henning <ryan.henning@apexcleanenergy.com>; Mueller, Elisha K. <ekmueller@nd.gov>
Cc: Sean Stocker <sean.stocker@apexcleanenergy.com>; Kolar, Jesse L. <jlkolar@nd.gov>; Link, Greg W. <glink@nd.gov>
Subject: RE: Correspondence from Bowman Wind

Hello all,

I'm sending a quick note to let you know that in addition to the Apex team, Adam Renfandt and Brian Johnson from the North Dakota PSC will also be in attendance to listen in.

Looking forward to meeting in person tomorrow,

Scott

Scott Jansen
Director of Project Development

Apex Clean Energy, Inc.
8665 Hudson Boulevard North, Suite 200, Lake Elmo, MN 55042
Cell: 715-432-3927
scott.jansen@apexcleanenergy.com | www.apexcleanenergy.com



Safety • Integrity • Entrepreneurship • Sustainability • Professionalism

This transmittal may be privileged or confidential. If you are not the intended recipient, please immediately notify us by email and do not copy or re-transmit.

Not printing this email saves energy and conserves resources.

From: Mueller, Elisha K. <ekmueller@nd.gov>
Sent: Monday, November 21, 2022 2:23 PM
To: Scott Jansen; Ryan Henning
Cc: Sean Stocker; Kolar, Jesse L.; Link, Greg W.
Subject: RE: Correspondence from Bowman Wind
Attachments: Apex_11_2022.pdf; 5_YR_SG_Lek_Status.lpk; SageGrouse_Lands_PCA.sbx; SageGrouse_Lands_PCA.shp; SageGrouse_Lands_PCA.shp.GNFEKMUELLER.2944.15640.sr.lock; SageGrouse_Lands_PCA.shp.xml; SageGrouse_Lands_PCA.shx; SageGrouse_Lands_PCA.cpg; SageGrouse_Lands_PCA.dbf; SageGrouse_Lands_PCA.prj; SageGrouse_Lands_PCA.sbn

Hi Scott,

Apologies for the delay, Jesse and myself have had conflicting schedules being out of the office and have had little time to connect and address your questions. I know this is a short turn around before our meeting (again I apologize), but we have the conference room reserved for 2 hours tomorrow and are happy to stay beyond that if there are still questions/concerns that need to be addressed.

Question 1: The attached map shows Lek B6 and the turbines that fall within the buffer. The spatial data is also attached.

Question 2: PCA spatial data is attached.

Question 3: Turbines 45, 46, 48, 71, 73, and 41 all fall within 4 miles of Lek B6. This lek was last occupied in 2021.

Question 4: Turbines 41 and 45 both fall within the Priority Conservation Area (PCA).

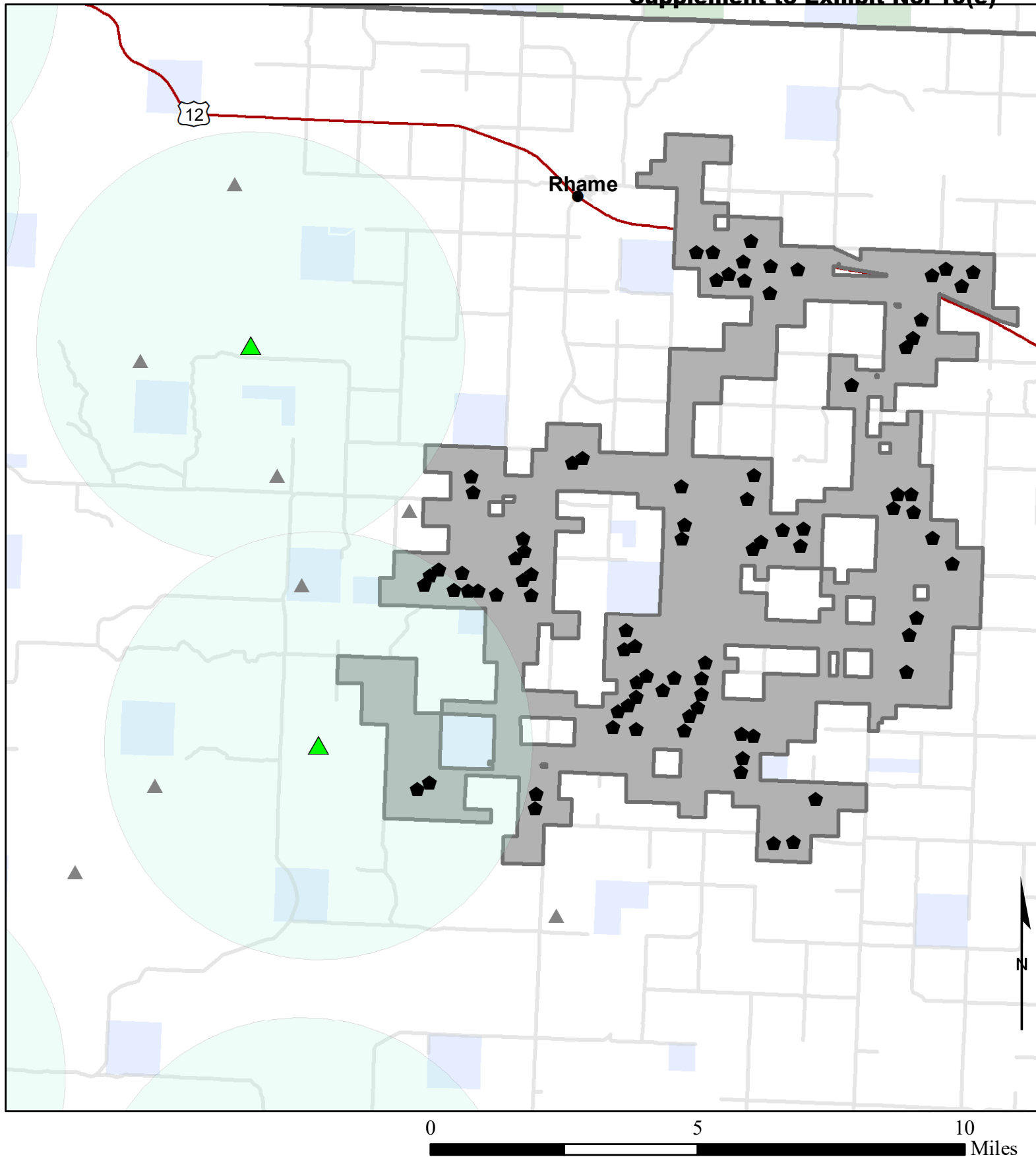
Finally, here is the Teams information for anyone who is unable to attend in person:

Microsoft Teams meeting

Join on your computer, mobile app or room device

[Click here to join the meeting](#)

Elisha



SG Lek_5YR_Status

- ▲ Occupied
- ▲ Unoccupied

- Bowman_Project_Boundary
- 2022_5_yr_buffer
- Bowman_Turbines

Map of greater sage-grouse overlap with proposed wind farm in Bowman County, North Dakota. Shown are leks occupied in the last 5 years and last 10 years and the Sage-grouse primary nesting range.

NDGF 11/01/2022

From: Ryan Henning <ryan.henning@apexcleanenergy.com>
Sent: Thursday, December 1, 2022 8:54 AM
To: Link, Greg W.; Mueller, Elisha K.
Cc: Sean Stocker; Scott Jansen; Chad LeBeau
Subject: November 22, 2022 Meeting Summary
Attachments: Bowman Wind NDGFD Meeting Summary_November 22 2022.docx

Hi Greg and Elisha,

Apologies for the delay as I have been traveling, but please find attached the November 22, 2022 draft meeting summary. Please either make suggested edits directly into the document using track changes or we can schedule a call to discuss further.

Thanks again for your time last week.

Regards,

-Ryan

RYAN HENNING
Vice President - Environmental

Apex Clean Energy
120 Garrett Street, Suite 700, Charlottesville, VA 22902
cell: 303-807-2429 | fax: 434-220-3712
ryan.henning@apexcleanenergy.com | www.apexcleanenergy.com



Safety • Integrity • Entrepreneurship • Sustainability • Professionalism

This transmittal may be privileged or confidential. If you are not the intended recipient, please immediately notify us by email and do not copy or re-transmit.

Not printing this email saves energy and conserves resources.

Bowman Wind NDGFD Meeting November 22, 2022

Attendees:

Greg Link NDGFD
Elisha Mueller NDGFD
Jesse Kolar NDGFD
Brian Johnson NDPSC
Ryan Henning Bowman Wind
Scott Jansen Bowman Wind
Sean Stocker Bowman Wind
Chad LeBeau Western EcoSystems Technology
Mollie Smith Fredrikson & Byron

Meeting Summary

Scott Jansen provided a permitting summary recap for Bowman Wind.

- NDPSC Certificate of Site Compatibility hearing conducted in August 2021. NDPSC conditioned their final permit application review upon issuance of a Conditional Use Permit from Bowman County.
- Bowman County Planning and Zoning and Board of County Commissioners hearing occurred in July 2022 and a Conditional Use Permit was issued.
- NDPSC discussed the Bowman Wind Certificate of Site Compatibility permit application in July and October. During the October discussion, the NDPSC commissioners requested that Bowman Wind reengage with the NDGFD to discuss the recommendations put forth in the July 21, 2021 agency communication letter.
- Bowman Wind sent a letter to the NDGFD on October 13, 2022 to request additional information specific to the NDGFD recommendations.
- The NDGFD provided an email communication on November 21, 2022 with the requested information.
- In person meeting between Bowman Wind and NDGFD occurred on November 22, 2022.

Two recommendations from the NDGFD July 21, 2021 letter that remained unresolved were discussed in more detail:

1. *All proposed turbines be removed from within greater sage-grouse PCA and at least 4 miles from known sage-grouse leks.*

Note: NDGFD provided information via November 21, 2022 email detailing that lek identification B6 was the previously active greater sage-grouse lek and turbines 45, 46, 48, 71, 73, and 41 occurred within a 4 mile buffer of the lek. This greater sage-grouse lek was last occupied in 2021.

Discussion: Discussion between both parties centered around the potential for impacts to occur to the remaining population of greater sage-grouse that has occurred within the 4 mile buffer of lek B6. It was acknowledged that the project had taken NDGFD input into consideration and

reduced potential impacts greatly by shifting the project area to its current location away from more suitable intact native sage-grouse habitat to the south and closer to the edge of the species range. However, NDGFD noted its main concern was with the two turbines (i.e., 71 and 73) sited approximately two miles from lek B6. NDGFD acknowledge these two turbines were sited in cultivated areas but are in close proximity to important greater sage-grouse connectivity habitat. In addition, the NDGFD acknowledged the other four turbines were sited near the 4-mile lek buffer mark and at the edge of the species range.

Resolution: NDGFD's recommendation remains to site turbines outside of a 4 mile lek buffer from active greater sage-grouse leks and outside of PCAs, as that is the current guidance in its 2014 Greater Sage-Grouse Conservation Plan. Based on the overall discussion, it was agreed that Bowman Wind would remove turbines 71 and 73 from the proposed layout to avoid potential impacts to habitat connectivity.

3. *In the absence of two years pre-construction sharp-tailed grouse surveys, all turbines should be sited off unbroken grasslands to avoid disturbance to any leks which may be present.*

Note: Bowman Wind provided that turbines 2, 6a, 42a, 25 and S6 were sited on unbroken grasslands.

Discussion: Both parties discussed the previous lek surveys that were undertaken and the NDGFD miscommunication that had occurred during previous agency coordination. Given the seasonal and temporal variation in sharp-tailed grouse lekking activity and Project's development timeline, discussion occurred on ways to minimize impacts to individual sharp-tailed grouse attending leks if they occurred in close proximity to these identified turbines.

Resolution: Bowman Wind will avoid all ground disturbing construction activities at turbine locations 2, 6a, 42a, 25, and S6 between March 15 and July 15.

From: Ryan Henning <ryan.henning@apexcleanenergy.com>
Sent: Monday, December 12, 2022 1:23 PM
To: Link, Greg W.; Mueller, Elisha K.
Cc: Sean Stocker; Scott Jansen; Chad LeBeau
Subject: FW: November 22, 2022 Meeting Summary
Attachments: Bowman Wind NDGFD Meeting Summary_November 22 2022.docx

Hi Greg and Elisha. I am refreshing this email in your inbox. We would like to get a communication back to the NDPSC this week, if possible. Therefore, can you please review the meeting notes and let us know if you have any suggested edits or comments.

Thanks,

-Ryan

RYAN HENNING
Apex Clean Energy, Inc.

From: Ryan Henning
Sent: Thursday, December 1, 2022 7:54 AM
To: Link, Greg W. <glink@nd.gov>; Mueller, Elisha K. <ekmueller@nd.gov>
Cc: Sean Stocker <sean.stocker@apexcleanenergy.com>; Scott Jansen <scott.jansen@apexcleanenergy.com>; Chad LeBeau <cwlebeau@west-inc.com>
Subject: November 22, 2022 Meeting Summary

Hi Greg and Elisha,

Apologies for the delay as I have been traveling, but please find attached the November 22, 2022 draft meeting summary. Please either make suggested edits directly into the document using track changes or we can schedule a call to discuss further.

Thanks again for your time last week.

Regards,

-Ryan

RYAN HENNING
Vice President - Environmental

Apex Clean Energy
120 Garrett Street, Suite 700, Charlottesville, VA 22902
cell: 303-807-2429 | fax: 434-220-3712
ryan.henning@apexcleanenergy.com | www.apexcleanenergy.com



Safety • Integrity • Entrepreneurship • Sustainability • Professionalism

This transmittal may be privileged or confidential. If you are not the intended recipient, please immediately notify us by email and do not copy or re-transmit.

Not printing this email saves energy and conserves resources.

Bowman Wind NDGFD Meeting November 22, 2022

Attendees:

Greg Link NDGFD
Elisha Mueller NDGFD
Jesse Kolar NDGFD
Brian Johnson NDPSC
Ryan Henning Bowman Wind
Scott Jansen Bowman Wind
Sean Stocker Bowman Wind
Chad LeBeau Western EcoSystems Technology
Mollie Smith Fredrikson & Byron

Meeting Summary

Scott Jansen provided a permitting summary recap for Bowman Wind.

- NDPSC Certificate of Site Compatibility hearing conducted in August 2021. NDPSC conditioned their final permit application review upon issuance of a Conditional Use Permit from Bowman County.
- Bowman County Planning and Zoning and Board of County Commissioners hearing occurred in July 2022 and a Conditional Use Permit was issued.
- NDPSC discussed the Bowman Wind Certificate of Site Compatibility permit application in July and October. During the October discussion, the NDPSC commissioners requested that Bowman Wind reengage with the NDGFD to discuss the recommendations put forth in the July 21, 2021 agency communication letter.
- Bowman Wind sent a letter to the NDGFD on October 13, 2022 to request additional information specific to the NDGFD recommendations.
- The NDGFD provided an email communication on November 21, 2022 with the requested information.
- In person meeting between Bowman Wind and NDGFD occurred on November 22, 2022.

Two recommendations from the NDGFD July 21, 2021 letter that remained unresolved were discussed in more detail:

1. *All proposed turbines be removed from within greater sage-grouse PCA and at least 4 miles from known sage-grouse leks.*

Note: NDGFD provided information via November 21, 2022 email detailing that lek identification B6 was the previously active greater sage-grouse lek and turbines 45, 46, 48, 71, 73, and 41 occurred within a 4 mile buffer of the lek. This greater sage-grouse lek was last occupied in 2021.

Discussion: Discussion between both parties centered around the potential for impacts to occur to the remaining population of greater sage-grouse that has occurred within the 4 mile buffer of lek B6. It was acknowledged that the project had taken NDGFD input into consideration and

reduced potential impacts greatly by shifting the project area to its current location away from more suitable intact native sage-grouse habitat to the south and closer to the edge of the species range. However, NDGFD noted its main concern was with the two turbines (i.e., 71 and 73) sited approximately two miles from lek B6. NDGFD acknowledge these two turbines were sited in cultivated areas but are in close proximity to important greater sage-grouse connectivity habitat. In addition, the NDGFD acknowledged the other four turbines were sited near the 4-mile lek buffer mark and at the edge of the species range.

Resolution: NDGFD's recommendation remains to site turbines outside of a 4 mile lek buffer from active greater sage-grouse leks and outside of PCAs, as that is the current guidance in its 2014 Greater Sage-Grouse Conservation Plan. Based on the overall discussion, it was agreed that Bowman Wind would remove turbines 71 and 73 from the proposed layout to avoid potential impacts to habitat connectivity.

3. *In the absence of two years pre-construction sharp-tailed grouse surveys, all turbines should be sited off unbroken grasslands to avoid disturbance to any leks which may be present.*

Note: Bowman Wind provided that turbines 2, 6a, 42a, 25 and S6 were sited on unbroken grasslands.

Discussion: Both parties discussed the previous lek surveys that were undertaken and the NDGFD miscommunication that had occurred during previous agency coordination. Given the seasonal and temporal variation in sharp-tailed grouse lekking activity and Project's development timeline, discussion occurred on ways to minimize impacts to individual sharp-tailed grouse attending leks if they occurred in close proximity to these identified turbines.

Resolution: Bowman Wind will avoid all ground disturbing construction activities at turbine locations 2, 6a, 42a, 25, and S6 between March 15 and July 15.

From: Ryan Henning <ryan.henning@apexcleanenergy.com>
Sent: Wednesday, December 14, 2022 2:44 PM
To: Mueller, Elisha K.
Cc: Sean Stocker; Scott Jansen; Chad LeBeau; Johnson, Brian L.; Link, Greg W.; Kolar, Jesse L.
Subject: RE: November 22, 2022 Meeting Summary

Thanks, Elisha. We appreciate NDGF's comments on and acknowledgment of the measures Bowman Wind has taken to minimize potential wildlife impacts. Throughout the development process, Bowman Wind implemented numerous layout revisions to incorporate NGFD's recommendations specific to potential impacts to Species of Conservation Concern. As discussed at the November 22, 2022 meeting, with the assistance of Chad LeBeau and the WEST team, Bowman Wind sited turbines to minimize potential impacts to those species, including sharp-tailed grouse. We acknowledge your recommendations regarding voluntary offsets for potential impacts to habitat of Species of Concern. As set forth in the BBCS, Bowman Wind has voluntarily committed to offset potential habitat impacts using the Shaffer – Loesch model.

Thank you for the additional coordination. Bowman Wind will provide the meeting notes and email correspondence to the NDPSC.

Regards,

-Ryan

RYAN HENNING
Apex Clean Energy, Inc.

From: Mueller, Elisha K. <ekmueller@nd.gov>
Sent: Tuesday, December 13, 2022 9:50 AM
To: Ryan Henning <ryan.henning@apexcleanenergy.com>
Cc: Sean Stocker <sean.stocker@apexcleanenergy.com>; Scott Jansen <scott.jansen@apexcleanenergy.com>; Chad LeBeau <cwlebeau@west-inc.com>; Johnson, Brian L. <brljohanson@nd.gov>; Link, Greg W. <glink@nd.gov>; Kolar, Jesse L. <jlkolar@nd.gov>
Subject: RE: November 22, 2022 Meeting Summary

Hi Ryan,

Thank you for meeting with us Nov. 22nd to discuss and address the Game and Fish Department (Department) recommendations we provided in our earlier project assessment letter dated July 22, 2021. We appreciate you providing the summary of our discussion and proposed resolutions.

The Department-believes the project modifications to which APEX has committed are important changes for minimizing impacts to sensitive wildlife species. We are encouraged and commend you for the removal of turbines 71 and 73 to protect an active sage grouse lek only approximately 2 miles away. We also agree that construction activities should be avoided during the proposed window to protect sharp-tailed grouse. However, we would like to reiterate Recommendation 2 from our original letter, which was further stressed at the meeting. Five turbines placed within unbroken grasslands could significantly impact grassland-associated Species of Conservation Concern in those areas, specifically sharp-tailed grouse. It is not only the footprint of a turbine that might impact grouse, but, additionally, a much wider area of potential displacement, as grouse have been shown to avoid turbines up to 2 miles. For our assessment, indicating the habitat lost to grouse must go beyond just the footprint of the turbine; it needs to include all

Supplement to Exhibit No. 19(h)

reduction of wildlife value of the area, including avoidance. Also, voluntarily offsetting these residual impacts using APEX's "acquisition and protection" offset approach, as identified in the BBCS, may be a beneficial conservation action, in general, but it does not address the specific deficit to the grassland resource accrued in the project area and the wildlife inhabiting this area. The Department continues to recommend that voluntary offsets pursued should focus on recreating native grassland habitat in the project area with willing private landowners to offset habitat lost (**285 ha/702 acres per Bowman's impact analysis – see below**), rather than preserving existing habitat in other areas of the state.

Final Layout 059 Grassland Mapping Updated Based on WEST Field Assessment Used for the Avian-impact Offset Method to Estimate Offsets for Displaced Breeding Grassland Birds *{RESULTS IN THIS TABLE INCLUDE 85 TOTAL PRIMARY AND SPARE TURBINE LOCATIONS – >THE FINAL PROJECT LAYOUT WILL TOTAL 74, 2.82 MW TURBINE LOCATIONS}

Parameter	Metric	Units	Source
Impact Distance	300	m	Shaffer and Buhl (2016)
Impact Area	537	ha	Derived from WEST Grassland Assessment
Pre-Impact Density	1.9	pairs/ha	Shaffer and Buhl (2016)
Percent Displacement	53	percent	Shaffer et al. (2019)
Offset Density	1.9	pairs/ha	Equal Value Habitat
Number Pairs in Impact Site	1020	pairs	--
Number Pairs Displaced	540	pairs	--
Offset Area	284	ha	--

Note: This table was replicated from Shaffer et al (2019) Appendix S1, Table S3, Example 2 calculation sheet

Please feel free to reach out if you have any other questions or concerns.

Elisha

Bowman Wind, LLC
Bowman Wind Project
Docket No. PU-21-121

Supplement to Exhibit No. 22 – Prefiled Testimony of Scott Jansen

In his prefiled testimony, Mr. Scott Jansen discussed the status of the interconnection request for the Bowman Wind Project (“Project”) (*see* Exhibit No. 22 at p. 4, ln. 100-104). During the August 24, 2021 public hearing, Mr. Jansen provided an update on the interconnection request, and testified that a Generator Interconnection Agreement (“GIA”) for the Project has not yet been executed.

Subsequent to the public hearing, a GIA was executed for the Project. Therefore, Bowman Wind supplements Mr. Jansen’s prior testimony with the following: On August 24, 2022, Bowman Wind Project, LLC (“Bowman Wind”) entered into a GIA with Southwest Power Pool, Inc. (“SPP”) and Basin Electric Power Cooperative authorizing the Project’s interconnection to the electric grid.

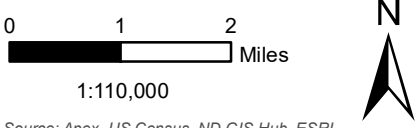
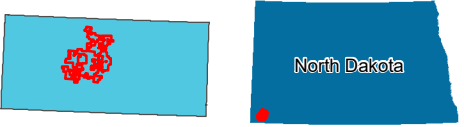
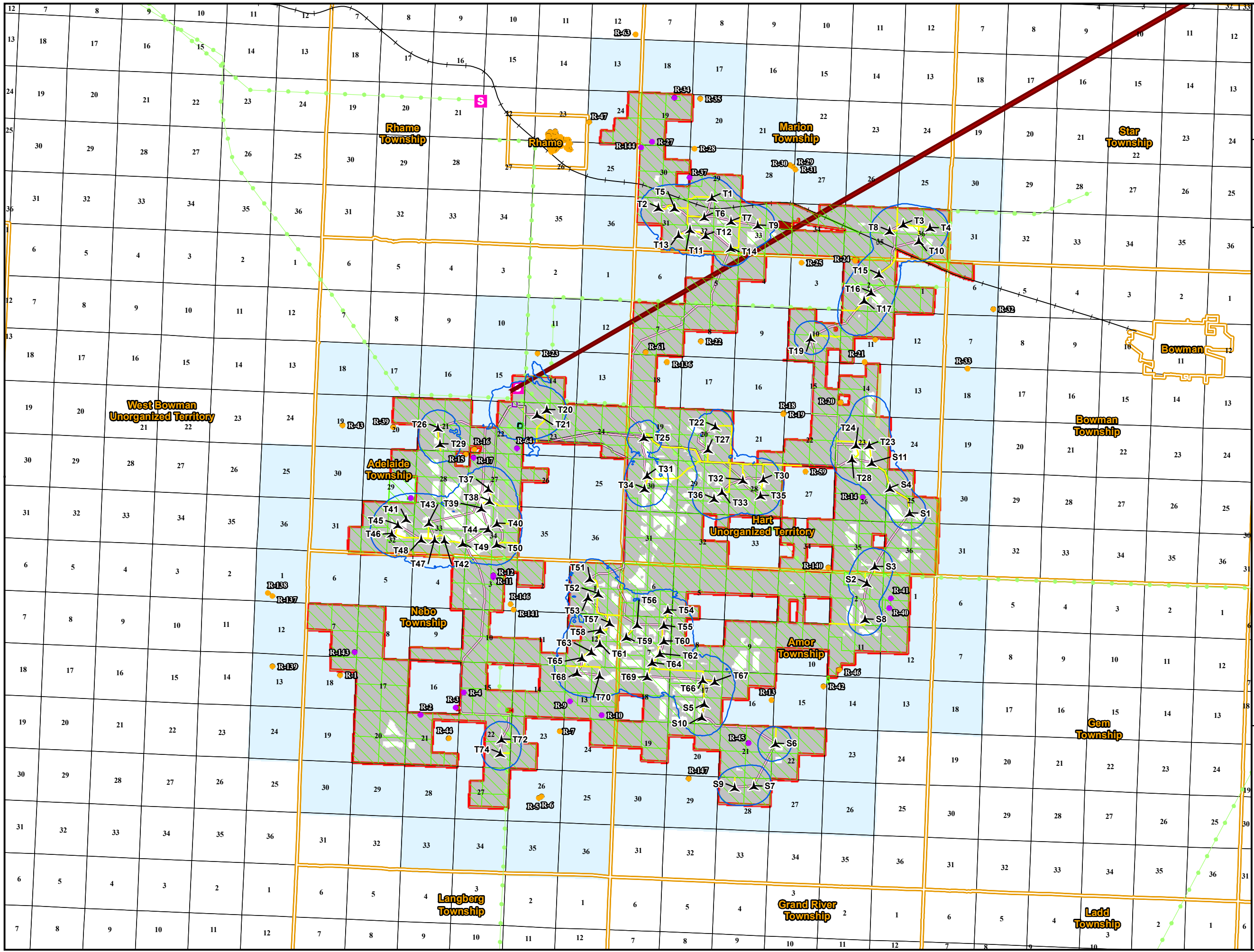
Bowman Wind, LLC
Bowman Wind Project
Docket No. PU-21-121

**Late-Filed Exhibit No. 42 – Update Regarding Current
Project Layout**

Provided herewith as **Late-Filed Exhibit No. 42(a)** is an updated figure showing the current Project layout, reflecting the following updates:

- The Project layout has been updated to remove turbines 71 and 73 (and associated facilities). Turbines 71 and 73 were removed as a result of Bowman Wind's coordination with the North Dakota Game and Fish Department, as discussed in **Supplement to Exhibit No. 19**. The updated Project layout includes 82 potential turbine locations, of which up to 74 will be constructed.
- With removal of turbines 71 and 73 (and associated facilities), the proposed Project layout impacts approximately 88.2 acres of land. However, since this impact calculation is based on all 82 proposed turbine locations, and only up to 74 turbines will be constructed, the actual permanent impacts will be less.

The updates to the Project layout are depicted on the Updated Comparison Figure provided herewith as **Late-Filed Exhibit No. 42(b)**, which compares the previous Project layout (depicted on **Late-Filed Exhibit No. 39(a)**) with the current Project layout.



Data Source: Apex, US Census, ND GIS Hub, ESRI

- ▲ Proposed Turbine
- Non-Participant (within one mile of Project Area)
- Participant (within one mile of Project Area)
- Access Road
- Underground Collection Line
- Existing Substation
- ✕ Cemetery
- Existing Transmission Line
- Sound Level Isoline - 45dBA
- Project Substation
- O&M Facility
- Laydown Yard
- Project Boundary
- Study Area
- Setback
- Shooting Range
- Microwave Beam Path
- Participant
- City/Township
- Section Boundary


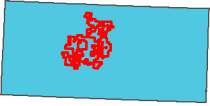
*Turbines Not to Scale

Figure 5
Constraints Map
Bowman Wind Project
Bowman County, North Dakota



For Environmental Review Purposes Only





012

Miles

1:110,000

Data Source: Apex, US Census, ND GIS Hub, ESRI

▲

Proposed Turbine

●

Non-Participant (within one mile of Project Area)

●

Participant (within one mile of Project Area)

—

Access Road

—

Underground Collection Line

S

Existing Substation

+

Cemetery

—

Existing Transmission Line

—

Sound Level Isoline - 45dBA

□

Project Substation

□

O&M Facility

■

Laydown Yard

□

Project Boundary

■

Study Area

■

Setback

■

Shooting Range

■

Microwave Beam Path

■

Participant

□

City/Township

□

Section Boundary

Removed Project Features

▲

Turbine

—

Access Road

—

Underground Collection Line


*Turbines Not to Scale

Figure 5

Constraints Map

Bowman Wind Project

Bowman County, North Dakota



BOWMAN
WIND

For Environmental Review Purposes Only

Late-Filed Exhibit No. 42(b)
Date: 11/21/2022
Source: Y:\GIS\Projects\BOW_Bowman\XDP\Permitting\Site_Permit\Figures_Bowman_Constraints - 20221219_Comparison.mxd