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To: Oregon Energy Facility Siting Council

From: Duane Kilsdonk, Compliance Officer

Date: October 20, 2020

Subject: Leaning Juniper IIB Wind Power Facility – Annual Monitoring for Wildlife

Monitoring and Mitigation Plan (Condition 87)

Wildlife Monitoring and Mitigation Plan Overview

Leaning Juniper IIA Wind Power Facility is a wind energy generation facility consisting of 74 wind turbines, with a peak generating capacity of 111 megawatts (MW). The facility is in Gilliam County. The Council issued a site certificate for the facility in 2007.

Condition 87 of the site certificate states that, "The certificate shall conduct wildlife monitoring as described in the Wildlife Monitoring and Mitigation Plan (WMMP) that is incorporated in the Final Order on Amendment #2 for LJF as Attachment D and as amended from time to time."

The WMMP requires that the certificate holder implement short- and long-term wildlife monitoring during facility operation. Short-term wildlife monitoring requirements include a 2-year post construction Bird and Bat Fatality Monitoring Program and a Grassland Bird Study; these wildlife monitoring activities were completed in 2012-13. On-going long-term wildlife monitoring requirements include:

- Washington Ground Squirrel Surveys (Every 3-years for operational life of facility; 2014, 2017, 2020, etc.)
- Long-Term Raptor Nesting Surveys (Every 5-years for operational life of facility; 2015, 2020, 2025, etc.)
- Wildlife Monitoring and Reporting System (Ongoing)

Washington Ground Squirrel Surveys

The WMMP establishes that the certificate holder conducts long-term monitoring for areas of previous use by Washington Ground Squirrel (WGS). The most recent long-term survey was completed in 2017, as reported in 2018. In the 2017 Annual Report, the certificate holder reported that WGS activity was detected at two of the ten survey areas. The next WGS survey will be conducted in 2020.

Wildlife Monitoring and Reporting System

Monitoring activities during 2019 for this facility include the ongoing Wildlife Monitoring and Reporting System, a program for responding to and handling avian and bat casualties found by personnel at the site during routine maintenance operations. In 2019, the certificate holder reported that no carcasses were observed within the facility site. The certificate holder is obligated to notify USFWS and ODFW in the event that any federal or state endangered or threatened species are killed or injured onsite.

Public Comments on Wildlife Monitoring Results

Section 5 of the WMMP, Data Reporting, establishes an opportunity for the public to review and comment on monitoring results. Specifically, the WMMP states, "The public will have an opportunity to receive information about monitoring results and to offer comment. Within 30 days after receiving the annual report of monitoring results, the Department will make the report available to the public on its website and will specify a time in which the public may submit comments to the Department."

The Department received the annual monitoring results for the facility on April 30, 2020. In accordance with the terms of the WMMP, the Department provides a copy of the 2019 monitoring results for the Leaning Juniper IIB Wind Power Facility to the Council for review (attached) and posted a copy to the Department's project website at: http://www.oregon.gov/energy/facilities-safety/facilities/Pages/LJB.aspx and has established 60-day timeframe to accept public comments.

Due to COVID and late postings, comments are due **October 20, 2020 at 5:00 p.m.** and may be submitted to Duane Kilsdonk at duane.kilsdonk@oregon.gov

Attachments: Wildlife Monitoring and Mitigation Plan (November 6, 2015) 2019 Wildlife Monitoring Report

Leaning Juniper IIA and IIB Wind Projects: Ongoing Wildlife Monitoring and Mitigation Plan

[NOVEMBER 6, 2015]

This Ongoing Wildlife Monitoring and Mitigation Plan (the Plan) describes wildlife monitoring that the certificate holders shall conduct during operation of the Leaning Juniper IIA and IIB Wind Power Facilities.¹ The ongoing monitoring objectives are to determine whether the facility causes significant fatalities of birds and bats and to determine whether the facility results in a loss of habitat quality.

Following Amendment 2 of the original Leaning Juniper II Wind Power Facility site certificate, the single facility was divided into two separate facilities, with LJIIA and LJIIB each receiving its own site certificate. However, the site certificate holders agreed to share mitigation and environmental responsibilities. Therefore, the requirements for the facility as a whole, including both LJIIA and LJIIB, remain in this Wildlife Monitoring and Mitigation Plan (WMMP) and each individual site certificate holder remains bound by its terms.

Collectively, LJIIA and LJIIB ('the Facilities' or 'LJIIA/B') consists of 117 wind turbines, four non-guyed meteorological (met) towers and other related or supporting facilities as described in the site certificate. The permanent facility components occupy approximately 111 acres, of which up to 52 acres is Category 5 wildlife habitat or better, based on the Oregon Department of Fish and Wildlife (ODFW) standards (OAR 635-415-0025).²

Each certificate holder shall use experienced personnel to implement the ongoing monitoring required under this plan and properly trained personnel to conduct the monitoring, subject to approval by the Oregon Department of Energy (Department) as to professional qualifications. For all components of this plan except the Wildlife Monitoring and Reporting System (WMRS), each certificate holder shall hire an independent third party (not employees of the certificate holder) to perform monitoring tasks.

The Wildlife Monitoring and Mitigation Plan for the Facilities originally included the following components:

1) Fatality monitoring program including: (completed, Downes et al. 2013)

a) Removal trials

b) Searcher efficiency trials

c) Fatality search protocol

d) Statistical analysis

2) Raptor nesting surveys (ongoing)

3) Washington ground squirrel surveys (ongoing)

4) Grassland bird study (completed, Downes and Gritski 2014)

LEANING JUNIPER IIA WIND POWER FACILITY
FINAL ORDER ON AMENDMENT #2— ATTACHMENT D, Amended November 6, 2015

¹ This plan is incorporated by reference in the site certificate for the LJF and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holders.

² A more complete description of the habitat areas affected by the Facilities, LJIIA and LJIIB, is provided in the Final Order on Amendment #1, Section IV.4(b), which expanded the site boundary to include LJIIB.

5) Wildlife Monitoring and Reporting System (ongoing)

Since the original Wildlife Monitoring and Mitigation Plan was adopted on November 20, 2009 (and updated in June 21, 2013), the requirements of (1) and (4) and the initial requirements of (2), (3), (5), and (6) above have been completed, as reflected and described in this Plan. This Plan reflects the ongoing, long-term monitoring and mitigation requirements for raptor nesting surveys (Section 2), Washington ground squirrel surveys (Section 3), and the Wildlife Monitoring and Reporting System (Sections 5 and 6). Section 8, Literature Cited, was added to provide references and sources for completed requirements of the Plan.

Based on the results of the monitoring programs, mitigation of significant impacts may be required. The selection of the mitigation actions should allow for flexibility in creating appropriate responses to monitoring results that cannot be known in advance. If the Department determines that mitigation is needed, the certificate holders shall propose appropriate mitigation actions to the Department and shall carry out mitigation actions approved by the Department, subject to review by the Oregon Energy Facility Council (Council).

1. Fatality Monitoring

The certificate holders conducted two years of post-construction fatality monitoring following substantial completion or commercial operations date (COD) of the Facilities reflecting operating impacts on wildlife. The results of the post-construction fatality monitoring are presented in Downes et al. (2013).

2. Raptor Nest Surveys

The objectives of -raptor nest surveys are: (1) to estimate the size of the local breeding populations of raptor species that nest on the ground or aboveground in trees or other aboveground nest locations in the vicinity of the facility; and (2) to determine whether operation of the facility results in a reduction of nesting activity or nesting success in the local populations of the following raptor species: Swainson's hawk, golden eagle, ferruginous hawk and burrowing owl. For each phase of LJIIA/B, the certificate holder conducted the first year of post-construction raptor nest surveys in 2011 (Downes et al. 2012), the first raptor nesting season after construction of that phase was completed. The second year of surveys was done in 2015 with results presented in Gerhardt and Kronner (2015). Hereafter, the certificate holders shall conduct long-term raptor nest surveys as described below and summarized in Section 2(d). The certificate holder will share the data with state and federal biologists

(a) Survey Protocol

• For Raptor Species that Nest Aboveground

During long-term survey years, each certificate holder shall use aerial and ground surveys to evaluate nest success by gathering data on active nests, on nests with young and on young fledged. Each certificate holder will conduct aerial surveys to determine nest occupancy in late May or early June within the site and a 2-mile buffer around the site (as identified in Downes et al., 2012, Leaning Juniper II Wildlife Monitoring Report for 2011–2012). Two helicopter visits to each nest may be required to determine *occupancy*. These surveys may be coordinated with adjacent wind facilities. All nests discovered during pre-construction surveys and any nests discovered during post-construction surveys, whether active or inactive, will be given identification numbers. Nest locations will be recorded on U.S. Geological Survey 7.5-minute

- 1 quadrangle maps. Global positioning system coordinates will be recorded for each nest.
- 2 Locations of inactive nests will be recorded because they could become occupied during future
- years. For occupied nests, the certificate holder shall determine nesting *success* by a minimum
- 4 of one ground visit to determine species, number of young and young fledged. "Nesting success"
- 5 means that the young have successfully fledged (reach advanced stage of development, the
- 6 young are capable of independent movements). Nests that cannot be monitored due to the
- 7 landowner denying aerial or ground access will be checked from a distance where feasible.

For Burrowing Owls The certificate holders monitored burrowing owl nests in 2011 and in 2015 (Downes et al. 2012, Gerhardt and Kronner 2015). Hereafter, each certificate holder will survey burrowing owl nest sites discovered during pre- and post-construction surveys (as identified in Downes et al., 2012, Leaning Juniper II Wildlife Monitoring Report for 2011–2012) as a part of the long-term raptor nest monitoring program described above and in Section 2(d). Any nests discovered during future post-construction surveys, whether active or showing signs of intermittent use by the species will be given identification numbers and monitored. Nest locations will be recorded on U.S. Geological Survey 7.5-minute quadrangle maps. Global positioning system coordinates will be recorded for each nest site. Coordinates for ancillary burrows used by one nesting pair or a group of nesting pairs will also be recorded. Locations of inactive nests will be recorded because they could become occupied during future years.

(b) Analysis

For each phase of the facility, the certificate holders analyzed the raptor nesting data collected after two survey years to determine whether a reduction in either nesting success or nest use has occurred in the vicinity of the facility (see Gerhardt and Kronner 2015).. The number of nests and raptor species composition demonstrated natural variation within the typical range of the various species, between 2011 and 2015. The Swainson's hawk nesting density continued to be high for a landscape dominated by natural habitats. Much of this variability can be attributed to natural conditions associated with precipitation levels, available prey base (voles, ground squirrels, and invertebrates), and interspecies (common raven) competition.

(c) Mitigation

The certificate holders shall propose mitigation for the affected species in consultation with the Department and ODFW and shall implement mitigation as approved by the Council (see Section 2(d)).

(d) Long-term Raptor Nest Monitoring and Mitigation Plan

In addition to the two years of post-construction raptor nest surveys described in Section 2(a), each certificate holder shall conduct long-term raptor nest surveys at five-year intervals for the life of the facility.³ The certificate holders shall conduct the first long-term raptor nest survey in 2020. In conducting long-term surveys, the certificate holders shall follow the same survey protocols as described above in Section 2(a) and in Gerhardt and Kronner (2015) unless the certificate holders propose an alternative protocol that is approved by the Department. In developing an alternative protocol, the certificate holders shall consult with ODFW.

³ As used in this plan, "life of the facility" means continuously until the facility site is restored and the site certificate is terminated in accordance with OAR 345-027-0110.

Each certificate holder shall analyze the raptor nesting data collected after each year of long-term raptor nest surveys to determine whether a reduction in either nesting success or nest use has occurred in the vicinity of the facility. If the analysis indicates a reduction in nesting success or nest use by Swainson's hawks, golden eagles, ferruginous hawks or burrowing owls within the facility site or within 2 miles of the facility site, then the certificate holders shall propose appropriate mitigation for the affected species as described in Section 2(a) and shall implement mitigation as approved by the Council. At a minimum, if the analysis shows that any raptors of these species have abandoned a nest territory within the facility site or within ½ mile of the facility site or has not fledged any young over the two survey years within that same area, the certificate holders shall assume the abandonment or unsuccessful fledging is due to operation of the facility unless another cause can be demonstrated convincingly.

Any reduction in nesting success or nest use could be due to operation of the facility, operation of another wind facility in the vicinity or some other cause, including changes in land use patterns after construction of the facility. The certificate holders shall attribute the reduction to operation of LJIIA/B if the wind turbine closest to the affected nest site is an LJIIA/B turbine unless the certificate holder demonstrates, and the Department agrees, that the reduction was due to a different cause.

Given the low raptor nesting densities in the area and the presence of other wind energy facilities nearby, statistical power to detect a relationship between distances from a wind turbine and nesting parameters (e.g., number of fledglings per reproductive pair) will be very low. Therefore, impacts may have to be judged based on trends in the data, results from other wind energy facility monitoring studies and literature on what is known regarding the populations in the region.

3. Washington Ground Squirrel Surveys

For the LJIIA/B area, the certificate holders conducted surveys in 2011, the year following construction , and 2014 to collect data on Washington ground squirrel (WGS) activity within the lease boundary (Downes et al. 2012, 2014). A qualified professional biologist monitored the WGS sites in the facility identified during the pre-construction surveys (2005 through 2007) and the buffer area within 500 feet in all directions from the identified WGS sites in suitable habitat. The sites include the historic areas at LJIIA/B (as identified in Downes et al. 2012). Overall, WGS are active in the area but have shifted areas of occupancy from pre-construction boundaries.

Hereafter, the certificate holders shall conduct long-term WGS use surveys at LJII-A/B) every three years for the life of the facility (2017, 2020, 2023...). Post-construction WGS monitoring for the LJIIA/B areas will assess the status (occurrence) and use (extent) of colonies. Surveyors will conduct standard recording protocols (level of use, notes on natal sites and physical extent of the sites) during meandering pedestrian (40-60 m spacing) surveys of the identified sites and suitable habitat within 500 ft. buffer twice between late March and late May, during the active WGS periods. The biologist will also record incidental observations (including mapping and dates of observation) during other survey activities on the facility sites. These observations shall also include current land use and any land use or project-caused conditions (erosion, declines in vegetation quality) that may adversely affect WGS sites. This monitoring will be consistent with the Incidental Take Permit (ITP) application for LJIIA as set forth in Attachment E of the Final Order on the Application. These surveys may be coordinated

with adjacent wind facilities to enhance data collection and analysis of WGS activity in the area.

4. Grassland Bird Study

The grassland bird study was a 2-year, post-construction evaluation of grassland bird use in the Facility area. Parts of the Facility occupy native habitat suitable for various ground-nesting bird species that nest in grassland or open low shrub habitat. The objective of the post-construction grassland bird study is to determine if there are noticeable changes in the presence and overall use by special status grassland bird species compared to pre-construction data collected in 2006.

(a) Study Area

The study areas were located within the LJIIA/B area and covered approximately 1,362 acres.⁴ The study areas were selected because they are somewhat removed from human activity (except low traffic use on facility access roads and one county road) and contain a large area of grassland/shrub-steppe habitat (mapped as habitat sub-type "SSB") that is not proposed to be altered during project construction or operations.

(b) Survey Protocol

The certificate holders conducted the first year of post-construction grassland surveys in 2011, the first spring following the beginning of commercial operation of the facility (Downes et al. 2012). The certificate holders conducted a second year of grassland surveys in 2014. Findings of the grassland bird study were presented Downes and Gritski (2014).

(c) Data Analysis and Reporting

After the first survey year (2011), the certificate holders submitted a preliminary summary report to the Department (Downes et al. 2012). After the second survey year (2014), the certificate holders submitted a more comprehensive final report (Downes and Gritski 2014). Overall, no noticeable change in presence and overall use by special status grassland birds was observed when compared to pre-construction findings.

5. Wildlife Monitoring and Reporting System

The Wildlife Monitoring and Reporting System (WMRS) is an on-going monitoring program to report avian and bat casualties found by maintenance personnel during operation of the facility. It consists of weekly Environmental Coordinator (EC) Inspections of selected turbines conducted during both spring and fall migration seasons, monthly SPCC Turbine Checks of every turbine, and Incidental Observations with discovery of bird and bat carcasses and injured wildlife incidental to operations and maintenance. The certificate holders' maintenance personnel will be trained in the methods needed to carry out this program.

All avian and bat carcasses discovered by the certificate holders' maintenance personnel will be reported to the on-site EC for same day data recording (species, location, date, conditions) and for photo documentation. This information will be processed within WRMS and reviewed by the certificate holders biologists for confirmation of information and identification. If the carcass is suspected to be an eagle or a state or federally-listed endangered or threatened

- species, the certificate holders will contact ODFW and US Fish and Wildlife Service (USFWS)
- 2 to report and coordinate collection. The certificate holder will secure the carcass (e.g., cover with
- a container) until, if appropriate, collection is completed. The certificate holders will not handle
- 4 or transport any bat or bat carcass without a state or federal scientific collection or special use
- 5 permit (SPUT).

6. Data Reporting

Each certificate holder will report wildlife monitoring data and analysis to the Department. Monitoring data include fatality monitoring program data; raptor nest survey data; WGS survey data, incidental observation, and assessment reports; grassland bird study data; and WMRS (specifically eagles or state and federally-listed endangered or threatened species) data. The certificate holders may include the reporting of wildlife monitoring data and analysis in the annual report required under OAR 345-026-0080 or submit this information as a separate document at the same time the annual report is submitted. In addition, the certificate holder shall provide to the Department any data or record generated in carrying out this monitoring plan upon request by the Department.

The certificate holders shall notify USFWS and ODFW immediately if any federal or state endangered or threatened species are killed or injured on the facility site.

The public will have an opportunity to receive information about monitoring results and to offer comment. Within 30 days after receiving the final versions of reports that are required under this plan, the Department will make the reports available to the public on its website and will specify a time in which the public may submit comments to the Department.⁵

7. Amendment of the Plan

This Wildlife Monitoring and Mitigation Plan may be amended from time to time by agreement of the certificate holders and the Council. Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this Plan and to mitigation actions that may be required under this Plan. The Department shall notify the Council of all amendments and mitigation actions, and the Council retains the authority to approve, reject, or modify any amendment of this Plan or mitigation action agreed to by the Department.

8. Literature Cited (Documents cited are available on the Oregon Department of Energy web site)

Downes, S., B. Gritski, B. Anderson, and S. Zielin. 2012. Leaning Juniper II Wind Power Facility Wildlife Monitoring Study Annual Report, March 2011—July 2012. Prepared for Leaning Juniper II, LLC, Portland, Oregon. Prepared by Northwest Wildlife Consultants, Inc. dated October 23, 2012.

Downes, S., B. Gritski, and S. Woods. 2013. Leaning Juniper II Wind Power Facility Wildlife Fatality Monitoring Study January 2011-July 2013. Prepared for Iberdrola Renewables, Portland, Oregon. Prepared by Northwest Wildlife Consultants, Inc., Pendleton, Oregon dated November 27,2013.

⁵ The certificate holders may establish a Technical Advisor Committee (TAC) but are not required to do so. If the certificate holders establish a TAC, the TAC may offer comments to the Council about the results of the monitoring required under this plan.

1 2 3	Downes, S. and B. Gritski. 2014. Leaning Juniper II Wind Power Facility 2014 Wildlife Monitoring. Prepared for Iberdrola Renewables, Portland, Oregon. Prepared by Northwest Wildlife Consultants, Inc., Pendleton, Oregon dated October 6, 2014.
4	Gerhardt R. and K. Kronner. 2015. Leaning Juniper II Wind Power Facility Raptor Nest
5	Survey 2015. Report prepared by Northwest Wildlife Consultants, Inc. dated September
6	15, 2015 Leaning Juniper Wind Power II (LJWPII), LLC. 2013. Leaning Juniper IIA and
7	IIB Wind Project: Wildlife Monitoring and Mitigation Plan. June 21, 2013. Oregon
8	Energy Facility Siting Council of the State of Oregon, Final Order on Amendment #2-
9	Attachment D. Second Amended Site Certificate for the Leaning Juniper II Wind Power
10	Facilities.

Leaning Juniper Wind Power II, LLC 1125 NW Couch, Suite 700 Portland, OR 97209

April 29, 2020

Duane Kilsdonk Senior Compliance Officer Oregon Department of Energy 550 Capitol St. NE Salem, OR 97301

Re: 2019 Annual Report for Leaning Juniper II B

Dear Mr. Kilsdonk,

Leaning Juniper Wind Power II, LLC ("LJII"), a wholly owned subsidiary of Avangrid Renewables, LLC (Formerly Iberdrola Renewables, LLC) ("AR") provides this annual report in compliance with Site Certificate Condition No. 21. Enclosed with this submittal is supporting material, including the compliance matrix which satisfies condition 20.

Facility Status – Condition 21 (b)(i)

Leaning Juniper II B did not suffer any unusual events in 2019 and maintained normal operations.

Reliability and Efficiency of Power Production – Condition 21 (b)(ii)

Provided separately under confidential cover.

Fuel Use – Condition 21 (b)(iii)

Not Applicable. Leaning Juniper II B is not a thermal power plant.

Status of Surety Information – Condition 21 (b)(iv)

Bond Number K08640609, issued by Westchester Fire Insurance Company remained in full force and effect for all of 2019. Effective as of February 15, 2019, the bond was increased from \$11,577,000 to \$11,920,000 (see attached LJW 2019 Continuation Certificate and Increase Rider).

Monitoring Report – Condition 21 (b)(v)

Wildlife

No wildlife monitoring was required or completed in 2019. As outline in the Wildlife Monitoring and Mitigation Plan ("WMMP"), LJII completed avian and bat fatality monitoring from 2011 to 2013. Washington ground squirrel monitoring occurs every 3 years after project operation and surveys were completed in 2014 and 2017. Raptor nest monitoring was completed in 2011 and 2015. Results from these surveys are available in past annual reports.

Wildlife Monitoring and Reporting System

No observations in 2019.

Revegetation

Conditions for revegetation monitoring in 2015. No revegetation monitoring was required, nor was any conducted in 2019.

Habitat Mitigation

LJII holds the legal rights for a 92-acre Habitat Mitigation Area ("HMA"). This HMA covers the facility's impacts for both LJII A and LJII B and the habitat impacts from the final as-built facilities.

In 2015, ODFW and ODOE concurred that the trajectory of vegetation in the HMA was improving following the institution of grazing restrictions. Therefore, the monitoring methods were amended at that time to consist of 1) continuing monitoring of wildfire activity, 2) assessing general vegetation conditions within the HMA using photomonitoring points and a meandering pedestrian survey of the HMA, 3) documenting noxious weed populations and 4) providing recommendations for weed control. This change was documented in the 2015 HMA monitoring report. LJII will use these modified methods until 2021, when the grazing restrictions with the landowner expire.

2019

HMA photo-monitoring was conducted in July 2019. Monitoring results indicated that the HMA continues to exhibit growth of native shrub recruits, growth and seed production of desired bunchgrasses, and improved habitat structure. The 2019 HMA monitoring report was provided to ODOE and ODFW; no comments were received. See enclosed HMA monitoring report.

Compliance Report – Condition 21 (b)(vi)

Leaning Juniper II B had no instances of noncompliance in 2019.

Facility Modification Report – Condition 21 (b)(vii)

There are no facility modifications for Leaning Juniper II B to report for in 2019.

Nongenerating Facility Carbon Dioxide Emissions – Condition 21 (b)(viii)

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Not applicable.

Please feel free to contact me at (503)796-7245 with any questions or requests for additional information.

Regards,

Cameron Turner Asset Manager

Enclosed:

- Leaning Juniper II B_Compliance Matrix_2020(Op yr 2019)
- LJW 2019 Continuation Certificate and Increase Rider
- Mason, Bruce, & Girard Inc. July 29, 2019, Leaning Juniper IIA and IIB: 2019 (Year 9) Habitat Mitigation Area Photo-Monitoring and Reporting.

Provided Separately:

• Leaning Juniper IIB Reliability and Efficiency of Power Production (Confidential)