

March 5, 2019

Burke Wind, LLC
700 Universe Boulevard
Juno Beach, FL 33408

North Dakota Game and Fish Department
100 N. Bismarck Expressway
Bismarck, ND 58501

VIA E-MAIL

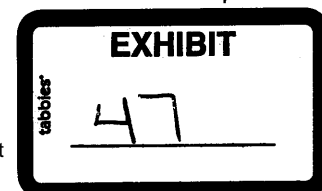
Dear Mr. Dyke:

The purpose of this letter is to follow up on our recent discussion regarding our proposed Burke County Wind Energy Center Project (Project) that we discussed on February 26, 2019. On February 15, 2019, Burke Wind transmitted a voluntary offset package via email to the North Dakota Department of Game and Fish (NDGFD) that outlined our proposed avoidance, minimization, and mitigation efforts along with outlining our proposed voluntary offset package for the Project. During our discussion on February 26, 2019, our consulting team of Atwell, WEST, and AECOM outlined our methods and rationale, including our use of best available science as referenced by the NDGFD and the U.S. Fish and Wildlife Service (USFWS) in recent correspondence. We confirmed that both direct and indirect impacts were considered, discussed methods for addressing impacts to native prairie or grasslands regardless of patch size, and discussed potential mechanisms to implement conservation actions funded by the voluntary offset package. At the end of our discussion, NDGFD requested additional information on our methods for deriving the voluntary offset package and additional detail regarding potential valuation approaches including restoration and reconstruction. Attached to this letter and described below are further clarifications on both issues.

The attachment to this letter describes our proposed voluntary offset approach including total impacts by type (temporary or permanent), breaks out the baseline condition of any native prairie as broken or unbroken regardless of patch size following NDGFD and USFWS recommendations, addresses both direct and indirect impacts, summarizes the total offset acres, and provides a method for equating indirect wetland impacts to duck pairs potentially displaced using best available data. We understand there was a question about whether indirect impacts were addressed after the meeting adjourned, and specifically affirm indirect impacts were indeed addressed as described in the attached memo.

We also further considered the methods for valuing each acre of offset in our calculation. In our memo, we describe an approach using commercial real estate values as a proxy for the cost to offset impacts to one acre regardless of habitat type in Burke County and surrounding areas. We believe this cost is also valid and inclusive of other methods of mitigation such as reconstruction and restoration that do not depend on purchase of land or any change in ownership or private management of land. Our specific

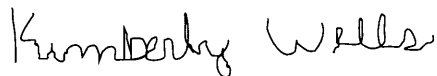
- 106 PU-18-344 Filed 03/08/2019 Pages: 5
Exhibit 47 - Correspondence from Kimberly Wells, NextEra, to ND Game and Fish Department
Burke Wind, LLC
- 66 PU-18-302 Filed 03/08/2019 Pages: 5
Exhibit 47 - Correspondence from Kimberly Wells, NextEra, to ND Game and Fish Department
Burke Wind, LLC



valuation method would over estimate the cost of mitigation for restoration and reconstruction if the estimates provided in the Draft Wildlife Guidelines that have been withdrawn are accurate. As discussed, our two primary criteria for selecting any offset mechanism include 1) options that explicitly include the landowner perspective in the process to keep the land in private ownership and management as long as desired by the landowner and 2) options to retain involvement of the significant conservation expertise that both the NDGFD and USFWS offer as respective state and federal stewards of wildlife and their habitats in North Dakota. Although we have not finalized a particular organization for implementation of the voluntary offset, Burke Wind believes implementation of offsets that satisfy both of our criteria are viable and achievable.

Please review our methods and we will be in touch to schedule another discussion to go through any remaining questions after your team has had time to review. We appreciate the continued dialogue and look forward to the next discussion.

Sincerely,



Kimberly Wells, Ph.D.
Senior Manager, Environmental Services, Mid-Continent Region
NextEra Energy Resources

Cc: Scott Larson, USFWS (Via E-Mail)
Greg Link (NDGFD (Via E-Mail)
Daryl Hart (Burke Wind) (Via E-Mail)
Clay Cameron (Burke Wind) (Via E-Mail)
Clayton Derby (WEST (Via E-Mail)
Lindsey Churchill (AECOM) (Via E-Mail)

Attachment: Burke Offset Memo

Burke Wind, LLC
Burke County Wind Energy Center
Voluntary Offset Plan Methods
5 March 2019

All types of development activities have potential impacts on wildlife and their habitats. Wildlife and habitat impacts can be reduced through avoidance, minimization, and restoration efforts; however, there remain situations where additional offsets or compensatory mitigation may still be appropriate. This document describes the calculation methodology for the Voluntary Offset Plan for the Burke County Wind Energy Center (Project) in Burke County, North Dakota, that is being proposed in addition to the extensive avoidance and minimization efforts already completed at the Project and planned restoration. The proposed offset ratios were developed based on the best available information in various scientific papers and presentations. Other methods of determining voluntary offsets, if any, may be used in the future.

GRASSLANDS

Permanent Impacts to Unbroken Grasslands – Permanent impacts are defined as those areas that were unbroken grassland prior to construction and are placed into graveled, paved, or other regularly maintained surface for life of Project. The Project has 5.78 acres of impact. The proposed offset ratio is 2:1. As applicable, impacts are calculated for turbines, roads, collection substation, and operations and maintenance facilities regardless of patch size.

Temporary Impacts to Unbroken Grasslands – Temporary impacts are defined as those in which an area may be used during construction but are then returned to grasslands for life of Project. The Project has 111.63 acres of impact. The proposed offset ratio is 1:1. As applicable, impacts are calculated for turbines, roads, underground collection, collection substation, and operations and maintenance facilities regardless of patch size.

Indirect Impacts to Unbroken Grasslands – Indirect impacts are defined as those which may result in change in use by species of a piece of ground, but the vegetation and physical features of the ground are not impacted. The proposed offset ratio is 0.55:1 when a direct road or turbine impact is present. Indirect impacts are calculated within 100 meters of roads and 200 meters from turbines, and exclude existing impacts from “hard edges” such as existing roads, cropland, well pads, and farmsteads. Existing impacts are calculated by buffering the hard edges by 100 meters. The Project has 212.96 acres of impact.

Permanent Impacts to Broken Grasslands – The Project has 13.62 acres of impact. The offset ratio is 0.5:1. As applicable, impacts are calculated for turbines, roads, collection substation, and operations and maintenance facilities regardless of patch size.

Temporary and Indirect Impacts to Broken Grasslands – No offsets are proposed.

Table 1. Grassland Impacts, Offset Ratios, and Resulting Offset Acreage (impact acres X offset ratio) for the Project.

Grassland/Impact Type	Impact (acres)	Offset Ratio	Offset Acreage
Unbroken, Permanent	5.78	2.00	11.56
Unbroken, Temporary	111.63	1.00	111.63
Unbroken, Indirect	212.96	0.55	117.13
Broken, Permanent	13.62	0.50	6.81
Broken, Temporary	158.47	0.00	0.00
Broken, Indirect	331.05	0.00	0.00
Grassland Total			247.13

WETLANDS

Permanent Impacts to Wetlands – The Project has 0.54 acres of unavoidable impact to isolated wetlands or prairie potholes that are not under the jurisdiction of the U.S. Army Corps of Engineers. The proposed offset ratio is 1:1.

Indirect Impacts to Wetlands – Indirect impacts to wetlands were calculated by estimating the number of breeding pairs displaced within 0.5 mile of turbines (acres of wetlands X average breeding duck density per acre of wetland X 0.21 displacement rate) (USFWS 2015). Given ducks are heavily regulated and hunted (an estimated 12,115,800 [±4%] harvested in the lower 48 states in 2017 with 426,400 [±21%] harvested in North Dakota) (Raftovich et al. 2018) and remain above the long-term average (USFWS 2018), the issue appears to be unrelated to declining species, but rather a potential decrease in fledged birds in the fall flight for hunting opportunities.

The Project will utilize the estimated displaced breeding pairs and assume none of those individuals successfully breed elsewhere, which is a conservative approach in light of the uncertainty. The estimated breeding pair displacement will be adjusted via application of average clutch size (9), average nest success rate (15%), and a conservatively estimated duckling survival rate (50%) to estimate loss to fledged birds in fall flight (Boyer and Coluccy n.d., Coluccy and Anderson n.d., Ducks Unlimited n.d.). An average hunter success of 14 ducks harvested per hunter was used to determine how many hunters would result in this same level of removing birds from the fall flight (i.e., harvest) (Raftovich et al. 2018). The amount of “harvest” will be offset by Burke Wind contributing an offset payment equal to purchased duck stamps (\$25/stamp) per year for the life of Project.

Breeding waterfowl pair estimates in the region of the Project range between 20 and >100 pairs per square mile (USFWS 2015). Burke Wind used a conservative estimate of 105 duck pairs per square mile. The area within 0.5 mile of Project turbines is 32.23 square miles. Using the median duck pair density value and a 0.21 displacement factor, resulted in an estimated 710.63 pairs displaced (Table 2).

Table 2. Waterfowl Pair Displacement for the Project.

Duck Pairs Per Square Mile	Area (square miles)	Total Duck Pairs	Displacement Factor	Duck Pairs Displaced
105	32.23	3,383.95	0.21	710.63

At an average clutch size of nine eggs, a 15% nest success, and 50% duckling survival, the estimated loss is approximately 480 fledged ducks per year.

The number of ducks lost to hunting opportunity (480) was then divided by the average number of ducks a North Dakota hunter harvests per year (14) (Raftovich et al. 2018). This equates to about 34.3 duck stamps annually.

REFERENCES

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- Raftovich, R. V., S. C. Chandler, and K. K. Fleming. 2018. Migratory bird hunting activity and harvest during the 2016-17 and 2017-18 hunting seasons. U.S. Fish and Wildlife Service, Laurel, Maryland, USA.
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