BEFORE THE
ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON

In the Matter of the Request for Amendment #3 of the Site Certificate for the Stateline Wind Project	))))	FINAL ORDER ON AMENDMENT #3

June 20, 2005

STATELINE WIND PROJECT:
FINAL ORDER ON AMENDMENT #3

TABLE OF CONTENTS

I. INTRODUCTION 1

II. PROCEDURAL HISTORY AND AMENDMENT PROCESS 1

III. DESCRIPTION OF THE PROPOSED AMENDMENT 2

1. PROCEDURE REGARDING EXTENSION OF DEADLINES 2
2. PROCEDURE REGARDING MODIFICATION OF CONDITION 105 3
3. CHANGES TO THE SITE CERTIFICATE AS PROPOSED BY FPL 4

IV. THE COUNCIL'S SITING STANDARDS: FINDINGS AND CONCLUSIONS 5

1. GENERAL STANDARD OF REVIEW 6
2. STANDARDS ABOUT THE APPLICANT 6
   (a) Organizational Expertise 6
   (b) Retirement and Financial Assurance 8
3. STANDARDS ABOUT IMPACTS OF CONSTRUCTION AND OPERATION 9
   (a) Land Use 9
   (b) Soil Protection 21
   (c) Protected Areas 22
   (d) Scenic and Aesthetic Values 24
   (e) Recreation 25
   (f) Public Health and Safety Standards for Wind Energy Facilities 26
   (g) Siting Standards for Wind Energy Facilities 26
   (h) Siting Standards for Transmission Lines 28
4. STANDARDS TO PROTECT WILDLIFE 29
   (a) Threatened and Endangered Species 29
   (b) Fish and Wildlife Habitat 30
5. STANDARDS NOT APPLICABLE TO SITE CERTIFICATE ELIGIBILITY 32
   (a) Structural Standard 32
   (b) Historic, Cultural and Archaeological Resources 33
   (c) Public Services 33
   (d) Waste Minimization 34

V. OTHER APPLICABLE REGULATORY REQUIREMENTS: FINDINGS AND CONCLUSIONS 35

1. REQUIREMENTS UNDER COUNCIL JURISDICTION 35
   (a) Noise Control Regulations 35
   (b) Wetlands 42
   (c) Water Rights 43
   (d) Public Health and Safety 43
2. REQUIREMENTS THAT ARE NOT UNDER COUNCIL JURISDICTION 44
   (a) Federally-Delegated Programs 44
   (b) Requirements That Do Not Relate to Siting 44

VI. GENERAL APPLICATION OF CONDITIONS 44

VII. GENERAL CONCLUSION 45

1. THE DEPARTMENT'S RECOMMENDED REVISIONS 46

VIII. PROPOSED ORDER 49

LIST OF ABBREVIATIONS

Council	Energy Facility Siting Council
Department	Oregon Department of Energy
dBA	The "A-weighted" sound pressure level. The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighted filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
DEQ	Oregon Department of Environmental Quality
EFU	land zoned for "exclusive farm use"
FPL	FPL Energy Vansycle LLC
FPL Energy	FPL Energy LLC, parent company of FPL
kV	kilovolt or kilovolts
LCDC	Land Conservation and Development Commission
mph	miles per hour
MW	megawatt or megawatts
m/s	meters per second
ODFW	Oregon Department of Fish and Wildlife
Stateline	Stateline Wind Project
Stateline 1	The Stateline facility approved by the original site certificate issued September 14, 2001
Stateline 2	The expansion of Stateline approved by Amendment #1
Stateline 3	The proposed expansion of Stateline that is the subject of this Amendment #2
WGS	Washington ground squirrel(s)

STATELINE WIND PROJECT:
FINAL ORDER ON AMENDMENT #3

I. INTRODUCTION

The Oregon Energy Facility Siting Council (Council) issues this order in accordance with ORS 469.405 and OAR 345-027-0070. This order addresses a request by the certificate holder for amendment of the site certificate for the Stateline Wind Project (Stateline). The certificate holder is FPL Energy Vansycle, LLC (FPL).

On September 14, 2001, the Council issued a site certificate for an 83.8-megawatt (MW) wind energy facility in Umatilla County, Oregon (referred to in this proposed order as "**Stateline 1**" [1]). FPL began construction of Stateline 1 on September 17, 2001, and completed construction on December 20, 2001. The facility began commercial operation on December 21, 2001.

On May 17, 2002, the Council issued its Final Order in the Matter of the Request for Amendment #1 of the Site Certificate for the Stateline Wind Project ("Final Order on Amendment #1"). Amendment #1 authorized FPL to expand the Stateline facility by the construction of 60 additional turbines and related or supporting facilities (referred to in this proposed order as "**Stateline 2**"[2]). FPL completed construction of these turbines on December 15, 2004.

On June 6, 2003, the Council issued its Final Order on Amendment #2. Amendment #2 authorized FPL to expand the Stateline facility by the construction of 279 additional turbines and related facilities (referred to in this proposed order as "**Stateline 3**"[3]). Amendment #2 increased the permitted peak electric generation capacity of the facility by 184 MW. None of the facilities approved by Amendment #2 have been built. Currently, the Stateline wind facility includes 186[4] operating turbines in Oregon with a combined electrical generating capacity of approximately 123 MW.

The definitions in ORS 469.300 and OAR 345-001-0010 apply to terms used in this order.

II. PROCEDURAL HISTORY AND AMENDMENT PROCESS

FPL submitted a request to amend the site certificate to the Oregon Department of Energy (Department) on March 28, 2005. As required under OAR 345-027-0070, the Department sent copies of the request to the appropriate officers, agencies and tribes listed in OAR 345-020-0040 within 15 days after receiving the request. The Department requested comments by May 6, 2005. Also as required under the rule, the Department sent notice of the amendment request to all persons on the Council's mailing list and to persons on a list of

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[1] Described in the Council's Final Order in the Matter of the Application for a Site Certificate for the Stateline Wind Project ("Final Order on the Application"), pages 9-13.
[2] Described in the Council's Final Order on Amendment #1, page 3.
[3] Described in the Council's Final Order on Amendment #2, pages 4-5.
[4] The site certificate authorized FPL to construct 127 Stateline 1 turbines. Based on site considerations, FPL elected to build 126 Stateline 1 turbines.

property owners supplied by FPL. On April 7, 2005, the Department notified FPL that the proposed order would be issued no later than June 7, 2005.

The Department issued a proposed order on May 19, 2005. The Department issued public notice of the proposed order in accordance with OAR 345-027-0070(4). The deadline for comments or requests for a contested case was 12:00 noon on June 20, 2005. The Department did not receive any comments or contested case requests by the deadline.

The Council took final action on the amendment request at a meeting on June 20, 2005, after the comment period deadline.

III. DESCRIPTION OF THE PROPOSED AMENDMENT

FPL requested two changes to the site certificate:

1. Extending the construction deadlines in Condition 106: The proposed amendment would extend the deadline to begin construction of Stateline 3 to June 23, 2007, and the deadline to complete construction of Stateline 3 to December 31, 2007.
2. Modifying Condition 105: As adopted by the Council in 2003, Condition 105 requires the certificate holder to enter into "no-occupation agreement" with the landowner of a property within the general area of the Stateline 2 turbines. Under the agreement, the property must not be used for a residence during construction and operation of Stateline 2 "unless, based on noise studies during operation, the certificate holder demonstrates to the satisfaction of the Office of Energy that turbine noise measured at the property is within the range allowed for a sensitive noise receptor under OAR 340-035-0035." The proposed amendment would remove the requirement of a "non-occupation agreement" and would modify Condition 105 according to new noise regulations that were adopted by the Oregon Environmental Quality Commission after the Council issued the Second Amended Site Certificate. The new regulations allow the owner of a noise sensitive property to waive the 10-dBA limit on the increase in ambient statistical noise caused by the facility.

1. Procedure Regarding Extension of Deadlines

Under OAR 345-027-0030, a certificate holder may request an extension of the deadlines for beginning and completing construction. The Council may grant an extension of no more than two years from the current deadline. The Council rule requires the certificate holder to submit the request "no later than six months before the date of the applicable deadline, or, in the case of circumstances beyond the control of the certificate holder and described in the request, no later than the applicable deadline." Under the Second Amended Site Certificate, the deadline to begin construction of Stateline 3 is June 23, 2005.

FPL submitted this request to extend the deadline for beginning construction approximately three months before the deadline; however, FPL had previously notified the Department that it was considering an amendment request to modify the design of Stateline 3 and to extend the construction deadlines in one amendment proceeding. FPL has not completed its evaluation of a redesign of the Stateline 3 facility. With the advice of the Department, FPL is filing this amendment to extend the construction deadlines "in order to maintain the site certificate in good standing while facility modifications are being

evaluated."[5] The Council accepts this amendment request to extend the construction deadlines as timely filed under the circumstances described.

Under OAR 345-027-0070(9), for an amendment that extends the deadlines for beginning or completing construction, the Council must consider: (a) whether the Council has previously granted an extension of the deadline; (b) whether there has been any change of circumstances that affects a previous Council finding that was required for issuance of a site certificate or amended site certificate; and (c) whether the facility complies with all Council standards.

The Council has not previously granted an extension of the construction deadlines for Stateline 3. The Council has previously granted an extension of the deadline for completing construction for five of the 60 approved Stateline 2 turbines.[6] In approving Amendment #2, the Council extended the construction completion deadline for the five turbines from March 1, 2003, to March 1, 2005. FPL completed construction of these five turbines in December 2004.

With regard to the proposed site of the Stateline 3 facilities, FPL proposes no change to the design or location of the turbines or other facilities at this time. Although there has been no change of circumstances affecting the proposed site or the potential impacts of Stateline 3, there have been two changes to applicable state and local law. The Oregon Environmental Quality Commission amended the state noise control regulations applicable to wind energy facilities, effective June 11, 2004, and Umatilla County amended several sections of the Umatilla County Development Code (UCDC) to include specific conditional use standards for wind power generation facilities, effective May 20, 2003. These changes to applicable laws are a change of circumstances that would affect the Council's previous findings.

Sections IV and V below address compliance of the facility with Council standards as required under OAR 345-027-0070(9), including compliance with new law.

2. Procedure Regarding Modification of Condition 105

Under OAR 345-027-0050(1), the certificate holder must request a site certificate amendment "to design, construct, operate or retire a facility in a manner different from the description in the site certificate" if the proposed change "could require a new condition or a change to a condition in the site certificate." The proposed application of new state noise control regulations that were adopted after the effective date of the Second Amended Site Certificate would change the operation of the facility by removing the obligation to maintain a "no-occupation agreement" with the affected landowner. The proposed change would require a change to a condition in the site certificate. Accordingly, the Council finds that amendment of the site certificate is required to apply the new noise control regulations.

OAR 345-027-0070(9)(c) applies to the proposed modification of Condition 105. The Council must consider "the effects of the amendment on any finding required by Council standards for issuance of a site certificate." Sections IV and V below address the effects of the proposed amendment on the findings required for issuance of a site certificate.

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[5] *Certificate Holder's Request for Third Amendment to the Stateline Wind Project Site Certificate* (Request for Amendment #3), p. 2.

[6] Construction of the remaining 55 Stateline 2 turbines had been completed before the extension request.

3. Changes to the Site Certificate as Proposed by FPL

In its request for Amendment #3, FPL proposed the following amendments to the site certificate. Additions are double-underlined and deletions have a strikethrough.

At page 1, lines 7-12:

The findings of fact, reasoning and conclusions of law underlying the terms and conditions of this site certificate are set forth in the following documents, incorporated herein by this reference: (a) the Council's Final Order in the Matter of the Application for a Site Certificate for the Stateline Wind Project ("Final Order on the Application"), issued on September 14, 2001, (b) the Council's Final Order in the Matter of the Request for Amendment #1 of the Site Certificate for the Stateline Wind Project ("Final Order on Amendment #1"), ~~and~~ (c) the Council's Final Order in the Matter of the Request for Amendment #2 of the Site Certificate for the Stateline Wind Project ("Final Order on Amendment #2"), and (d) the Council's Final Order in the Matter of the Request for Amendment #3 of the Site Certificate for the Stateline Wind Project ("Final Order on Amendment #3"). [Amendments #1, ~~and~~ #2, and #3]

In interpreting this site certificate, any ambiguity will be clarified by reference to the following, in order of priority: this Third Amended Site Certificate, the Final Order on Amendment #3, ~~Second Amended Site Certificate~~, the Final Order on Amendment #2, the Final Order on Amendment #1, the Final Order on the Application and the record of the proceedings that led to the Final Orders on the Application and Amendments #1, ~~and~~ #2, and #3. [Amendments #1, ~~and~~ #2, and #3]

At page 1, lines 31-37:

3. This site certificate does not address, and is not binding with respect to, matters that were not addressed in the Council's Final Orders on the Application and Amendments #1, ~~and~~ #2, and #3. These matters include, but are not limited to: building code compliance, wage, hour and other labor regulations, local government fees and charges and other design or operational issues that do not relate to siting the facility (ORS 469.401(4)) and permits issued under statutes and rules for which the decision on compliance has been delegated by the federal government to a state agency other than the Council. 469.503(3). [Amendments #1, ~~and~~ #2 and #3]

At page 11, line 33, to page 12, line 14

(37) To reduce the visual impact of the facility, the certificate holder shall:

* * *

(i) Design and construct the operation and maintenance building to be generally consistent with the character of similar buildings used by commercial farmers or ranchers. Upon retirement of the energy facility, the operations and maintenance building must be removed or converted to farm use. [Amendment #3]

At page 24, lines 39-43 and page 25, lines 1 and 2

(105) ~~The certificate holder shall enter into an agreement with the landowner of a property identified as 84301 Stockman Road, Helix, Oregon, requiring that the structure remain uninhabited during construction. The certificate holder shall continue the no-occupation agreement during operation for the life of the Stateline 2 facility unless, based on noise studies during operation, the certificate holder demonstrates to the satisfaction of the Office of Energy that turbine noise measured at the property is within the range allowed~~

~~for a sensitive noise receptor under OAR 340-035-0035~~ The certificate holder shall enter into a legally effective easement or real covenant with the owner of the property identified as 84301 Stockman Road, Helix, Oregon, pursuant to which the owner authorizes the Stateline 2 facilities to increase ambient statistical noise levels L10 and L50 on the respective properties by more than 10 dBA at the appropriate measurement point. A legally effective easement or real covenant shall: include a legal description of the burdened property (the noise sensitive property); be recorded in the real property records of the county; expressly benefit the certificate holder; expressly run with the land and bind all future owners, lessees or holders of any interest in the burdened property; and not be subject to revocation without the certificate holder's written approval. The certificate holder shall maintain such easement or real covenant in effect until the retirement of the Stateline 2 facility, unless the certificate holder demonstrates to the satisfaction of the Office of Energy, based on modeling or measurements performed in compliance with OAR 340-035-0035, that an easement or real covenant is not necessary to comply with those regulations. [Amendment #3].

Page 25, lines 12-20

1. General Conditions

(106) The certificate holder shall begin construction of Stateline 3 by June 23, 2007~~within twenty-four months after the effective date of the Second Third Amended Site Certificate~~. The certificate holder shall complete construction of Stateline 3 before December 31, 200~~5~~7. Under OAR 345-027-0070, an amended site certificate is effective upon execution by the Council Chair and the applicant. Completion of construction occurs upon the date commercial operation of the facility begins. The Council may grant an extension of the construction beginning or completion deadlines in accordance with OAR 345-027-0030 or any successor rule in effect at the time the request for extension is submitted [Amendment #3].

Page 26, line 29

(111A) Prior to constructing any turbine within 5,000 feet of the property identified as 81876 Gerking Flat Road, Athena, Oregon, the certificate holder shall enter into a legally effective easement or real covenant pursuant to which the owner of the property authorizes the Stateline 3 facilities to increase ambient statistical noise levels L10 and L50 by more than 10 dBA at the appropriate measurement point. The 5,000-foot distance shall be measured from the appropriate measurement point as determined pursuant to OAR 340-035-0035. A legally effective easement or real covenant shall: include a legal description of the burdened property (the noise sensitive property); be recorded in the real property records of the county; expressly benefit the certificate holder; expressly run with the land and bind all future owners, lessees or holders of any interest in the burdened property; and not be subject to revocation without the certificate holder's written approval. The certificate holder shall maintain such easement or real covenant in effect until the retirement of the Stateline 3 facility, unless the certificate holder demonstrates to the satisfaction of the Office of Energy, based on modeling or measurements performed in compliance with OAR 340-035-0035, that an easement or real covenant is not necessary to comply with those regulations. [Amendment #3]

IV. THE COUNCIL'S SITING STANDARDS: FINDINGS AND CONCLUSIONS

In accordance with OAR 345-027-0070(9), in making findings on the Land Use standard, the Council applies the applicable substantive criteria in effect on the date the

certificate holder submitted the request for amendment. In making findings on all other standards, the Council applies any applicable state statutes, administrative rules and local government ordinances that are in effect on the date the Council makes its decision.[7]

1. General Standard of Review

OAR 345-022-0000

(1) To issue a site certificate for a proposed facility or to amend a site certificate, the Council shall determine that the preponderance of evidence on the record supports the following conclusions:

(a) The facility complies with the requirements of the Oregon Energy Facility Siting statutes, ORS 469.300 to ORS 469.570 and 469.590 to 469.619, and the standards adopted by the Council pursuant to ORS 469.501 or the overall public benefits of the facility outweigh the damage to the resources protected by the standards the facility does not meet as described in section (2);

(b) Except as provided in OAR 345-022-0030 for land use compliance and except for those statutes and rules for which the decision on compliance has been delegated by the federal government to a state agency other than the Council, the facility complies with all other Oregon statutes and administrative rules identified in the project order, as amended, as applicable to the issuance of a site certificate for the proposed facility. If the Council finds that applicable Oregon statutes and rules, other than those involving federally delegated programs, would impose conflicting requirements, the Council shall resolve the conflict consistent with the public interest. In resolving the conflict, the council cannot waive any applicable state statute.

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This order addresses the requirements of OAR 345-022-0000 in the findings of fact, reasoning and conclusions of law discussed in the sections that follow. In Section VII below, the Council makes conclusions regarding compliance with the General Standard of Review based on consideration of all of the evidence in the record.

2. Standards about the Applicant

(a) Organizational Expertise

OAR 345-022-0010:

(1) To issue a site certificate, the Council must find that the applicant has the organizational expertise to construct, operate and retire the proposed facility in compliance with Council standards and conditions of the site certificate. To conclude that the applicant has this expertise, the Council must find that the applicant has demonstrated the ability to design, construct and operate the proposed facility in compliance with site certificate conditions and in a manner

[7] The Council is not authorized to determine compliance with regulatory programs that the federal government has delegated to another state agency (ORS 469.503(3)). The Council has no jurisdiction over design or operational issues that do not relate to siting, such as matters relating to employee health and safety, building code compliance, wage or hour or other labor regulations, or local government fees and charges (ORS 469.401(4)).

that protects public health and safety and has demonstrated the ability to restore the site to a useful, non-hazardous condition. The Council may consider the applicant's experience, the applicant's access to technical expertise and the applicant's past performance in constructing, operating and retiring other facilities, including, but not limited to, the number and severity of regulatory citations issued to the applicant.

(2) The Council may base its findings under section (1) on a rebuttable presumption that an applicant has organizational, managerial and technical expertise, if the applicant has an ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the facility according to that program.

(3) If the applicant does not itself obtain a state or local government permit or approval for which the Council would ordinarily determine compliance but instead relies on a permit or approval issued to a third party, the Council, to issue a site certificate, must find that the third party has, or has a reasonable likelihood of obtaining, the necessary permit or approval, and that the applicant has, or has a reasonable likelihood of entering into, a contractual or other arrangement with the third party for access to the resource or service secured by that permit or approval.

(4) If the applicant relies on a permit or approval issued to a third party and the third party does not have the necessary permit or approval at the time the Council issues the site certificate, the Council may issue the site certificate subject to the condition that the certificate holder shall not commence construction or operation as appropriate until the third party has obtained the necessary permit or approval and the applicant has a contract or other arrangement for access to the resource or service secured by that permit or approval.

Findings of Fact

In the Final Order on the Application, the Final Order on Amendment #1 and the Final Order on Amendment #2, the Council found that FPL has the organizational, managerial and technical expertise to construct and operate Stateline. The proposed amendment does not affect the Council's previous findings. This amendment does not involve any change in FPL's organization or personnel, nor does it alter the scope of the project in a way that might require different expertise or experience. FPL has constructed 186 of the 466 wind turbines authorized by the site certificate and has otherwise complied with the terms and conditions of the site certificate. There have been no reported regulatory citations imposed on FPL. There has been no other change of circumstances or underlying facts that affects the Council's findings under this standard.

In the Final Order on Amendment #2, the Council found that the certificate holder has a reasonable likelihood of entering into a contractual or other arrangement with the City of Helix for access to 10 million gallons of water under the city's water right (a third-party permit) needed during construction of Stateline 3. There has been no change of circumstances affecting that finding.

Conclusions of Law

Based on the findings stated above, the Council concludes that FPL would meet the Council's Organizational Expertise Standard if Amendment #3 were approved. In addition, the Council concludes that no new conditions are required.

(b) Retirement and Financial Assurance

OAR 345-022-0050:

To issue a site certificate, the Council must find that:

(1) The site, taking into account mitigation, can be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility.

(2) The applicant has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition.

Findings of Fact

In the Final Order on the Application, the Council found that FPL demonstrated that it could adequately restore the site to a useful, nonhazardous condition. The Council found that a bond or letter of credit in the amount of $1,161,120 (in 2001 dollars) was satisfactory to ensure site restoration of Stateline 1 after completion of construction and restoration of areas temporarily disturbed during construction.

In the Final Order on Amendment #1, the Council found that a bond or letter of credit in the amount of $559,920 (in 2002 dollars) was satisfactory to ensure site restoration of Stateline 2 after completion of construction and restoration of areas temporarily disturbed during construction.

In the Final Order on Amendment #2, the Council found that a bond or letter of credit in the amount of $3,322,900 (in 2002 dollars) was satisfactory to ensure site restoration of Stateline 3 during construction and that a bond or letter of credit in the amount of $3,392,900 (in 2002 dollars) would ensure site restoration of Stateline 3 facility after completion of construction and restoration of areas temporarily disturbed during construction.

Amendment #3 does not increase the scope or cost of site restoration for any part of Stateline. There has been no change in FPL's ability to obtain the necessary bonds or letters of credit.

Conclusions of Law

Based on the findings stated above, the Council concludes that the proposed amendment does not affect FPL's ability to meet the Retirement and Financial Assurance standard or the conditions associated with it. The Council concludes that FPL would meet the Council's Retirement and Financial Assurance Standard if Amendment #3 were approved. In addition, the Council concludes that no new conditions are required.

3. Standards about Impacts of Construction and Operation

(a) Land Use

FPL has elected to have the Council make the land use determination. Accordingly, the following parts of OAR 345-022-0030 apply:

OAR 345-022-0030

(1) To issue a site certificate, the Council must find that the proposed facility complies with the statewide planning goals adopted by the Land Conservation and Development Commission.

(2) The Council shall find that a proposed facility complies with section (1) if:

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(b) The applicant elects to obtain a Council determination under ORS 469.504(1)(b) and the Council determines that:

(A) The proposed facility complies with applicable substantive criteria as described in section (3) and the facility complies with any Land Conservation and Development Commission administrative rules and goals and any land use statutes directly applicable to the facility under ORS 197.646(3);

(B) For a proposed facility that does not comply with one or more of the applicable substantive criteria as described in section (3), the facility otherwise complies with the statewide planning goals or an exception to any applicable statewide planning goal is justified under section (4); or

(C) For a proposed facility that the Council decides, under sections (3) or (6), to evaluate against the statewide planning goals, the proposed facility complies with the applicable statewide planning goals or that an exception to any applicable statewide planning goal is justified under section (4).

(3) As used in this rule, the "applicable substantive criteria" are criteria from the affected local government's acknowledged comprehensive plan and land use ordinances that are required by the statewide planning goals and that are in effect on the date the applicant submits the application. If the special advisory group recommends applicable substantive criteria, as described under OAR 345-021-0050, the Council shall apply them. If the special advisory group does not recommend applicable substantive criteria, the Council shall decide either to make its own determination of the applicable substantive criteria and apply them or to evaluate the proposed facility against the statewide planning goals.

(4) The Council may find goal compliance for a proposed facility that does not otherwise comply with one or more statewide planning goals by taking an exception to the applicable goal. Notwithstanding the requirements of ORS 197.732, the statewide planning goal pertaining to the exception process or any rules of the Land Conservation and Development Commission pertaining to the exception process, the Council may take an exception to a goal if the Council finds:

(a) The land subject to the exception is physically developed to the extent that the land is no longer available for uses allowed by the applicable goal;

(b) The land subject to the exception is irrevocably committed as described by the rules of the Land Conservation and Development Commission to uses not allowed by the applicable goal because existing adjacent uses and other relevant factors make uses allowed by the applicable goal impracticable; or

(c) The following standards are met:

(A) Reasons justify why the state policy embodied in the applicable goal should not apply;

(B) The significant environmental, economic, social and energy consequences anticipated as a result of the proposed facility have been identified and adverse impacts will be mitigated in accordance with rules of the Council applicable to the siting of the proposed facility; and

(C) The proposed facility is compatible with other adjacent uses or will be made compatible through measures designed to reduce adverse impacts.

* * *

Findings of Fact

In the Final Order on the Application, the Council found that Stateline 1 complied with the applicable substantive criteria of Umatilla County. The Council applied one provision of the Land Conservation and Development Commission (LCDC) administrative rules directly applicable to the facility under ORS 197.646(3) that pertains to protection of agricultural lands and implements Statewide Planning Goal 3 (Agricultural Lands). The Council found that Stateline 1 met the standards for an exception to the goal under OAR 345-022-0030(4)(c). The proposed Amendment #3 would make no change to the Stateline 1 facilities or otherwise affect the Council's land use findings regarding Stateline 1.

In the Final Order on Amendment #1, the Council found that Stateline 2 complied with the applicable substantive criteria of Umatilla County and with all directly applicable provisions of the LCDC administrative rules. The Council analyzed directly applicable land use requirements for the protection of agricultural lands (ORS 215.283 and applicable regulations) and found that no exception to Goal 3 was needed. The proposed Amendment #3 would make no change to the Stateline 2 facilities or otherwise affect the Council's land use findings regarding Stateline 2.

In the Final Order on Amendment #2, the Council found Stateline 3 complied with the applicable substantive criteria of Umatilla County and with all directly applicable provisions of the LCDC administrative rules. The Council analyzed the directly applicable land use requirements for the protection of agricultural lands (ORS 215.283 and applicable regulations) and found that no exception to Goal 3 was needed.

Amendment #3 would extend the construction deadlines for Stateline 3. In the amendment request, FPL does not propose any change in the location or facilities for Stateline 3. Under OAR 345-027-0070(9)(b), for an amendment that extends the deadlines for beginning or completing construction, the Council must consider whether the facility (that part of the Stateline facility for which construction has not begun) complies with all Council

standards. In making this decision, the Council applies the applicable substantive criteria in effect on the date the certificate holder submitted the request for amendment.

The Stateline 3 facility lies entirely within an Exclusive Farm Use (EFU) zone. In the Final Order on Amendment #2, the Council applied Umatilla County Development Code (UCDC) § 152.060(F), which provides that "commercial utility facilities for the purpose of generating power for public use by sale" are a conditional use in an EFU zone. On May 20, 2003, Umatilla County adopted conditional use standards applicable to the siting of "wind power generation facilities" in EFU zones. These criteria were not in effect when FPL submitted its request for Amendment #2, and, therefore, the Council did not make findings on the new criteria in the Final Order on Amendment #2.

Under the new local ordinance (Ordinance No. 2002-02), the specific conditional use standards of UCDC § 152.616(HHH) are cross-referenced in UCDC § 152.060(F) for application to wind power generation facilities. In particular, to approve Amendment #3, the Council must analyze the Stateline 3 facility under the applicable substantive criteria that are found in UCDC § 152.616(HHH)(5)-(12). Umatilla County has reviewed FPL's amendment request. The County supports Council approval of the proposed amendment.[8] The criteria contained in UCDC § 152.616(HHH) are set forth below in italics, followed by FPL's response and the Council's findings.

(5) The following requirements and restrictions apply to the siting of a facility:

(A) The Wind Power Generation Facility shall be on property zoned EFU/GF or NR, and no portion of the facility shall be within 3,520 feet of properties zoned residential use or designated on the Comprehensive Plan as residential. (For clarification purposes of this section, EFU/GF/NR zones are not considered zoned for residential use.)

FPL's Response

Stateline 3 will be located entirely on land zoned EFU, and no portion of the facility is located within 3,520 feet of properties zoned for residential use or designated in the Umatilla County Comprehensive Plan as residential.

Findings

The Council adopts the findings expressed in FPL's response.

(B) Reasonable efforts shall be made to blend the wind facility's towers with the natural surrounding in order to minimize impacts upon open space and the natural landscape.

FPL's Response

The Council addressed compliance with its Scenic and Aesthetic Values standard in Section V.3(d) of the Final Order for Amendment #2. In addition, Condition 37 of the Second Amended Site Certificate requires compliance with several specific standards "to reduce the visual impact of the facility." The standards include the following:

- "Group the turbines in strings of 2 to 37 turbines, each spaced approximately 250 feet from the next."

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[8] Letter from the Umatilla County Board of Commissioners, dated April 13, 2005.

- "Construct each turbine to be approximately 165 feet tall at the turbine hub and with a total height of approximately 242 feet with the nacelle and blades mounted."
- "Mount nacelles on smooth, hollow steel towers, approximately 14 feet in diameter at the base."
- "Paint all towers west of Butler Grade Road uniformly in a neutral light gray color. Paint towers east of Butler Grade Road a neutral white color to blend in with the color of towers in the Vansycle Project.
- "Not allow any advertising to be used on any part of the facility or on any signs posted at the facility, except that the turbine manufacturer's logo may appear on turbine nacelles."
- "Use only the minimum lighting on its turbine strings required by the Federal Aviation Administration, except:

  * * *

  (ii) Low-impact lighting may be used for occasional nighttime repairs, operations or maintenance at the substation (at other times this lighting would be turned off)."
- "Use only those signs required for facility safety or required by law."

Compliance with Condition 37 will satisfy the requirement of UCDC § 152.616(HHH)(5)(B) to "blend the wind facility's towers with the natural surrounding."

Findings

The Council finds that compliance with Condition 37 satisfies the requirements of UCDC § 152.616(HHH)(5)(B).

(C) Reasonable efforts shall be taken to protect and to preserve existing trees, vegetation, water resources, wildlife habitat or other significant natural resources.

FPL's Response

Sections V.3(b), V.4(a), V.4(b) and V.5 of the Final Order for Amendment #2 specifically address measures to avoid, minimize and mitigate for impact to natural resources on the facility site. Numerous conditions in the Second Amended Site Certificate address erosion control, weed control, minimizing impacts to vegetation, protection of wildlife and habitat through preconstruction surveys, avoidance, and mitigation, and monitoring the success of mitigation measures. These include Conditions 29, 30, 39, 52-56, 60-65, 68-70, 89-94, 111, 112, and 114-118. These conditions comply with the requirement of UCDC § 152.616(HHH)(5)(C) that "reasonable efforts shall be taken" to protect significant natural resources.

Findings

The Council finds that compliance with site certificate conditions will ensure that "reasonable efforts" are taken "to protect and to preserve existing trees, vegetation, water resources, wildlife habitat or other significant natural resources" as required by UCDC § 152.616(HHH)(5)(C).

(D) The turbine towers shall be designed and constructed to discourage bird nesting and wildlife attraction.

FPL's Response

Pursuant to Condition 70(c) of the Second Amended Site Certificate, the certificate holder is required to use monopole design for all turbine and permanent meteorological towers.

Monopole design minimizes the potential for the turbine towers to provide nesting, perching or shelter locations that may attract birds or other wildlife. Condition 70(c) ensures compliance with UCDC § 152.616(HHH)(5)(D).

Findings

The Council adopts the findings expressed in FPL's response.

(E) The turbine towers shall be of a size and design to help reduce noise or other detrimental effects.

FPL's Response

In Section VI.1(a) of the Final Order for Amendment #2, the Council found that Stateline 3 complied with the Oregon Department of Environmental Quality (DEQ) noise regulations in effect at that time. As discussed in the body of the Request for Amendment #3, the Environmental Quality Commission adopted new noise regulations for proposed and operating wind energy facilities; those new regulations took effect on June 11, 2004. Section 1.6.1 of this amendment request explains how Stateline 3 can satisfy those regulations.

The turbine towers are also designed to reduce other potentially detrimental effects. Specifically, Condition 103 of the Second Amended Site Certificate requires that the turbines, towers and pads be constructed of fire retardant material, and that the turbines include built-in fire prevention measures.

The turbine towers, as proposed and subject to the conditions of the Site Certificate, comply with UCDC § 152.616(HHH)(5)(E).

Findings

Analysis of compliance of the facility with the noise control regulations in OAR 340-035-0035 is discussed below at page 35. Based on the findings in that discussion, the Council finds that the facility complies with the requirement in UCDC § 152.616(HHH)(5)(E) that the turbine towers "be of a size and design to help reduce noise." The Council adopts the findings expressed in FPL's response regarding reduction of "other detrimental effects."

(F) Private access roads shall be gated to protect the facility and property owners from illegal or unwarranted trespass, and illegal dumping and hunting.

FPL's Response

Condition (35)(a) of the Second Amended Site Certificate requires that the certificate holder maintain "fences and access gates around dangerous equipment or portions of the site as feasible." Condition (38) provides: "To restrict public access to turbine towers, the certificate holder shall install locked access doors accessible only to authorized project staff." For Stateline 3, any new access roads from County roads will be gated, provided that the property owner agrees to placement of a gate.

Findings

The Department asked Umatilla County Planning Director Tamra Mabbott to comment on whether UCDC § 152.616(HHH)(5)(F) would require construction of a gate on a private access road despite the possible objection of the landowner. Mabbott responded by

stating that the landowner could request a waiver of the requirement. Based on advice of County Counsel, Mabbott suggested the following revision to site certificate Condition 38:[9]

> (38) To restrict public access to turbine towers, the certificate holder shall install locked access doors accessible only to authorized project staff. For Stateline 3, any new access roads from county roads will be gated, unless the property owner requests that the requirement to place a gate be waived.

The Department recommended that the Council revise Condition 35, rather than Condition 38, because the latter condition addresses access to the interior of turbine towers, and Condition 35 specifically addresses access gates to the site. The Council adopts the following revisions to Condition 35 (see page 46):

> (35) The certificate holder shall take steps to protect the facility and property from unauthorized access and to reduce the risk of accidental injury during construction and operations ~~would be minimized~~ by (App U-25, 26):
> (a) Maintaining access gates on private access roads to Stateline 3 facilities in accordance with Umatilla County Development Code § 152.616(HHH)(5)(e), unless Umatilla County has allowed a waiver upon a request by the landowner, and otherwise ~~M~~maintaining fencing and access gates around dangerous equipment or portions of the site as feasible
>
> * * *

The revision to the introductory sentence of Condition 35 includes protection of the facility and property from unauthorized access as part of the basis for the condition. Guarding against unauthorized access is the object of the County standard in UCDC § 152.616(HHH)(5)(F). The deletion of the phrase, "would be minimized," corrects a typographical error. The new text in subparagraph (a) incorporates Umatilla County's recommended language and clarifies that the waiver would need to be "allowed" before it could effectively relieve the certificate holder and the property owner from the requirement of gated access. With these revisions, the Council finds that compliance with Condition 35 would satisfy the requirements of UCDC § 152.616(HHH)(5)(F).

> *(G) Where practicable the electrical cable collector system shall be installed underground, at a minimum depth of 3 feet; elsewhere the cable collector system shall be installed to prevent adverse impacts on agriculture operations.*

FPL's Response

As described in Section IV of the Final Order for Amendment #2, Stateline 3 would include a collector system consisting of both underground and overhead 34.5-kV electric cables. Stateline 3 would include about 30.5 miles of new underground cables, which would be buried directly in the soil approximately 3-4 feet below ground surface. Condition 62 of the Second Amended Site Certificate requires that underground electrical and communications cables be placed a minimum of 3 feet below grade. Stateline 3 would include about 17 miles of aboveground collector cables. As explained in the Final Order for Amendment #2, the collector system approved for Stateline 3 includes both northerly and southerly aboveground 34.5-kV segments from proposed strings BG-A, BG-B and BG-C to allow for flexibility in construction (see Final Order, fn 8).

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[9] Personal conversation and e-mail from Tamra Mabbott, Umatilla County Planning Director, dated May 17, 2005, regarding the Stateline 3 amendment.

Condition 113(b) of the Second Amended Site Certificate requires that 34.5-kV aboveground collector lines be attached to "single-pole wood structures that are typically 42 feet high and with minimum design ground clearance of 25 feet to the lowest conductor." The use of single-pole structures will minimize impacts to agricultural operations, and the minimum design ground clearance of 25 feet will prevent the aboveground collector cables from interfering with the use of farm equipment on the facility site.

Findings

In the Final Order on Amendment #2, the Council approved the Stateline 3 facilities, including 30.5 miles of underground collector lines and 17 miles of aboveground collector lines. Condition 62 requires that all underground lines be installed at a minimum depth of three feet below grade. During the review of the request for Amendment #2, the Department was concerned about the use of aboveground collector line. In the request for Amendment #2, FPL explained why it was not practicable to eliminate all aboveground collector lines: "because operational experience from Stateline 1 has shown that unanticipated design parameters in certain locations have resulted in a reduction in carrying capacity for individual underground cables, some of these collectors will be aboveground to allow for increased carrying capacity."[10] In answer to the Department's request for additional information, FPL assured the Department that the cumulative length of aboveground lines had been reduced as much as possible. Condition 52 requires the use of underground lines except where limitations in carrying capacity of underground lines make the use of overhead collector lines unavoidable.

Where underground collector lines cannot be used, the aboveground lines would be designed "to prevent adverse impacts on agriculture operations." Condition 113 requires aboveground lines to be installed on single-pole wood structures that are typically 42 feet high and to be installed with minimum design ground clearance of 25 feet to the lowest conductor. Compliance with this condition will avoid adverse impacts to agricultural operations. In addition, Condition 40 requires the certificate holder to make reasonable efforts not to disturb the farming and ranching activities on lands adjacent to the facility.

The Council finds that the certificate holder would use underground collector lines to the extent practicable and would install such lines at a minimum depth of 3 feet below grade. The Council finds that the aboveground collector system would be installed "to prevent adverse impacts on agriculture operations."

> *(H) Required permanent maintenance/operations buildings shall be located off-site in one of Umatilla County's appropriately zoned areas, except that such a building may be constructed on-site if (1) the building is designed and constructed generally consistent with the character of similar buildings used by commercial farmers or ranchers, and (2) the building will be removed or converted to farm use upon decommissioning of the Wind Power Generation Facility consistent with the provisions of §152.616(HHH)(7).*

FPL's Response

An operation and maintenance building was approved as part of Stateline 1 but has not been constructed. It would be a satellite to the primary O&M facility located in Washington, and

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[10] *Revised Application to Amend Site Certificate, Amendment 2*, p.6.

would be located along Butler Grade Road south of Gardena and just south of the state line. In order to ensure that the satellite O&M building, if constructed, complies with UCDC § 152.616(HHH)(5)(H), the certificate holder is proposing to revise Condition (37) to add a requirement that the satellite O&M building be designed and constructed to be generally consistent with the character of similar buildings used by commercial farmers or ranchers, and that it be removed or converted to farm use upon retirement of the facility.

Findings

The Council finds that the facility would comply with the requirements of with UCDC § 152.616(HHH)(5)(H), subject to the amendment to Condition 37 proposed by FPL. The Council finds that a cross-reference to Condition 98 should be added to the proposed condition language (see page 46). This clarifies that retirement of the facility would be subject to a retirement plan approved by the Council and that the disposition of any structure would be subject to Council review and public comment at that time.

(I) A Wind Power Generation Facility shall comply with the Specific Safety Standards for Wind Facilities delineated in OAR 345-024-0010 (as adopted at time of application)."

FPL's Response

In Section V.3(f) of the Final Order for Amendment #2, the Council found that Stateline 3 complies with the requirements of OAR 345-024-0010. The certificate holder is not proposing any changes in the location, design or operation of Stateline 3. In addition, the standards in OAR 345-024-0010 have not changed since the Council made those findings. Therefore, the Council's findings in the Final Order for Amendment #2 establish compliance with UCDC § 152.616(HHH)(5)(I).

Findings

The Council adopts the findings expressed in FPL's response.

(6) To the extent feasible, the county will accept information presented by an application for an EFSC proceeding in the form and on the schedule required by EFSC.

FPL's Response

This Attachment 3 provides the land use analysis required both by the Council and Umatilla County.

Findings

The Council finds that FPL's request for Amendment #3 has provided information regarding compliance with the Umatilla County ordinance by "an application for an EFSC proceeding in the form and on the schedule required by EFSC."

(7) The applicant's dismantling of uncompleted construction and/or decommissioning plan for the Wind Power Generation Facility shall include the following information:

(A) A plan for dismantling and/or decommissioning that provides for completion of dismantling or decommissioning of the facility without significant delay and protects public health, safety and the environment in compliance with the restoration requirements of this section.

(B) A description of actions the facility owner proposes to take to restore the site to a useful, non-hazardous condition, including options for post-dismantle or decommission land use, information on how impacts on fish, wildlife and the environment would be minimized during the dismantling or decommissioning process, and measures to protect the public against risk or danger resulting from post-decommissioning site conditions in compliance with the requirements of this section.

(C) A current detailed cost estimate, a comparison of that estimate with present funds set-aside for dismantling or decommissioning, and a plan for assuring the availability of adequate funds for completion of dismantling or decommissioning. The cost estimate will be reviewed and be updated by the facility owner/operator o a 5 year basis.

(D) Restoration of the site shall consist of the following:

(1) Dismantle turbines, towers, pad-mounted transformers, meteorological towers and related aboveground equipment. All concrete turbine pads shall be removed to a depth of at least three feet below the surface grade.

(2) The underground collection and communication cables need not be removed if at a depth of three feet or greater. These cables at a depth of three feet or greater can be abandoned in pace if they are deemed not a hazard or interfering with agricultural use or other consistent resource uses of the land.

(3) Gravel shall be removed from areas surrounding turbine pads.

(4) Access roads shall be removed by removing gravel and restoring the surface grade and soil.

(5) After removal of the structures and roads, the area shall be graded as close as reasonably possible to its original contours and the soils shall be restore to a condition compatible with farm uses or consistent with other resource uses. Re-vegetation shall include planting by applicant of native plant seed mixes, planting by applicant of plant species suited to the area, or planting by landowner of agricultural crops, as appropriate, and shall be consistent with the weed control plan approved by Umatilla County.

(6) Roads, cleared pads, fences, gates, and improvements may be left in pace if a letter form the land owner is submitted to Umatilla County indicating said land owner will be responsible for, and will maintain said roads and/or facilities for farm or other purposes as permitted under applicable zoning.

(E) The applicant (facility owner/operator) shall submit to Umatilla County a bond or letter of credit acceptable to the County, in the amount of the decommissioning fund naming Umatilla county and the landowner as beneficiary or payee.

(1) The calculation of present year dollars shall be made using the U.S. Gross Domestic Product Implicit Price Deflator as published by the U.S. Department of commerce, Bureau of Economic Analysis, or any successor agency (the "Index"). The amount of the bond or letter of credit account shall be increased at such time

when the cumulative percentage increase in the Index exceeds 10 percent from the last change, and then the amount shall be increased by the cumulative percentage increase. If at any time the Index is no longer published, Umatilla County and the applicant shall select a comparable calculation of present year dollars. The amount of the bond or letter of credit account shall be pro-rated within the year to the date of decommissioning.

(2) The decommissioning fund shall not be subject to revocation or reduction before decommissioning of the Wind Power Generation Facility.

(3) The facility owner/operator shall describe the status of the decommissioning fund in the annual report submitted to the Umatilla County.

(F) If any disputes arise between Umatilla County and the landowner on the expenditure of any proceeds from the bond or the letter of credit, either party may request non-binding arbitration. Each party shall appoint an arbitrator, with the two arbitrators choosing a third. The arbitration shall proceed according to the Oregon statutes governing arbitration. The cost of the arbitration (excluding attorney fees) shall be shared equally by the parties.

(G) For projects sited by EFSC, compliance with EFSC's financial assurance and decommissioning standards shall be deemed to be in compliance with the dismantling and decommissioning requirements of this Section 152.616 (HHH)(7).

FPL's Response

As provided in UCDC § 152.616(HHH)(7)(G), compliance with the Council's financial assurance and decommissioning standards "shall be deemed to be … compliance with the dismantling and decommissioning standards of Section 152.616(HHH)(7). In Section V.2.b of the Final Order for Amendment #2, the Council found that Stateline 3, with conditions imposed by the Council, would comply with the Council's retirement and financial assurance standard. The Council's standard has not changed and the certificate holder is not proposing any changes to the facility that will affect compliance with the retirement and financial assurance standard. Therefore, the requirements of UCDC § 152.616(HHH)(7) are satisfied through compliance with the Council's standard.

Findings

The Council adopts the findings expressed in FPL's response.

(8) A bond or letter of credit shall be established for the dismantling of uncompleted construction and/or decommissioning of the facility. (See § 152.616(HHH)(7)) For projects being sited by the State of Oregon's Energy Facility Siting Council (EFSC), the bond or letter of credit required by EFSC will be deemed to meet this requirement.

FPL's Response

OAR 345-027-0020(8) requires, as a mandatory site certificate condition, that such a bond or letter of credit be provided prior to beginning construction of the facility. Condition 109 of the Second Amended Site Certificate establishes this requirement for Stateline 3 and thereby satisfies the requirement of UCDC § 152.616(HHH)(8).

Findings

The Council adopts the findings expressed in FPL's response.

(9) The actual latitude and longitude location or Stateplane NAD 83(91) coordinates of each turbine tower, connecting lines, and transmission lines, shall be provided to Umatilla County once commercial electrical production begins.

FPL's Response

Condition 84 of the Seconded [sic] Amended Site Certificate requires that prior to beginning operation, the certificate holder must provide to both the Office of Energy and the Umatilla County Planning Department "legal descriptions" of "the actual location of each turbine and all connecting lines." As stated in Section VII of the Second Amended Site Certificate, most conditions listed in Sections IV, V and VI (including Condition 84) apply to Stateline 3. "Legal description" is defined in Condition 84 as "a description by reference to a map and geographic information system (GIS) data that clearly and specifically identifies the physical location of all parts of the facility." Compliance with Condition 84 satisfies the requirement of UCDC § 152.616(HHH)(9).

Findings

The Council adopts the findings expressed in FPL's response.

(10) A summary of as built changes in the facility from the original plan, if any, shall be provided by the owner/operator.

FPL's Response

As discussed with respect to UCDC § 152.616(HHH)(9), Condition (84) of the Second Amended Site Certificate requires that prior to beginning operation, the certificate holder must provide to both the Office of Energy and the Umatilla County Planning Department legal descriptions of the actual locations of each turbine and all connecting lines. In addition, the annual report required by Condition (8) includes a "summary of changes to the facility that the certificate holder has determined do not require a site certificate amendment in accordance with OAR 345-027-0050." These site certificate conditions ensure that changes in the facility will be reported, satisfying UCDC § 152.616(HHH)(10).

Findings

The Council adopts the findings expressed in FPL's response.

(11)(A) The Wind Power Generation Facility requirements shall be facility specific, but can be amended as long as the facility does not exceed the boundaries of the Umatilla County conditional use permit where the original facility was constructed.

FPL's Response

The certificate holder is not proposing to expand the facility beyond the location approved in the Second Amended Site Certificate.

Findings

The Council adopts the findings expressed in FPL's response.

(B) An amendment to the conditional use permit shall be required if proposed facility changes would: (1) Increase the land area taken out of agricultural production by an additional 20 acres or more; (2) Increase the land area taken out of agricultural production sufficiently to trigger taking a Goal 3 exception; (3) Require an expansion of the established facility boundaries; (4) Increase the number of towers; (5) Increase generator output by more than 25 percent relative

to the generation capacity authorized by the initial permit due to the repowering or upgrading of power generation capacity. Notification by the facility owner/operator to the Umatilla County Planning Department of changes not requiring an amendment are encouraged, but not required. An amendment to a Site Certificate issued by EFSC will be governed by the rules for amendments established by EFSC.

FPL's Response

As provided in this subsection of the UCDC, this amendment request is under the jurisdiction of the Council and therefore is "governed by the rules for amendments established by EFSC."

Findings

The Council finds that UCDC § 152.616(HHH) (11)(B) provides that amendment of the site certificate is "governed by the rules for amendments established by EFSC." In addition, the ordinance language establishes when an amendment of the County's conditional use permit would be required. FPL's request for Amendment #3 does not meet any of the criteria listed in the ordinance, and so it does not appear that amendment of the conditional use permit would be necessary.

(12) Within 120 days after the end of each calendar year the facility owner/operator shall provide Umatilla County an annual report including the following information:

(A) Energy production by month and year.

(B) Non-proprietary information about wind conditions. (e.g. monthly averages, high wind events, bursts

(C) A summary of changes to the facility that do not require facility requirement amendments.

(D) A summary of the avian monitoring program – bird injuries, casualties, positive impacts on area wildlife and any recommendations for changes in the monitoring program.

(E) Employment impacts to the community and Umatilla County during and after construction.

(F) Success or failures of weed control practices.

(G) Status of the decommissioning fund.

(H) Summary comments – any problems with the projects, any adjustments needed, or any suggestions.

The annual report requirement may be discontinued or required at a less frequent schedule by the County. The reporting requirement and/or reporting schedule shall be reviewed, and possibly altered, at the request of the facility owner/operator. For facilities under EFSC jurisdiction and for which an annual report is required, the annual report to EFSC satisfies this requirement."

FPL's Response

Condition 8 of the Second Amended Site Certificate requires that the certificate holder submit an annual report to the Council. Condition 8 applies to Stateline 3, as provided in Section VII of the Second Amended Site Certificate. The annual report required under Condition 8 satisfies the annual reporting requirement of UCDC § 152.616(HHH)(12).

Findings

The Council adopts the findings expressed in FPL's response.

Based on the foregoing discussion and the described amendments to site certificate conditions 35 and 37, the Council finds that the facility would comply with the applicable substantive criteria that are found in UCDC § 152.616(HHH)(5)-(12). In addition, the Council finds that the modification of Condition 105 as adopted by this order would not affect any land use findings required by Council standards. The Council finds that the Stateline facility would comply with the applicable substantive criteria of Umatilla County and all LCDC administrative rules and goals and any land use statutes directly applicable to the facility under ORS 197.646(3) if the Council approves the proposed extension of the construction deadlines for Stateline 3.

Conclusions of Law

Based on the findings stated above, the Council concludes that Stateline would comply with the Council's Land Use Standard if Amendment #3 were approved. In addition, the Council adopts amendments to Conditions 35 and 37 as described herein.

(b) Soil Protection

OAR 345-022-0022

To issue a site certificate, the Council must find that the design, construction, operation and retirement of the facility, taking into account mitigation, are not likely to result in a significant adverse impact to soils including, but not limited to, erosion and chemical factors such as salt deposition from cooling towers, land application of liquid effluent, and chemical spills.

Findings of Fact

In the Final Order on Amendment #2, the Council found that the design, construction and operation of the proposed Stateline 3 facilities, taking into account mitigation and subject to the conditions stated in the order, would not likely cause a significant adverse impact to soils. Conditions 29, 32, 60, 61, 62, 68, 92 and 98 relate to the Council's findings on soil protection.

Since the time of the Council's Final Order on Amendment #2, the Council amended OAR 345-022-0022 by adding the reference to "retirement." This change ensures consideration of potential soil impacts during retirement and the need to mitigate any such impacts. In the Final Order on Amendment #2, the Council addressed potential impacts on soils in its findings on the Retirement and Financial Assurance Standard. The Council found that retirement would include "restoring the soil to a condition compatible with farm use or consistent with other resource uses such as wildlife habitat or land conservation." The Council found that soil contamination was unlikely. Retirement would include removal of structures to

a depth of three feet below grade, restoring soils and re-grading the area "as close as reasonably possible to its original contours." The Council found that retirement of access roads would involve "removing gravel and restoring the surface grade and soil to a condition useful for either agriculture or wildlife habitat." Retirement of aboveground transmission and collector lines would include removal of the supporting poles, refilling the holes and backfilling with topsoil. Before restoring the site, the certificate holder would be required to submit a final retirement plan for Council approval. The retirement plan would describe the activities necessary to retire the site, including the protection of soils.

In the amendment request, FPL does not propose any change in the location or facilities for Stateline. The Council finds that the design, construction, operation and retirement of the Stateline facility, taking into account mitigation, would not likely result in a significant adverse impact to soils. In addition, the Council finds that modification of Condition 105 as adopted by this order would not affect any soil protection findings required by Council standards.

Conclusions of Law

The Council concludes that Stateline would comply with the Council's Soil Protection Standard if Amendment #3 were approved. In addition, the Council concludes that no new conditions are required.

(c) Protected Areas

OAR 345-022-0040

(1) Except as provided in sections (2) and (3), the Council shall not issue a site certificate for a proposed facility located in the areas listed below. To issue a site certificate for a proposed facility located outside the areas listed below, the Council must find that, taking into account mitigation, the design, construction and operation of the facility are not likely to result in significant adverse impact to the areas listed below. Cross-references in this rule to federal or state statutes or regulations are to the version of the statutes or regulations in effect as of August 28, 2003:

(a) National parks, including but not limited to Crater Lake National Park and Fort Clatsop National Memorial;

(b) National monuments, including but not limited to John Day Fossil Bed National Monument, Newberry National Volcanic Monument and Oregon Caves National Monument;

(c) Wilderness areas established pursuant to The Wilderness Act, 16 U.S.C. 1131 et seq. and areas recommended for designation as wilderness areas pursuant to 43 U.S.C. 1782;

(d) National and state wildlife refuges, including but not limited to Ankeny, Bandon Marsh, Baskett Slough, Bear Valley, Cape Meares, Cold Springs, Deer Flat, Hart Mountain, Julia Butler Hansen, Klamath Forest, Lewis and Clark, Lower Klamath, Malheur, McKay Creek, Oregon Islands, Sheldon, Three Arch Rocks, Umatilla, Upper Klamath, and William L. Finley;

(e) National coordination areas, including but not limited to Government Island, Ochoco and Summer Lake;

(f) National and state fish hatcheries, including but not limited to Eagle Creek and Warm Springs;

(g) National recreation and scenic areas, including but not limited to Oregon Dunes National Recreation Area, Hell's Canyon National Recreation Area, and the Oregon Cascades Recreation Area, and Columbia River Gorge National Scenic Area;

(h) State parks and waysides as listed by the Oregon Department of Parks and Recreation and the Willamette River Greenway;

(i) State natural heritage areas listed in the Oregon Register of Natural Heritage Areas pursuant to ORS 273.581;

(j) State estuarine sanctuaries, including but not limited to South Slough Estuarine Sanctuary, OAR Chapter 142;

(k) Scenic waterways designated pursuant to ORS 390.826, wild or scenic rivers designated pursuant to 16 U.S.C. 1271 et seq., and those waterways and rivers listed as potentials for designation;

(L) Experimental areas established by the Rangeland Resources Program, College of Agriculture, Oregon State University: the Prineville site, the Burns (Squaw Butte) site, the Starkey site and the Union site;

(m) Agricultural experimental stations established by the College of Agriculture, Oregon State University, including but not limited to:

Coastal Oregon Marine Experiment Station, Astoria
Mid-Columbia Agriculture Research and Extension Center, Hood River
Agriculture Research and Extension Center, Hermiston
Columbia Basin Agriculture Research Center, Pendleton
Columbia Basin Agriculture Research Center, Moro
North Willamette Research and Extension Center, Aurora
East Oregon Agriculture Research Center, Union
Malheur Experiment Station, Ontario
Eastern Oregon Agriculture Research Center, Burns
Eastern Oregon Agriculture Research Center, Squaw Butte
Central Oregon Experiment Station, Madras
Central Oregon Experiment Station, Powell Butte
Central Oregon Experiment Station, Redmond
Central Station, Corvallis
Coastal Oregon Marine Experiment Station, Newport
Southern Oregon Experiment Station, Medford
Klamath Experiment Station, Klamath Falls;

(n) Research forests established by the College of Forestry, Oregon State University, including but not limited to McDonald Forest, Paul M. Dunn Forest, the Blodgett Tract in Columbia County, the Spaulding Tract in the Mary's Peak area and the Marchel Tract;

(o) Bureau of Land Management areas of critical environmental concern, outstanding natural areas and research natural areas;

(p) State wildlife areas and management areas identified in OAR chapter 635, Division 8.

* * *

Findings of Fact

In the Final Order on Amendment #2, the Council found that the Stateline 3 facilities would not be located in any protected area as defined by OAR 345-022-0040(1) and that the design, construction and operation of Stateline 3 would not be likely to result in significant adverse impact to any protected area, taking into account mitigation and subject to the conditions stated in the order. The Council found that indirect effects of noise, traffic and visual impact from Stateline 3 would not have any significant impact on protected areas.

Since the time of the Council's Final Order on Amendment #2, the Council amended OAR 345-022-0040 by changing the cross-reference date at the end of paragraph (1). Under the former rule, the cross-reference was to "the version of the statutes or regulations in effect as of March 29, 2002." The current rule updates the cross-reference to August 28, 2003. The Department has no information regarding the establishment of any new protected areas under the statutes and regulations referenced in the rule between March 29, 2002 and August 28, 2003. Research by FPL's legal counsel concluded that no new protected areas had been established within that time period within the analysis area.[11]

Because Amendment #3 would not involve a change in the size or location of facility components, the Council finds that there has been no change of circumstances that would affect the Council's earlier findings regarding Stateline 3. Further, the finds that the modification of Condition 105 as adopted by this order would not affect any protected area findings required by Council standards.

Conclusions of Law

The Council concludes that Stateline would comply with the Council's Protected Areas Standard if Amendment #3 were approved. In addition, the Council concludes that no new conditions are required.

(d) Scenic and Aesthetic Values

OAR 345-022-0080

(1) Except for facilities described in section (2), to issue a site certificate, the Council must find that the design, construction, operation and retirement of the facility, taking into account mitigation, are not likely to result in significant adverse impact to scenic and aesthetic values identified as significant or important in applicable federal land management plans or in local land use plans in the analysis area described in the project order.

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[11] Memorandum from Richard Allan, attorney for FPL, May 19, 2005.

Findings of Fact

In the Final Order on Amendment #2, the Council found that the design, construction, operation and retirement of the proposed Stateline 3 facilities would not be likely to result in significant adverse impact to scenic and aesthetic values identified as significant or important in applicable federal land management plans or in the local land use plans in the analysis area, taking into account mitigation and subject to the conditions stated in the order. Because Amendment #3 would not involve any change in the size or location of facility components, the Council finds that there has been no change of circumstances that would affect the Council's earlier findings regarding Stateline 3. Further, the Council finds that the modification of Condition 105 as adopted by this order would not affect any findings required by Council standards regarding scenic or aesthetic values.

Conclusions of Law

The Council concludes that Stateline would comply with the Council's Scenic and Aesthetic Values Standard if Amendment #3 were approved. In addition, the Council concludes that no new conditions are required.

(e) Recreation

OAR 345-022-0100

(1) Except for facilities described in section (2), to issue a site certificate, the Council must find that the design, construction and operation of a facility, taking into account mitigation, are not likely to result in a significant adverse impact to important recreational opportunities in the analysis area as described in the project order. The Council shall consider the following factors in judging the importance of a recreational opportunity:

(a) Any special designation or management of the location;

(b) The degree of demand;

(c) Outstanding or unusual qualities;

(d) Availability or rareness;

(e) Irreplaceability or irretrievability of the opportunity.

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Findings of Fact

In the Final Order on Amendment #2, the Council found that the design, construction, operation and retirement of the proposed Stateline 3 facilities would not be likely to result in significant adverse impact to important recreational opportunities in the analysis area, taking into account mitigation and subject to the conditions stated in the order. Because Amendment #3 would not involve any change in the size, location or operation of the facility, the Council finds that there has been no change of circumstances that would affect the Council's earlier findings regarding the impacts of Stateline 3 on recreational opportunities. Further, the Council finds that the modification of Condition 105 as adopted by this order would not affect any findings required by Council standards regarding recreation.

Conclusions of Law

The Council concludes that Stateline would comply with the Council's Recreation Standard if Amendment #3 were approved. In addition, the Council concludes that no new conditions are required.

(f) Public Health and Safety Standards for Wind Energy Facilities

OAR 345-024-0010

* * *

(2) To issue a site certificate for a proposed wind energy facility, the Council must find that the applicant:

(a) Can design, construct and operate the facility to exclude members of the public from close proximity to the turbine blades and electrical equipment;

(b) Can design, construct and operate the facility to preclude structural failure of the tower or blades that could endanger the public safety and to have adequate safety devices and testing procedures designed to warn of impending failure and to minimize the consequences of such failure.

Findings of Fact

In the Final Order on Amendment #2, the Council found the certificate holder could design, construct and operate the proposed Stateline 3 facilities to exclude members of the public from close proximity to the turbine blades and electrical equipment, to preclude structural failure of the tower or blades that could endanger the public safety and to have adequate safety devices and testing procedures. The Council included conditions 36, 38, 95, 103 and 113 in the site certificate to protect public safety. Because Amendment #3 would not involve any change in the design, size or location of facility components or any change in the conditions relating to public safety, the Council finds that there has been no change of circumstances that would affect the Council's earlier findings regarding Stateline 3. Further, the Council finds that the modification of Condition 105 as adopted by this order would not affect any findings required by OAR 345-024-0010.

Conclusions of Law

Council KHG

The concludes that Stateline would comply with the Council's Public Health and Safety Standards for Wind Energy Facilities if Amendment #3 were approved. In addition, the Council concludes that no new conditions are required.

(g) Siting Standards for Wind Energy Facilities

OAR 345-024-0015

To issue a site certificate for a proposed wind energy facility, the Council must find that the applicant:

(1) Can design and construct the facility to reduce visual impact by methods including, but not limited to:

(a) Not using the facility for placement of advertising, except that advertising does not include the manufacturer's label or signs required by law;

(b) Using the minimum lighting necessary for safety and security purposes and using techniques to prevent casting glare from the site, except as otherwise required by the Federal Aviation Administration or the Oregon Department of Transportation, Transportation Development Branch, Aeronautics Section; and

(c) Using only those signs necessary for facility operation and safety and signs required by law;

(2) Can design and construct the facility to restrict public access by the following methods:

(a) For a horizontal-axis wind energy facility with tubular towers, using locked access sufficient to prevent unauthorized entry to the interior of the tower;

(b) For a horizontal-axis wind energy facility with lattice-type towers:

(A) Removal of wind facility tower climbing fixtures to 12 feet from the ground;

(B) Installation of a locking, anti-climb device on the wind facility tower; or

(C) Installation of a protective fence at least 6 feet high with a locking gate; or

(c) For a vertical-axis wind energy facility, installation of a protective fence at least 6 feet high with a locking gate;

(3) Can design and construct facility to reduce cumulative adverse environmental impacts in the vicinity to the extent practicable by measures including, but not limited to, the following, where applicable:

(a) Using existing roads to provide access to the facility site, or if new roads are needed, minimizing the amount of land used for new roads and locating them to reduce adverse environmental impacts;

(b) Combining transmission lines and points of connection to local distribution lines;

(c) Connecting the facility to existing substations, or if new substations are needed, minimizing the number of new substations; and

(d) Avoiding, to the extent practicable, the creation of artificial habitat for raptors or raptor prey. Artificial habitat may include, but is not limited to:

(A) Above-ground portions of foundations surrounded by soil where weeds can accumulate;

(B) Electrical equipment boxes on or near the ground that can provide shelter and warmth; and

(C) Horizontal perching opportunities on the towers or related structures.

Findings of Fact

In the Final Order on Amendment #2, the Council found that the certificate holder could design and construct the Stateline 3 facilities to reduce visual impact, to restrict public access and to reduce cumulative adverse environmental impacts in the vicinity to the extent practicable. The Council included conditions 30, 37, 38, 44, 60, 61, 64, 65, 103, 114 and 115

in the site certificate to ensure compliance with the Siting Standards for Wind Energy facilities. Because Amendment #3 would not involve any change in the design, size or location of facility components, the Council finds that there has been no change of circumstances that would affect the Council's earlier findings regarding Stateline 3. Further, the Council finds that the modification of Condition 105 as adopted by this order would not affect any findings required by OAR 345-024-0015.

Conclusions of Law

The Council concludes that Stateline would comply with the Council's Siting Standards for Wind Energy Facilities if Amendment #3 were approved. In addition, the Council concludes that no new conditions are required.

(h) Siting Standards for Transmission Lines

OAR 345-024-0090

To issue a site certificate for a facility that includes any high voltage transmission line under Council jurisdiction, the Council must find that the applicant:

(1) Can design, construct and operate the proposed transmission line so that alternating current electric fields do not exceed 9 kV per meter at one meter above the ground surface in areas accessible to the public;

(2) Can design, construct and operate the proposed transmission line so that induced currents resulting from the transmission line and related or supporting facilities will be as low as reasonably achievable.

Findings of Fact

The proposed Stateline 3 facility would include about 30.5 miles of underground 34.5-kV transmission lines (collector lines) and 17 miles of aboveground 34.5-kV collector lines. In addition, the facility would include an 8.5-mile aboveground 115-kV or 230-kV transmission line from a proposed new substation to the Washington border. The site certificate requires the certificate holder to design and construct transmission lines to meet the standards for electric fields and induced currents that are incorporated in OAR 345-024-0090 and to design transmission lines in compliance with applicable codes and standards after consultation with the Oregon Public Utility Commission. Because Amendment #3 would not involve any change in the design, size or location of transmission lines, the Council finds that there has been no change of circumstances that would affect the Council's earlier findings regarding Stateline 3. Further, the Council finds that the modification of Condition 105 as adopted by this order would not affect any findings required by OAR 345-024-0090.

Conclusions of Law

The Council concludes that Stateline would comply with the Council's Siting Standards for Transmission Lines if Amendment #3 were approved. In addition, the Council concludes that no new conditions are required.

4. Standards to Protect Wildlife

(a) Threatened and Endangered Species

OAR 345-022-0070

To issue a site certificate, the Council, after consultation with appropriate state agencies, must find that:

(1) For plant species that the Oregon Department of Agriculture has listed as threatened or endangered under ORS 564.105(2), the design, construction, operation and retirement of the proposed facility, taking into account mitigation:

(a) Are consistent with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3); or

(b) If the Oregon Department of Agriculture has not adopted a protection and conservation program, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species; and

(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed as threatened or endangered under ORS 496.172(2), the design, construction, operation and retirement of the proposed facility, taking into account mitigation, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species.

Findings of Fact

In the Final Order on Amendment #2, the Council found that there are no protection and conservation programs adopted under ORS 564.105(3) for threatened or endangered plant species in the Stateline 3 area. The Council found that the construction and operation of Stateline 3 is not expected to adversely affect any Oregon endangered or threatened plant species.

The Council found, based on the analysis done for Stateline 1, that there are three threatened or endangered wildlife species that might be affected by the Stateline facilities. The *Washington ground squirrel* (WGS) is a state endangered and federal candidate species that occupies shrub-steppe habitat. Parts of the proposed Stateline 3 site contain grassland habitat suitable for the WGS. Construction and operation of the proposed Stateline 3 facilities would directly affect an estimated 12.3 acres of known WSG habitat. In the Second Amended Site Certificate, the Council adopted Condition 107, which requires FPL to implement the *Resource Impact Avoidance and Mitigation Plan*[12] to reduce and mitigate the impacts to WGS habitat. Based on the small area of direct impact on WGS habitat, the existence of the WGS in other suitable habitat throughout the Stateline project area and the measures required by Condition 107, the Council found that the construction, operation and retirement of the proposed Stateline 3 facilities are not likely to cause a significant reduction in the likelihood of survival or recovery of the WGS.

The *bald eagle* is listed as threatened by both state and federal wildlife agencies. Bald eagles nest in trees or on cliffs and occasionally forage on small mammals and carrion in

[12] Attachment C to the Final Order on Amendment #2.

upland areas. The Council found that the presence of this species in the Stateline area is extremely rare and therefore that it is unlikely that the construction and operation of the proposed Stateline 3 would have any adverse effect.

The *peregrine falcon* is listed as endangered in Oregon but was recently removed from the federal endangered species list. The Council found that construction and operation of the proposed Stateline 3 facilities are not likely to have an adverse effect on the species, because the nearest known nest site is about six miles from the closest Stateline 3 turbine string and because little prey is available for the falcons in the area near the turbines.

Based on these findings in the Final Order on Amendment #2, the Council found that the design, construction, operation and retirement of the proposed Stateline 3 facilities would not be likely to cause a significant reduction in the likelihood of survival or recovery of any threatened or endangered species listed under Oregon law, taking into account mitigation and subject to the conditions stated in the order. Because Amendment #3 would not involve any change in the design, size or location of the approved Stateline 3 facilities, the Council finds that there has been no change of circumstances that would affect the Council's earlier findings regarding Stateline 3. Further, the Council finds that the modification of Condition 105 as adopted by this order would not affect any findings required by the Threatened and Endangered Species Standard.

Conclusions of Law

The Council concludes that Stateline would comply with the Council's Threatened and Endangered Species Standard if Amendment #3 were approved. In addition, the Council concludes that no new conditions are required.

(b) Fish and Wildlife Habitat

OAR 345-022-0060

To issue a site certificate, the Council must find that the design, construction, operation and retirement of the facility, taking into account mitigation, are consistent with the fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025 in effect as of September 1, 2000.

Findings of Fact

In the Final Order on Amendment #2, the Council made detailed findings on the potential impact of Stateline 3 on wildlife habitat.[13] Many of the site certificate conditions require mitigation of direct and indirect habitat impacts.[14] In summary, the Council found that the design, construction, operation and retirement of the proposed Stateline 3 facilities would be consistent with the fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025, taking into account mitigation and subject to the conditions stated in the order, except for the impacts on Category 1 habitat used by the WGS.

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[13] Final Order on Amendment #2, pp. 75-84.

[14] Conditions 7, 8, 14, 52, 63, 65, 68, 82, 89, 90, 91, 93, 94, 98, 101, 104, 112, 114, 115, 116 and 117 relate to protection of wildlife habitat.

Condition 93 requires the certificate holder to conduct post-construction monitoring to evaluate the impacts of the facility on avian and bat species. The monitoring requirements are described in the *Oregon Wildlife Monitoring Plan* (OWMP). Extending the construction deadlines for Stateline 3 would necessitate changes in the monitoring schedules described in the OWMP. Accordingly, the Council adopts revisions to the OWMP as shown in Attachment A.

Because the Council found that Stateline 3 did not comply fully with the Habitat Standard, the Council applied its authority under ORS 469.501(3) to balance the overall public benefits of the facility against the damage to Category 1 habitat. After consideration of all of the factors set out in OAR 345-022-0000(2) as well as the measures to be implemented under the *Resource Impact Avoidance and Mitigation Plan*, the Council found that the overall public benefits outweighed the damage to the resource.

To approve an amendment to extend the construction deadlines, the Council must consider whether the facility complies with all Council standards in effect on the date the Council makes its decision (OAR 345-027-0070(9)). After issuing the Final Order on Amendment #2, the Council amended the balancing rule (OAR 345-022-0000(2)). Accordingly, if there are direct impacts that would result in a loss of Category 1 habitat, the Council must apply the amended balancing rule.

FPL is considering a modification of the design of Stateline 3. That modification could involve changes to the turbine strings proposed to be sited in the area that was classified as Category 1 at the time of the Council's decision on Amendment #2. When its plans for facility modification are completed, FPL will request further amendment of the site certificate to request Council approval of the proposed changes. In the meantime, FPL has proposed no disturbance of the previously identified Category 1 habitat. The Department recommended new Condition 121 that would require FPL to avoid any construction activities affecting that habitat, pending a future site certificate amendment proceeding (see page 48). When the Council considers that future amendment request, the Council would determine the impact of the redesigned facility on Category 1 habitat and, if the Council determines balancing to be appropriate, apply the balancing rule in effect at that time.

In comments submitted on the present amendment request, the Oregon Department of Fish and Wildlife (ODFW) did not object to deferring Council consideration of impacts on Category 1 habitat under the amended balancing rule until a future amendment proceeding. ODFW expressed an interest in reviewing and commenting on such future amendment.

Under the recommended condition, no impact on Category 1 habitat would result from the construction of Stateline 3 facilities. Therefore, the Council finds that approval of an extension of the construction deadlines as requested in Amendment #3 is consistent with the fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025. Further, the Council finds that the modification of Condition 105 as adopted by this order would not affect any findings required by the Fish and Wildlife Habitat Standard.

Conclusions of Law

The Council concludes, subject to new Condition 121, that Stateline would comply with the Council's Fish and Wildlife Habitat Standard if Amendment #3 were approved.

5. Standards Not Applicable to Site Certificate Eligibility

Under ORS 469.501(4)[15], the Council may issue a site certificate without making the findings required by the standards discussed in this section. Nevertheless, the Council may impose site certificate conditions based on the requirements of these standards.

(a) Structural Standard

OAR 345-022-0020

(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that:

(a) The applicant, through appropriate site-specific study, has adequately characterized the site as to seismic zone and expected ground motion and ground failure, taking into account amplification, during the maximum credible and maximum probable seismic events; and

(b) The applicant can design, engineer, and construct the facility to avoid dangers to human safety presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule "seismic hazard" includes ground shaking, landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement, and subsidence;

(c) The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility; and

(d) The applicant can design, engineer and construct the facility to avoid dangers to human safety presented by the hazards identified in subsection (c).

(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

* * *

Proposed Conditions

In the Final Order on Amendment #2, the Council included findings regarding the site-specific characterization of seismic, geologic and soil hazards for Stateline 3. Because Amendment #3 would not involve any change in the design, size or location of Stateline 3 facilities, the Council finds that there has been no change of circumstances that would affect the Council's earlier findings regarding Stateline 3. Further, the Council finds that the

[15] This statute provides that the Council may not impose certain standards "to approve or deny an application for an energy facility producing power from wind." ORS 469.300 defines an "application" as "a request for approval of a particular site or sites for the construction and operation of an energy facility or the construction and operation of an additional energy facility upon a site for which a certificate has already been issued, filed in accordance with the procedures established pursuant to ORS 469.300 to 469.563, 469.590 to 469.619, 469.930 and 469.992." Although ORS 469.501(4) does not explicitly refer to a request for a site certificate amendment, we assume that the Legislature intended it to apply.

modification of Condition 105 as adopted by this order would not affect any findings required by the Structural Standard. In addition, the Council concludes that no new conditions are required.

(b) Historic, Cultural and Archaeological Resources

OAR 345-022-0090

(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that the construction, operation and retirement of the facility, taking into account mitigation, are not likely to result in significant adverse impacts to:

(a) Historic, cultural or archaeological resources that have been listed on, or would likely be listed on the National Register of Historic Places;

(b) For a facility on private land, archaeological objects, as defined in ORS 358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and

(c) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).

(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

* * *

Proposed Conditions

In the Final Order on Amendment #2, the Council made findings regarding potential impacts on cultural resources. The site certificate includes conditions that ensure avoidance of adverse impacts to the identified resources and to resources discovered during construction. Because Amendment #3 would not involve any change in the design, size or location of Stateline 3 facilities, the Council finds that there has been no change of circumstances that would affect the Council's earlier findings regarding Stateline 3. Further, the Council finds that the modification of Condition 105 as adopted by this order would not affect any findings required by the Historic, Cultural and Archaeological Resources Standard. In addition, the Council concludes that no new conditions are required.

(c) Public Services

OAR 345-022-0110

(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that the construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to the ability of public and private providers within the analysis area described in the project order to provide: sewers and sewage treatment, water, storm water drainage, solid waste management, housing, traffic safety, police and fire protection, health care and schools.

(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

* * *

Proposed Conditions

In the Final Order on Amendment #2, the Council made detailed findings on the potential impact of Stateline 3 on public services.[16] Many of the site certificate conditions are related to mitigation or avoidance of adverse impacts on public services.[17] Because Amendment #3 would not involve any change in the design, size or location of Stateline 3 facilities, the Council finds that there has been no change of circumstances that would affect the Council's earlier findings regarding Stateline 3. Further, the Council finds that the modification of Condition 105 as adopted by this order would not affect any findings required by the Public Services Standard. In addition, the Council concludes that no new conditions are required.

(d) Waste Minimization

OAR 345-022-0120

(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that, to the extent reasonably practicable:

(a) The applicant's solid waste and wastewater plans are likely to minimize generation of solid waste and wastewater in the construction, operation, and retirement of the facility, and when solid waste or wastewater is generated, to result in recycling and reuse of such wastes;

(b) The applicant's plans to manage the accumulation, storage, disposal and transportation of waste generated by the construction and operation of the facility are likely to result in minimal adverse impact on surrounding and adjacent areas.

(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

* * *

Proposed Conditions

In the Final Order on Amendment #2, the Council found that the waste generated by construction and operation of Stateline 3 would be similar in type but proportionately greater in volume compared to Stateline 1 and 2. The Council imposed conditions regarding waste minimization and disposal for Stateline 3. Because Amendment #3 would not involve any change in the design, size or location of Stateline 3 facilities, the Council finds that there has

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[16] Final Order on Amendment #2, pp. 95-98.

[17] Conditions 31, 32, 33, 34, 35, 45, 48, 58, 60, 61, 71, 72, 73, 74, 77, 81, 85, 86, 87, 88, 96 and 103 relate to reducing adverse impacts on public services.

been no change of circumstances that would affect the Council's earlier findings regarding Stateline 3. Further, the Council finds that the modification of Condition 105 as adopted by this order would not affect any findings required by the Waste Minimization Standard. In addition, the Council concludes that no new conditions are required.

V. OTHER APPLICABLE REGULATORY REQUIREMENTS: FINDINGS AND CONCLUSIONS

1. Requirements under Council Jurisdiction

Under ORS 469.503(3) and under the Council's General Standard of Review (OAR 345-022-0000, the Council must determine that the proposed facility complies with "all other Oregon statutes and administrative rules identified in the project order, as amended, as applicable to the issuance of a site certificate for the proposed facility." Applicable Oregon statutes and administrative rules that are not otherwise addressed in section IV of this order include the noise control regulations adopted by the Environmental Quality Commission, the Division of State Lands' regulations for disturbance to wetlands, the Water Resources Department's (WRD) regulations for appropriating groundwater and the Council's statutory authority to consider protection of public health and safety.

(a) Noise Control Regulations

Noise control regulations applicable to wind energy facilities are found in OAR 340-035-0035. After the Council issued its Final Order on Amendment #2, the Oregon Environmental Quality Commission amended OAR 340-035-0035, adopting new regulations that apply to wind energy facilities. For the request to extend the construction deadlines, the amendment of OAR 340-035-0035 is a change of circumstances that would affect the Council's previous findings regarding compliance of Stateline 3 with applicable noise regulations. Condition 105 directly addresses compliance with the noise control regulations, and the Council must apply the amended OAR 340-035-0035 in considering the request to modify the condition.

The applicable noise control regulations, as amended, are as follows:

> **OAR 340-035-0035**
>
> **Noise Control Regulations for Industry and Commerce**
>
> *(1) Standards and Regulations:*
> * * *
>
> *(b) New Noise Sources:*
> * * *
>
> *(B) New Sources Located on Previously Unused Site:*
>
> *(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as*

measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with windspeed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

(IV) For purposes of determining whether a proposed wind energy facility would satisfy the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are predicted assuming that all of the proposed wind facility's turbines are operating between cut-in speed and the wind speed corresponding to the maximum sound power level established by IEC 61400-11 (version 2002-12). These predictions must be compared to the highest of either the assumed ambient noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured. The facility complies with the noise ambient background standard if this comparison shows that the increase in noise is not more than 10 dBA over this entire range of wind speeds.

(V) For purposes of determining whether an operating wind energy facility complies with the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are measured when the facility's nearest wind turbine is operating over the entire range of wind speeds between cut-in speed and the windspeed corresponding to the maximum sound

power level and no turbine that could contribute to the noise level is disabled. The facility complies with the noise ambient background standard if the increase in noise over either the assumed ambient noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured, is not more than 10 dBA over this entire range of wind speeds.

(VI) For purposes of determining whether a proposed wind energy facility would satisfy the Table 8 standards, noise levels at the appropriate measurement point are predicted by using the turbine's maximum sound power level following procedures established by IEC 61400-11 (version 2002-12), and assuming that all of the proposed wind facility's turbines are operating at the maximum sound power level.

(VII) For purposes of determining whether an operating wind energy facility satisfies the Table 8 standards, noise generated by the energy facility is measured at the appropriate measurement point when the facility's nearest wind turbine is operating at the windspeed corresponding to the maximum sound power level and no turbine that could contribute to the noise level is disabled.

* * *

Findings of Fact

Request to Extend Construction Deadlines

In the Final Order on Amendment #2, the Council made detailed findings on the potential impact of Stateline 3 on noise sensitive properties.[18] The Council found that the Stateline 3 facility would meet the "Table 8" test.[19] The Council based that finding on the noise levels predicted using CADNA/A, a commercial noise modeling program, assuming that the Stateline 3 wind turbines were operating under conditions of maximum turbine noise. Predicted noise levels did not exceed the hourly L_{50} nighttime noise level of 50 dBA required by Table 8. The analysis addressed three noise sensitive properties in Oregon located closest to the proposed Stateline 3 turbines.

In addition, the Council found that the Stateline 3 facility would meet the "ambient degradation" test.[20] The Council based that finding on a "worst-case" analysis. The Council assumed that the "worst case" would be during low wind speed conditions when the ambient noise level is likely to be the lowest but when there is sufficient wind speed to produce noise from the operation of the wind turbines (the "cut-in" speed). Based on information from FPL, the Council found cut-in speed to be about 9 mph at the turbine hub height (50 meters above ground). The Council applied the ambient degradation test at the three noise sensitive

[18] Final Order on Amendment #2, pp. 99-106.
[19] Compliance under former OAR 340-035-0035(1)(b)(B), then in effect, required that noise levels generated by a noise source not exceed "levels specified in Table 8, as measured at an appropriate measurement point."
[20] Compliance under former OAR 340-035-0035(1)(b)(B), then in effect, required that noise levels generated by a noise source not "increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour."

properties closest to any Stateline 3 turbines. These properties were identified as "M-1," "R-7" and "M-2" in FPL's request for Amendment #2.[21]

At M-1, the ambient background noise includes noise produced by turbines at the Vansycle Ridge Wind Project, which are closer to M-1 than the nearest Stateline 3 turbine would be. Based on FPL's calculations, the Council found that the cumulative noise from Stateline 1, 2 and 3 turbines at the cut-in speed would increase the background noise level at M-1 by less than 1 dBA.

The Council found that operation of the Stateline 3 turbines would not cause any increase in ambient statistical noise levels at M-2 above the predicted noise from Stateline 1 and 2 turbines. In the Final Orders on the Application and on Amendment #1, the Council found that the noise from Stateline 1 and 2 would meet the ambient degradation test at M-2.

For R-7, FPL provided measured data on the ambient background noise, and Department's consultant, Kerrie G. Standlee, P.E., analyzed the FPL data. Based on Standlee's analysis, the Council found that the ambient background noise level at R-7 was 26 dBA when the wind speed at turbine hub-height is at or near the cut-in speed. The Council found that the operation of Stateline 3 would not cause the ambient hourly L_{50} noise level to increase by more than 10 dBA and that, therefore, the ambient degradation test was met.

To approve the request to extend the construction deadlines for Stateline 3, the Council must find that the facility would comply with the noise control regulations currently in effect (quoted above). Under the new noise control regulations, a wind energy facility must still comply with the "Table 8" test, but the method of determining compliance of a "proposed facility" is specified in OAR 340-035-0035(1)(b)(B)(iii)(VI): "noise levels at the appropriate measurement point are predicted by using the turbine's maximum sound power level following procedures established by IEC 61400-11 (version 2002-12), and assuming that all of the proposed wind facility's turbines are operating at the maximum sound power level."

In Attachment 5 to FPL's request for Amendment #3, FPL's consultant, Mark Bastasch, P.E., stated that the analysis under the new rule would be based on an assumption that all turbines were operating at "maximum sound power level." Bastasch notes that the new analysis would use the "same sound power level" as was used previously in the modeling that was done for Amendment #2, which assumed a windspeed of 56 mph. Because sound power level "is the only variable that would make a difference in the modeling outcome," Bastasch concluded that the Council's previous findings regarding compliance with Table 8 are "still valid." The Department consulted with Kerrie Standlee regarding FPL's analysis regarding the Table 8 test, and Standlee concurred with Bastasch's conclusion. Therefore, the Council finds that operation of Stateline 3 would comply with the Table 8 test under the current noise regulations.

With respect to the ambient degradation test, the new regulations provide for a waiver of the test if the person who owns the noise sensitive property executes "a legally effective

[21] "R-7" is the property identified as "81876 Gerking Flat Road, Athena, Oregon" in FPL's request for Amendment #3.

easement or real covenant" that authorizes the wind energy facility to increase the ambient statistical noise levels by more than 10 dBA.[22]

If the landowner does not provide a waiver, the new regulations specify the method of determining compliance of a "proposed facility" with the ambient degradation test. An ambient background level of 26 dBA may be assumed.[23] To determine compliance, noise levels at the appropriate measurement point are predicted "assuming that all of the proposed wind facility's turbines are operating between cut-in speed and the wind speed corresponding to the maximum sound power level established by IEC 61400-11 (version 2002-12)." A proposed facility complies with the regulation if the predicted increase over the ambient background level "is not more than 10 dBA over this entire range of wind speeds."

The Department's consultant, Kerrie Standlee, reviewed the noise data and analysis for Stateline 3 that formed the basis for the Council's findings in the Final Order on Amendment #2. In addition, Standlee reviewed information supplied by FPL from Vestas, the wind turbine manufacturer, on the sound power level for the V47-660 turbine, which is the type proposed for use at Stateline 3. Standlee determined that the noise level at R-7 would be 38 dBA "when the wind speed at the turbines first reaches that point on the wind/sound level curve associated with the maximum sound output (approximately 11 meters per second)."[24] Compared to an assumed ambient background level of 26 dBA allowed under the new regulation, a noise level of 38 dBA at the windspeed corresponding to the maximum sound power level of the Stateline 3 turbines would exceed the 10 dBA increase allowed under the current noise control regulations by 2 dBA.

The closest Stateline 3 turbine location approved under Amendment #2 is about 4,000 feet from R-7. Standlee determined that Stateline 3 would comply with the current ambient degradation test if no turbines were operated within 5,000 feet of R-7. Alternatively, FPL could establish an ambient background noise level at R-7 of 28 dBA or higher by providing adequate measurement data.

To support a Council finding of compliance with the ambient degradation test for Amendment #3, FPL proposed a new site certificate condition ("111A") that would prohibit construction of any turbine within 5,000 feet of R-7 unless the landowner has provided a legally effective easement or real covenant authorizing the certificate holder "to increase ambient statistical noise levels L_{10} and L_{50} by more than 10 dBA at the appropriate measurement point." The Council adopts new site certificate condition 122 (see page 48) recommended by the Department. The recommended condition is essentially the same as condition "111A" proposed by FPL. The Department recommended editorial changes in the proposed text and numbering the condition as "122" to be consistent with past practice. Based on the findings stated above, the Council finds that Stateline 3 complies with the current noise control regulations applicable to the facility, subject to the conditions of the site certificate, including new Condition 122.

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[22] OAR 340-035-0035(1)(b)(B)(iii)(III).

[23] The owner of the wind facility may conduct measurements to establish a higher level of ambient background noise.

[24] E-mail from Kerrie Standlee dated March 18, 2005, regarding "Stateline 3 Wind Farm Noise Issues." Standlee determined also that Stateline 3 would comply with the current ambient degradation test at M1 and M2.

Request to Modify Condition 105

The Council added Condition 105 to the site certificate under the Final Order on Amendment #1. Condition 105 concerns a property located within the Stateline 2 area (the Williams residence). The Williams residence is "within 2,000 feet" of the nearest Stateline 2 turbine.[25] In its request for Amendment #1, instead of providing a showing that Stateline 2 would comply with the noise control regulations at the Williams residence, FPL proposed an agreement with the landowner requiring that the residence remain unoccupied.[26] The agreement would remain in place during construction and operation until FPL could show, by appropriate noise studies, that Stateline 2 complied with the applicable noise control regulations. That agreement became the basis for Condition 105. The condition reads as follows:

> (105) The certificate holder shall enter into an agreement with the landowner of a property identified as 84301 Stockman Road, Helix, Oregon, requiring that the structure remain uninhabited during construction. The certificate holder shall continue the no-occupation agreement during operation for the life of the Stateline 2 facility unless, based on noise studies during operation, the certificate holder demonstrates to the satisfaction of the Office of Energy that turbine noise measured at the property is within the range allowed for a sensitive noise receptor under OAR 340-035-0035.

FPL complied with this condition during construction and continues to maintain the "no-occupation" agreement. FPL has not demonstrated to the satisfaction of the Department that turbine noise measured at the property is "within the range allowed" under the applicable noise control regulations.

In the request for Amendment #3, FPL proposes a modification of Condition 105 to require that the certificate "enter into a legally effective easement or real covenant" with the owner of the Williams residence that conforms to the requirements for a landowner waiver of the ambient degradation standard under OAR 340-035-0035(1)(b)(B)(iii)(III). Under the noise control regulations currently in effect, the waiver would allow the operation of the Stateline facility to increase the ambient statistical noise levels at the Williams residence by more than 10 dBA.

Under the modification of Condition 105 as proposed by FPL, the certificate holder would maintain the "legally effective easement or real covenant" in effect until "retirement of the Stateline 2 facility" or until the certificate holder "demonstrates to the satisfaction of the Office of Energy, based on modeling or measurements performed in compliance with OAR 340-035-0035, that an easement or real covenant is not necessary to comply with those regulations."

The Council's procedure for retirement contemplates the retirement of a facility as a whole (OAR 345-027-0110). Accordingly, the Council does not anticipate retirement "of the Stateline 2 facility." The Council finds, therefore, that Condition 122 should require the legally effective easement or real covenant to remain in effect until retirement of the Stateline facility as a whole or until the certificate holder demonstrates that compliance with the regulations can be achieved without such easement or covenant (see page 46).

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[25] FPL's request for Amendment #1, p. 42.

[26] Non-occupancy would remove the property from the definition of a "noise sensitive property" under OAR 340-035-0015(38).

The proposed "legally effective easement or real covenant" provides for a waiver of only the ambient degradation element of the noise regulations. To facility must also comply with the Table 8 test at the Williams residence.

The current noise control regulations specify the method for determining compliance of an operating wind energy facility with Table 8. OAR 340-035-0035(1)(b)(B)(iii)(VI) requires measurement of the noise level at the appropriate measurement point "when the facility's nearest wind turbine is operating at the windspeed corresponding to the maximum sound power level and no turbine that could contribute to the noise level is disabled."

FPL provided a memorandum from its consultant, Mark Bastasch, as a basis for the Council to find compliance with Table 8.[27] The memorandum included data on noise level measurements taken when, according to FPL, "no turbine that could contribute to the noise level" was disabled. The nearest Stateline wind turbine is identified as "HGS-45." The data show windspeeds at HGS-45 and corresponding measured L_{50} noise levels near the Williams residence at the appropriate measurement point. Bastasch notes that it was likely that wind noise at the microphone was contributing to the measured noise levels so that the data probably "overstate the noise emanating from the wind turbines."

The Bastasch memorandum states that the "maximum sound power level" for the V47-660 turbine is 103.5 dBA, based on information from Vestas, the turbine manufacturer. According to this information, maximum sound power level is reached at a windspeed of about 11 m/s at the IEC 61400-11 reference height of 10 meters. The measured data included noise levels when the wind speed at the turbine hub height ranged from 10.9 to 11.6 m/s, which would be equivalent to windspeeds of 8.6 to 9.1 m/s at the 10-meter reference height, according to Bastasch and verified by supporting information provided by FPL. The information from Vestas indicates that windspeeds in this range correspond to a sound power level of approximately 102.5 dBA from a V47-660 turbine, or 1 dBA below the maximum sound power level. Bastasch notes: "Such a small difference (1 dBA) would typically be considered indistinguishable and negligible."

To account for the difference between maximum turbine sound power level (103.5 dBA) and the sound power level during the measurement period (102.5 dBA), Bastasch added 1 dBA to the measured noise levels. For the measured hours of 15:00, 16:00 and 17:00, the resulting noise levels at the Williams residence were "up to 3 dBA less than the Table 8 limit of 50 dBA."

The Department's consultant, Kerrie Standlee, has reviewed the analysis submitted by FPL. Standlee noted that the data during one hour (14:00) showed a measured noise level of 50 dBA when the windspeed at the turbine was measured at 11.4 m/s. The addition of 1 dBA to the measured noise level (to account for the difference between measured windspeed and the windspeed corresponding to the maximum sound power level) would result in a noise level of 51 dBA, or 1 dBA over the Table 8 limit.

Nevertheless, Standlee concurs with the conclusion that the 50 dBA noise level measured at 14:00 was "likely influenced by noise…generated by some other source" in addition to noise from the turbines.[28] The Department notes that the data include a measured

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[27] Request for Amendment #3, Attachment 4.

[28] Letter from Kerrie Standlee, of Daly, Standlee & Associates, dated May 18, 2005, regarding the request for

noise level (at 17:00) of 46 dBA at the same windspeed of 11.4 m/s and a measured noise level (at 16:00) of 48 dBA when the windspeed was 11.6 m/s (higher than the windspeed at 14:00). These noise levels comply with the Table 8 standard. The data suggest that the measured noise level at 14:00 was influenced by factors other than turbine noise, which generally increases with windspeed. Standlee concluded that the facility complies with the Table 8 test at the Williams residence:

> It is however possible that noise generated by other sources could influence the measured data so it is difficult to state exactly what source may have influenced the measurement. Other possible sources include birds, wind blowing through trees or even an increase in aircraft traffic in the area during that hour. Thus, based on the noise data presented in Attachment 4 by Mr. Bastasch and based on the sound power data presented by the wind turbine manufacturer, I believe it can be concluded that the maximum noise radiating from the Stateline wind turbines to the Williams residence will be at or less than the DEQ 50 dBA nighttime limit at all times.

Based on the analysis above, the Council finds that the facility complies Table 8 at the Williams residence and that compliance with the ambient degradation test can be met by a "legally effective easement or real covenant" from the owner of the Williams residence that conforms to the requirements of OAR 340-035-0035(1)(b)(B)(iii)(III). As of the date of this proposed order, FPL had not entered into a legally effective easement or real covenant with the landowner. Therefore, the Council finds that Condition 105 should retain the reference to a "no-occupation" agreement and require that the certificate holder continue that agreement unless the certificate holder demonstrates to the satisfaction of the Department that the facility complies with the ambient degradation test under OAR 340-035-0035, which could be done by verifying that a legally effective easement or real covenant is in place (see page 46).

Conclusions of Law

Based on the findings above, the Council finds that the proposed Stateline 3 wind turbines would comply with the applicable noise control regulations, OAR 340-035-0035, as amended in 2004, subject to new Condition 122.

In addition, the Council finds that the certificate holder may discontinue the "no-occupation agreement" described in Condition 105 if the landowner provides a "legally effective easement or real covenant" in accordance with OAR 340-035-0035(1)(b)(B)(iii)(III).

The Council concludes that Stateline would comply with applicable noise control regulations if Amendment #3 were approved, subject to new Condition 122 and the adopted changes to Condition 105.

(b) Wetlands

Findings of Fact

In the Final Order on Amendment #2, the Council made detailed findings on ORS 196.810 and the Division of State Lands Removal-Fill rules (OAR Chapter 141, Division 85).[29] The Council concluded that a removal/fill permit was not required. Because

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Amendment #3.

[29] Final Order on Amendment #2, pp. 106-107.

Amendment #3 would not involve any change in the design, size or location of Stateline 3 facilities, the Council finds that there has been no change of circumstances that would affect the Council's earlier findings regarding Stateline 3. Further, the Council finds that the modification of Condition 105 as adopted by this order would not affect any findings regarding wetlands.

Conclusions of Law

The Council concludes that Stateline would comply with applicable regulations pertaining to wetlands if Amendment #3 were approved and that no removal/fill permit is required. In addition, the Council concludes that no new conditions are required.

(c) Water Rights

Findings of Fact

In the Final Order on Amendment #2, the Council made detailed findings on the provisions of the Ground Water Act of 1955, ORS 537.505 to 537.796 and OAR Chapter 690.[30] The Council concluded that the proposed use of ground water for the construction and operation of Stateline 3 would comply with the Ground Water Act of 1955 and the rules of the Water Resources Department, subject to the conditions stated in the order. Because Amendment #3 would not involve any change in the design, size, location or operation of Stateline 3 facilities, the Council finds that there has been no change of circumstances that would affect the Council's earlier findings regarding Stateline 3. Further, the Council finds that the modification of Condition 105 as adopted by this order would not affect any findings regarding water right.

Conclusions of Law

Based on the findings above, the Council concludes that Stateline would comply with applicable regulations pertaining to water rights if Amendment #3 were approved. In addition, the Council concludes that no new conditions are required.

(d) Public Health and Safety

Findings of Fact

In the Final Order on Amendment #2, the Council made detailed findings regarding public health and safety; the Council made specific findings regarding potential impacts from electric and magnetic fields and coordination with the Oregon Public Utility Commission's Safety and Reliability Section.[31] The Council concluded that the siting, construction and operation of the proposed Stateline 3 facilities would be consistent with protection of public health and safety, subject to the conditions stated in the order.[32] Because Amendment #3 would not involve any change in the design, size, location or operation of Stateline facilities, the Council finds that there has been no change of circumstances that would affect the Council's earlier findings regarding Stateline 3. Further, the Council find that the

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[30] Final Order on Amendment #2, pp. 107-108.
[31] Final Order on Amendment #2, pp. 108-111.
[32] Conditions 2, 6, 21, 22, 36, 38, 62, 95, 108, 110 and 113 relate to protection public health and safety.

modification of Condition 105 as adopted by this order would not affect any findings regarding public health and safety.

Conclusions of Law

Based on the findings above, the Council concludes that Stateline would comply with requirements to protect public health and safety if Amendment #3 were approved. In addition, the Council concludes that no new conditions are required.

2. Requirements That Are Not Under Council Jurisdiction

(a) Federally-Delegated Programs

Under ORS 469.503(3), the Council does not have jurisdiction for determining compliance with statutes and rules for which the federal government has delegated the decision on compliance to a state agency other than the Council. Nevertheless, the Council may rely on the determinations of compliance and the conditions in the federally-delegated permits issued by these state agencies in deciding whether the proposed facility meets other standards and requirements under its jurisdiction.

(b) Requirements That Do Not Relate to Siting

Under ORS 469.401(4), the Council does not have authority to preempt the jurisdiction of any state agency or local government over matters that are not included in and governed by the site certificate or amended site certificate. Such matters include design-specific construction or operating standards and practices that do not relate to siting. Nevertheless, the Council may rely on the determinations of compliance and the conditions in the permits issued by these state agencies and local governments in deciding whether the facility meets other standards and requirements under its jurisdiction.

VI. GENERAL APPLICATION OF CONDITIONS

The conditions referenced in this order include conditions that are specifically required by OAR 345-027-0020 (Mandatory Conditions in Site Certificates), OAR 345-027-0023 (Site Specific Conditions), OAR 345-027-0028 (Monitoring Conditions) or OAR Chapter 345, Division 26 (Construction and Operation Rules for Facilities). The conditions referenced in this order, or added to the site certificate by this order, include conditions based on representations in the request for amendment and the supporting record that the Council deems to be binding commitments made by the certificate holder. Also included are conditions that the Council finds necessary to ensure compliance with the siting standards of OAR Chapter 345, Divisions 22 and 24, or to protect public health and safety.

The references to specific conditions are included in sections IV and V of this order for convenience only. Such references do not relieve the certificate holder from the obligation to comply with all site certificate conditions.

In addition to all other conditions referenced or included in this order, the site certificate holder is subject to all conditions and requirements contained in the rules of the Council and in local ordinances and state law in effect on the date the amended site certificate

is executed.[33] Under ORS 469.401(2), upon a clear showing of a significant threat to the public health, safety or the environment that requires application of later-adopted laws or rules, the Council may require compliance with such later-adopted laws or rules.

The Council recognizes that many specific tasks related to the design, construction, operation and retirement of the facility will be undertaken by the certificate holder's agents or contractors. Nevertheless, the certificate holder is responsible for ensuring that all agents and contractors comply with all provisions of the site certificate.

VII. GENERAL CONCLUSION

The proposed amendment would extend the construction beginning and completion deadlines for Stateline 3 and would modify Condition 105 consistent with the OAR 340-035-0035 as amended in 2004. In addition, the Council finds that new site certificate conditions 121 and 122, revisions to conditions 35 and 37 and revisions to the *Oregon Wildlife Monitoring Plan* (Attachment A) would be needed if the Council approves the proposed amendment.

Based on the findings and conclusions discussed above regarding the proposed amendment, the Council makes the following findings:

1. The proposed Amendment #3 complies with the requirements of the Oregon Energy Facility Siting statutes, ORS 469.300 to ORS 469.570 and 469.590 to 469.619.
2. The proposed Amendment #3 complies with the standards adopted by the Council pursuant to ORS 469.501.
3. The proposed Amendment #3 complies with all other Oregon statutes and administrative rules applicable to the amendment of the site certificate for the Stateline Wind Project and within the Council's jurisdiction.

Accordingly, the Council finds that the facility complies with the General Standard of Review (OAR 345-022-0000). The Council concludes, based on a preponderance of the evidence on the record, that the site certificate may be amended as proposed by FPL and set forth in Section III.3 above at page 4, subject to the revisions recommended by the Department and set forth below and in Attachment A. In addition, the Council adopts the following site certificate language to clarify references to Attachments A, B and C:

At page 1, following line 15

Where this site certificate refers to attachments "to the final order," the applicable final orders are as follows:

- Attachment A: Final Order on Amendment #3
- Attachment B: Final Order on Amendment #2
- Attachment C: Final Order on Amendment #2 [Amendment #3]

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[33] With regard to land use, the applicable local criteria are those in effect on the date the certificate holder submitted the request for amendment.

1. The Department's Recommended Revisions

The text as proposed by FPL is shown without special markings. Revised text proposed by the Department is underlined and deletions have a strikethrough.

Revision 1

At page 11, line 15

(35) The certificate holder shall take steps to protect the facility and property from unauthorized access and to reduce the risk of accidental injury during construction and operations ~~would be minimized~~ by (App U-25, 26) [Amendment #3]:
(a) Maintaining access gates on private access roads to Stateline 3 facilities in accordance with Umatilla County Development Code § 152.616(HHH)(5)(e), unless Umatilla County has allowed a waiver upon a request by the landowner, and otherwise ~~M~~maintaining fencing and access gates around dangerous equipment or portions of the site as feasible [Amendment #3]

* * *

Explanation

The unmarked text shows the current text of Condition 35. The revision to the introductory sentence of Condition 35 includes protection of the facility and property from unauthorized access as part of the basis for the condition. The deletion of the phrase, "would be minimized," corrects a typographical error. The new text in subparagraph (a) incorporates language that Umatilla County suggested for placement in Condition 38 and clarifies that the waiver would need to be "allowed" before it could effectively relieve the certificate holder and the property owner from the requirement of gated access. The changes to Condition 35 are not intended to change the site certificate requirements with regard to Stateline 1 and Stateline 2 facilities.

Revision 2

At page 11, line 33, to page 12, line 14

(37) To reduce the visual impact of the facility, the certificate holder shall:

* * *

(i) Design and construct the operation and maintenance building to be generally consistent with the character of similar buildings used by commercial farmers or ranchers. Upon retirement of the energy facility, the operations and maintenance building must be removed or converted to farm use, in accordance with Condition 98. [Amendment #3]

Explanation

The Council adopts the addition of a reference to Condition 98 to the language proposed by FPL. Condition 98 requires that retirement proceed according to a final retirement plan approved by the Council.

Revision 3

At page 24, lines 39-43 and page 25, lines 1 and 2

(105) The certificate holder shall enter into an agreement with the landowner of a property identified as 84301 Stockman Road, Helix, Oregon, requiring that the structure remain uninhabited during construction. The certificate holder shall continue the no-occupation agreement until retirement of the facility unless the certificate holder demonstrates to the satisfaction of the Department that the facility complies with the applicable noise control regulations under OAR 340-035-0035. The certificate holder may demonstrate compliance with the regulations as to the increase in ambient statistical noise levels by ~~shall enter~~ entering into a legally effective easement or real covenant with the owner of the property identified as 84301 Stockman Road, Helix, Oregon, pursuant to which the owner authorizes the ~~Stateline 2 facilities~~certificate holder's operation of the facility to increase ambient statistical noise levels L10 and L50 ~~on the respective properties~~ by more than 10 dBA at the appropriate measurement point. A legally effective easement or real covenant shall: include a legal description of the burdened property (the noise sensitive property); be recorded in the real property records of the county; expressly benefit the certificate holder; expressly run with the land and bind all future owners, lessees or holders of any interest in the burdened property; and not be subject to revocation without the certificate holder's written approval. ~~The certificate holder shall maintain~~If such easement or real covenant is not in effect~~until the retirement of the Stateline 2 facility, unless~~, then the certificate holder shall demonstrates to the satisfaction of the ~~Office of Energy~~Department, based on modeling or measurements performed in compliance with OAR 340-035-0035, that an easement or real covenant is not necessary to comply with those regulations. [Amendment #3].

Explanation

The first part of the revision restores the existing language of Condition 105 regarding the "no-occupation agreement." The second sentence revises the current Condition 105 and requires the no-occupation agreement to be continued until retirement of the Stateline facility unless the certificate holder demonstrates to the satisfaction of the Department that the facility complies with the noise regulations. To demonstrate compliance with the Table 8 test at the Williams residence, the certificate holder may rely on a final order by the Council that includes a finding that the facility complies with that test. Compliance with the ambient degradation test can be demonstrated by verification that a "legally effective easement or real covenant" is in place. If such agreement is not in effect, then the certificate holder must demonstrate compliance with the ambient degradation test "based on modeling or measurements performed in compliance with OAR 340-035-0035."

The Council adopts editorial changes to the language proposed by FPL, including replacing references to "Stateline 2" with references to "the facility" to avoid ambiguity and to clarify that the facility as a whole must comply with the applicable noise regulations.

Revision 4

~~*Page 26, line 29*~~

Page 28, line 5

VIII. CONDITIONS ADDED BY AMENDMENT #3

The conditions in this section apply to the facility as a whole. [Amendment #3]

(121) The certificate holder shall not construct any Stateline 3 facilities in areas identified as Category 1 habitat in the Final Order on Amendment #2 or otherwise disturb that habitat unless the Council specifically authorizes such construction or other disturbance in a future site certificate amendment proceeding. In a future proceeding, the Council may consider proposed changes in the location of Stateline 3 facilities in the affected area, may re-evaluate whether some or all of the affected area qualifies as Category 1 habitat and, if appropriate, may apply its balancing authority under OAR 345-022-0000(2). [Amendment #3]

(~~111A~~122) Prior to constructing any turbine within 5,000 feet of the property identified as 81876 Gerking Flat Road, Athena, Oregon, the certificate holder shall enter into a legally effective easement or real covenant pursuant to which the owner of the property authorizes the ~~Stateline 3 facilities~~certificate holder's operation of the facility to increase ambient statistical noise levels L10 and L50 by more than 10 dBA at the appropriate measurement point. The 5,000-foot distance shall be measured from the appropriate measurement point as determined pursuant to OAR 340-035-0035. A legally effective easement or real covenant shall: include a legal description of the burdened property (the noise sensitive property); be recorded in the real property records of the county; expressly benefit the certificate holder; expressly run with the land and bind all future owners, lessees or holders of any interest in the burdened property; and not be subject to revocation without the certificate holder's written approval. ~~The certificate holder shall maintain~~If such easement or real covenant is not in effect ~~until the retirement of the Stateline 3 facility, unless~~, then the certificate holder shall demonstrate~~s~~ to the satisfaction of the ~~Office of Energy~~Department, based on modeling or measurements performed in compliance with OAR 340-035-0035, that an easement or real covenant is not necessary to comply with those regulations. [Amendment #3]

Explanation

FPL proposed new condition "111A" to be inserted in the site certificate on page 26 following Condition 111. The Council adopts, instead, a new section "VIII" following Condition 120 on page 28. This maintains consistency in the established numbering system for conditions and in the practice of adding conditions by amendment at the end of the list of previously adopted conditions.

The Council adopts new Condition 121 to document FPL's "understanding" that "permission for disturbance within Category 1 habitat would require findings by the Council under the revised balancing standard."[34]

New Condition 122 is the language proposed by FPL as condition "111A" with a few editorial changes. The Council adopts replacement of references to "Stateline 3" with references to "the facility" to avoid ambiguity and to clarify that the facility as a whole must comply with the applicable noise regulations. Revisions in the final sentence reflect the advice of the Department of Justice to ensure compliance with the noise regulations in the event a "legally effective easement or real covenant" is not in effect for any reason.

[34] Request for Amendment #3, p. 7.

VIII. PROPOSED ORDER

The Council approves Amendment #3 and issuance of an amended site certificate for the Stateline Wind Project, subject to the terms and conditions set forth above.

Issued this 20th day of June, 2005.

THE OREGON ENERGY FACILITY SITING COUNCIL

By: _____

Karen H. Green
Chair, Oregon Energy Facility Siting Council

Attachments

Attachment A: *Oregon Wildlife Monitoring Plan (Revised)*

Notice of the Right to Appeal

You have the right to appeal this order to the Oregon Supreme Court pursuant to ORS 469.405. To appeal you must file a petition for judicial review with the Supreme Court within 60 days from the day this order was served on you. If this order was personally delivered to you, the date of service is the date you received this order. If this order was mailed to you, the date of service is the date it was mailed, not the day you received it. If you do not file a petition for judicial review within the 60-day time period, you lose your right to appeal.

Stateline Wind Project: Oregon Wildlife Monitoring Plan

[Revised June 20, 2005]

This plan describes wildlife monitoring the certificate holder shall conduct during operation[1] of the Stateline Wind Project facility in Oregon. The 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. This plan addresses the facility as permitted under the Oregon site certificate, as amended.

The Stateline Wind Project facility[2] consists of:

- Stateline 1: no more than 127 wind turbines, four meteorological (met) towers and other related or supporting facilities as described in the Final Order on the site certificate application (September 14, 2001).[3]
- Stateline 2: no more than 60 wind turbines, two met towers and other related or supporting facilities as described in the Final Order on Site Certificate Amendment #1.
- Stateline 3: no more than 279 wind turbines, 13 met towers, a substation, approximately 17 miles of aboveground 34.5-kV transmission line, approximately 8.5 miles of aboveground 115-kV or 230-kV transmission line, and other related or supporting facilities as described in the Final Order on Amendment #2.

Wildlife monitoring is necessary to determine whether operation of the facility results in a net loss of habitat quality. For raptors, this will require that the certificate holder obtain a reasonable estimate of the effect of the project on raptors in the context of local raptor populations.

The certificate holder shall use properly trained personnel to conduct this monitoring, subject to approval by the Department of Energy as to professional qualifications. For all monitoring except FPL's Wildlife Response and Reporting System (described below), the certificate holder shall hire an independent third party (not employees of the certificate holder) to perform monitoring tasks.

The Oregon Wildlife Monitoring Plan for the Stateline Wind Project includes the following components:

1) Fatality monitoring program involving:

a) Removal trials

b) Searcher efficiency trials

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[1] This plan does not address pre-construction wildlife surveys that FPL Energy carried out in support of its application for a site certificate for the Stateline project.

[2] As used herein "facility" includes Stateline 1, 2 and 3.

[3] The Final Order authorized construction of 127 turbines. However, only 126 were actually built. The Final Order described the four Stateline 1 permanent met towers as "guyed masts set in concrete foundations" (Final Order page 12). However, the certificate holder now plans to use unguyed, concrete met towers for both Stateline 1 and 2. Nevertheless, if any permanent guyed met towers are used, the certificate holder shall comply with the provisions in this plan that address guyed met towers.

c) Standardized carcass searches

2) Established monitoring transect searches

3) Raptor nesting surveys

4) Burrowing owl surveys

5) FPL's Stateline Wind Project Wildlife Response and Reporting System

Following is a discussion of the components of the monitoring plan, statistical analysis methods for fatality data and data reporting.

1. Definitions and Methods

Seasons

This plan uses the following dates for defining seasons:

Season	Dates
Spring Migration	March 16 to May 15
Summer/Breeding	May 16 to August 15
Fall Migration	August 16 to October 31
Winter	November 1 to March 15

Search Plot Selection

The certificate holder shall conduct standardized carcass searches within search plots. The certificate holder, in consultation with the Oregon Department of Fish and Wildlife (ODFW), shall select search plots based on a systematic sampling design (in general, every other plot is sampled in a monitoring year). Turbine strings will be broken into rectangular search plots that contain two to four turbines each. The edge of plots will be no closer than 63 meters from the nearest turbine or, if guyed meteorological (met) towers are used, no closer than 63 meters from the nearest guyed met tower. The certificate holder shall provide maps of the search plots to the Department of Energy before beginning fatality monitoring at the facility. The certificate holder shall use the same search plots for each search conducted during a monitoring year.

Scheduling and Sampling Frequency

The certificate holder will begin monitoring in Oregon upon the beginning of operation of the facility. For Stateline 1, the first "monitoring year" commenced January 1, 2002. For Stateline 2, the first monitoring year will commence January 1, 2003. For Stateline 3, the first monitoring year will commence January 1, 2008.

Within each monitoring year for Stateline 1 and 2, the certificate holder will conduct standardized carcass searches at the rates of frequency shown below. Over the course of one monitoring year, the certificate holder would conduct 16 searches. The total number of searches per season is based on applying the rate to the number of months in the season (as defined above).

Season	Frequency
Spring Migration	2 searches per month (4 searches)
Summer/Breeding	1 search per month (3 searches)
Fall Migration	2 searches per month (5 searches)
Winter	1 search per month (4 searches)

For Stateline 3, the certificate holder shall conduct 9 searches, beginning approximately March 15. Subsequent searches shall be done approximately the 15th of each month, ending on November 15.

Sample Size for Standardized Carcass Searches

For the standardized carcass searches described below, the sample size is the number of turbines searched per monitoring year. Because the number of turbines per search plot varies from two to four (as described above), the number of search plots will be less than the sample size (total number of turbines searched per year).

The determination of the sample size is based primarily on the expected precision in the fatality estimates for the entire Stateline Wind Project in Oregon and Washington.

Stateline 1 sample size: The certificate holder shall search a minimum of 123 turbines during the first monitoring year, of which at least 63 are in Oregon. The certificate holder shall search a minimum of 123 turbines during the second monitoring year, of which at least 63 are in Oregon. Over the first two monitoring years, all 126 Oregon turbines will be searched for at least 12 months. In addition, if guyed met towers are used, all permanent guyed met towers will be searched during each monitoring year.

Stateline 2 sample size: The certificate holder shall search a minimum of 30 turbines in 2003. The certificate holder shall search a minimum of 15 turbines in 2006. The certificate holder shall select the 15 turbines in consultation with ODFW and the Department of Energy. In addition, if guyed met towers are used, all permanent guyed met towers will be searched during each year of fatality monitoring.

Stateline 3 sample size: The certificate holder shall search 56 turbines in 2008. The certificate holder shall select the turbines in consultation with ODFW and the Department of Energy from the following turbine strings: BG-A, D-A, D-C, D-D, G-A, G-B, SH-A, SH-B, SH-C, V-A, WAY-A, WAY-B and WAY-C. If fewer than 56 turbines in these strings are built by December 31, 2007, then the certificate holder shall search all turbines in these strings that are built.

Duration of Fatality Monitoring

Stateline 1: The certificate holder may terminate fatality monitoring of Stateline 1 turbines on December 31, 2003, subject to the approval of the Department of Energy.

Stateline 2: The certificate holder may terminate the fatality monitoring of Stateline 2 turbines after completing two monitoring years of those turbines, subject to the approval of the Department of Energy.

Stateline 3: The certificate holder may terminate the fatality monitoring of Stateline 3 turbines after completing one monitoring year, subject to the approval of the Department of Energy.

For both Stateline 1 and Stateline 2, the certificate holder shall use a worst-case analysis to resolve any uncertainty in the results based on the first two years of data and to determine whether the first two years of data indicate that mitigation is required.[4] In lieu of approving the termination of the fatality monitoring program for either Stateline 1 or Stateline 2 after two years, the Department of Energy may require additional, targeted monitoring if the first two years of data indicate the potential for unexpected impacts of a type that cannot be resolved appropriately by worst-case analysis and appropriate mitigation.

For Stateline 3, the certificate holder shall use a worst-case analysis to resolve any uncertainty in the results and to determine whether mitigation is required. In lieu of approving the termination of the fatality monitoring program for Stateline 3 after one year, the Department of Energy may require additional, targeted monitoring if the data indicate the potential for unexpected impacts of a type that cannot be resolved appropriately by worst-case analysis and appropriate mitigation.

2. Removal Trials

The objective of the removal trials is to estimate the length of time avian and bat carcasses remain in the search area. Carcass removal studies will be conducted during each season in the vicinity of the search plots. Estimates of carcass removal will be used to adjust carcass counts for removal bias. "Carcass removal" is the disappearance of a carcass from the search area due to predation, scavenging or other means such as farming activity.

The certificate holder shall conduct carcass removal trials within each of the seasons defined above for Stateline 1 and 2 in those years in which the certificate holder performs fatality monitoring. This monitoring plan does not require removal trials for Stateline 3. Planted carcasses will not be placed in the carcass search plots because they might be confused with wind turbine-related fatalities, especially if they have been scavenged. Planted carcasses will be placed in the vicinity of search plots but not so near as to attract scavengers to the search plots themselves. The planted carcasses will be located randomly within the carcass removal trial plots.

Each season, approximately 10 carcasses of birds of two size classes (20 total carcasses) will be distributed in each of two habitat types (grassland/shrub-steppe and cultivated agriculture).[5] The total number of trial carcasses may vary. Small carcasses (e.g., house sparrows, starlings, commercially available game bird chicks) will simulate passerines and large carcasses (e.g., raptor carcasses provided by agencies, commercially available adult game birds or cryptically colored chickens) will simulate large birds such as raptors, game birds and waterfowl. If fresh bat carcasses are available, they may also be used.

The certificate holder shall conduct ten removal trials per monitoring year: two in the spring season, three in summer, two in fall and three in winter.[6] In each trial in the spring and fall, at least five carcasses from each size class (10 total carcasses) will be placed in each of the two habitat types. In each trial in the summer and winter, at least three carcasses from each size

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[4] The certificate holder shall make this determination separately for Stateline 1 and 2; that is, based on two years of data on the Stateline 1 turbines and, separately, based on two years of data on the Stateline 2 turbines.
[5] This means that approximately 160 trial carcasses would be used in carcass removal trials during one monitoring year.
[6] For Stateline 1 and Stateline 2 monitoring years.

class (6 total carcasses) will be placed in each of the two habitat types. Trials will be spread throughout the year to incorporate the effects of varying weather, climatic conditions, farming practices and scavenger densities.

Carcasses will be placed in a variety of postures to simulate a range of conditions. For example, birds will be: 1) placed in an exposed posture (e.g., thrown over the left shoulder), 2) hidden to simulate a crippled bird (e.g., placed beneath a shrub or tuft of grass), and, 3) partially hidden.

It is expected that carcasses will be checked as follows, although actual intervals may vary. Carcasses will be checked for a period of 40 days to determine removal rates. They will be checked every day for the first 4 days, and then on day 7, day 10, day 14, day 20, day 30 and day 40. This schedule may vary depending on weather and coordination with the other survey work. At the end of the 40-day period, the trial carcasses will be removed. Trial carcasses will be marked discreetly (markers to be determined) for recognition by searchers and other personnel. Trial carcasses will be left at the location until the end of the carcass removal trial. The entire carcass may be marked with a substance that fluoresces under a black light as some carcasses may be reduced to feather spots.

Carcass searchers can check carcasses during their regular schedule of searches and additionally on days they are not conducting the searches. Properly trained personnel will conduct the removal trials.

3. Searcher Efficiency Trials

The objective of searcher efficiency trials is to estimate the percentage of bird and bat fatalities that searchers are able to find.

The certificate holder shall conduct searcher efficiency trials in the same area in which carcass searches occur in both grassland/shrub-steppe and cultivated agriculture habitat types. Trials will be conducted in each season for Stateline 1 and 2 in those years in which the certificate holder performs fatality monitoring. The certificate holder will conduct searcher efficiency trials for Stateline 3 during the spring, summer and fall seasons. Searcher efficiency will be estimated by habitat type and season. Estimates of searcher efficiency will be used to adjust the number of carcasses found, correcting for detection bias.

Each season, approximately 10 carcasses of birds of two size classes (20 total carcasses) will be distributed in each of two habitat types (grassland/shrub-steppe and cultivated agriculture).[7] The certificate holder shall conduct ten searcher efficiency trials per monitoring year for Stateline 1 and 2: two in the spring season, three in summer, two in fall and three in winter.[8] In each trial in the spring and fall, at least five carcasses from each size class (10 total carcasses) will be placed in each of the two habitat types. In each trial in the summer and winter, at least three carcasses from each size class (6 total carcasses) will be placed in each of the two habitat types. For Stateline 3, the certificate holder shall conduct searcher efficiency trials as described in this paragraph, except for the winter season.

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[7] This means that approximately 160 trial carcasses would be used in searcher efficiency trials during one monitoring year.
[8] For Stateline 1 and Stateline 2 monitoring years.

Personnel conducting searches will not know when trials are conducted; nor will they know the location of the trial carcasses. If suitable trial carcasses are available, trials during the fall season will include several small brown birds to simulate bat carcasses. Legally obtained bat carcasses will be used if available.

On the day of a standardized carcass search (described below) but before the beginning of the search, efficiency trial carcasses will be placed at random locations within areas to be searched. If scavengers appear attracted by placement of carcasses, the carcasses will be distributed before dawn.

Efficiency trials will be spread over the entire season to incorporate effects of varying weather and vegetation growth. Carcasses will be placed in a variety of postures to simulate a range of conditions. For example, birds will be: 1) placed in an exposed posture (thrown over the left shoulder), 2) hidden to simulate a crippled bird, and 3) partially hidden. Each carcass will be discreetly secured at its location to discourage removal by scavengers.

Each non-domestic carcass will be discreetly marked so that it can be identified as an efficiency trial carcass after it is found. The number and location of the efficiency trial carcasses found during the carcass search will be recorded. The number of efficiency trial carcasses available for detection during each trial will be determined immediately after the trial by the person responsible for distributing the carcasses.

If new searchers are brought into the search team, additional detection trials will be conducted to insure that detection rates incorporate searcher differences.

4. Standardized Carcass Searches

The objective of the standardized carcass searches ("fatality monitoring") is to estimate the number of bird and bat fatalities that are attributable to facility operation. The goal of bird and bat fatality monitoring is to obtain a precise estimate of the fatality rate and associated variances.

On an annual basis, the certificate holder shall report an estimate of fatalities in six categories: 1) all birds, 2) small birds, 3) large birds, 4) raptors, 5) bats and 6) grassland birds. The certificate holder shall base these estimates on search data from the entire Stateline Wind Project in Oregon and Washington. In addition, the certificate holder shall report fatalities of Washington ground squirrels observed during the carcass searches and shall record and document detections of Washington ground squirrels (scat, holes and live detections).

The certificate holder shall estimate the number of avian and bat fatalities attributable to operation of the facility based on the number of avian and bat fatalities found at the facility site whose death appears related to facility operation. All carcasses located within areas surveyed, regardless of species, will be recorded and, if possible, a cause of death determined based on blind necropsy results. Total number of avian and bat carcasses will be estimated by adjusting for removal and searcher efficiency bias. If the cause of death is not apparent, the mortality will be attributed to facility operation.

The certificate holder shall conduct two years of fatality monitoring for Stateline 1 area and two years of fatality monitoring for Stateline 2.[9] For Stateline 3, the certificate holder shall

[9] Years may run concurrently.

conduct three seasons (spring, summer and fall) of fatality monitoring. If analysis of the fatality data collected after any two monitoring years[10] indicates that a significant impact on wildlife and wildlife habitat has occurred, the certificate holder shall implement appropriate mitigation, subject to the approval of the Department of Energy. Mitigation is discussed in Section 12 below.

Personnel trained in proper search techniques ("the searchers") will conduct the carcass searches by walking parallel transects. The searchers will search rectangular search plots with the long axis of the plot centered on the turbine string. All area within a minimum of 63 meters from turbines or permanent guyed met towers will be searched. Transects will be initially set at 6 meters apart in the area to be searched. A searcher will walk at a rate of approximately 45 to 60 meters per minute along each transect searching both sides out to three meters for casualties. Search area and speed may be adjusted by habitat type after evaluation of the first searcher efficiency trial. It should take approximately 45 to 90 minutes to search each turbine (each search plot contains multiple turbines), depending on the habitat type.

The searchers will record the condition of each carcass found, using the following condition categories:

- Intact – a carcass that is completely intact, is not badly decomposed and shows no sign of being fed upon by a predator or scavenger
- Scavenged – an entire carcass that shows signs of being fed upon by a predator or scavenger, or portions of a carcass in one location (e.g., wings, skeletal remains, legs, pieces of skin, etc.)
- Feather Spot – 10 or more feathers at one location indicating predation or scavenging

All carcasses (avian and bat) found during the standardized carcass searches will be photographed, recorded and labeled with a unique number. Each carcass will be bagged and frozen for future reference and possible necropsy. A copy of the data sheet for each carcass will be kept with the carcass at all times. For each carcass found, searchers will record species, sex and age when possible, date and time collected, location, condition (e.g., intact, scavenged, feather spot) and any comments that may indicate cause of death. Searchers will photograph each carcass as found and will map the find on a detailed map of the search area showing the location of the wind turbines and associated facilities. The certificate holder shall coordinate collection of state endangered, threatened or protected species with the Oregon Department of Fish and Wildlife (ODFW). The certificate holder shall coordinate collection of federal endangered, threatened or protected species with the U.S. Fish and Wildlife Service (USFWS). The certificate holder shall obtain appropriate collection permits from ODFW and USFWS.

The searchers might discover carcasses incidental to formal carcass searches (e.g., while driving within the project area). If the incidentally discovered carcasses are found at turbines that are not part of the formal search sample, the searchers will identify, photograph and collect the carcasses as is done for carcasses within the formal search sample during scheduled searches. If the incidentally discovered carcasses are within the formal search plots, the searchers will leave the carcasses undisturbed, unless the carcass is a state or federally threatened or endangered

[10] After three seasons (spring, summer and fall) for Stateline 3.

species. The certificate holder shall coordinate collection of state endangered, threatened or protected species with ODFW. The certificate holder shall coordinate collection of federal endangered, threatened or protected species with the USFWS. The searchers will record the location of all incidentally discovered carcasses or injured birds on a detailed map of the study area showing the location of wind turbines and associated facilities such as power lines and met towers. Any injured native birds found will be carefully captured by a trained Project Biologist or technician and transported to Blue Mountain Wildlife Center in Pendleton in a timely fashion. The certificate holder shall follow a protocol for handling injured birds that has been developed with Lynn Thompkins of Blue Mountain Wildlife.

5. Established Monitoring Transect Surveys

The objective of surveys of established monitoring transects is to determine whether the operation of the facility results in a loss of habitat quality. A reduction in use by grassland/steppe avian species near the facility would indicate a loss of habitat quality.

Stateline 1 transects: The certificate holder has established 20 transects perpendicular to the turbine strings in non-agricultural grassland steppe and CRP habitats.[11]

Stateline 2 transects: No additional transects could be established because the turbine strings are located in cultivated land.

Stateline 3 transects: The certificate holder shall establish six new transects (four on turbine strings BG-A, BG-B or BG-C, and two on turbine string G-B).[12]

The transects will be a maximum of 1000 feet (300 meters) long, but, if no alternative exists, some transects may be shorter due to access problems or a change of habitat type from non-agricultural habitats to cultivated agricultural habitats. The certificate holder will provide to the Department of Energy a map or other clear indication of locations where landowners refuse access and a map of the locations of the established monitoring transects before beginning the monitoring transect surveys for Stateline 1.

A qualified observer will walk the pre-established transects and record observations of grasshopper sparrows (singing males and perched birds), long-billed curlews and other grassland/steppe avian species. The approximate distance along the transect will be recorded for each detection, and the habitat type will be recorded for each 50 meter (m) segment of the transect (6 segments).

Three searches will be conducted between mid-April and late June. The searches will occur at times spread throughout the period, and the same timing of searches will be used for each monitoring year. Observers will record observations of grassland/steppe avian species within 50 m on either side of the transect. Numbers of individual birds (if possible to determine) for each species will be recorded for each transect. Observers will map the locations where

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[11] The original Oregon Wildlife Monitoring Plan (9/14/01) required the certificate holder to survey 24 transects that had been established before construction of Stateline 1. However, due to changes in project layout between the initial monitoring plan and the final layout as shown in the site certificate and changes in habitat due to landowner uses, the number of suitable transects for this survey has been reduced to 20.

[12] Transects on turbine strings BG-A, BG-B and BG-C were surveyed in 2001 or 2002. In 2003, the certificate holder shall conduct pre-construction surveys of all six transects that will be used for post-construction surveys.

individual birds are first observed. During each transect search, observers will record detections of Washington ground squirrels (scat, holes and live detections).

The certificate holder shall conduct a gradient analysis, using regression analysis or other appropriate statistical methods, to determine the relationship between density of grassland/steppe avian species and distance from turbines. A "gradient analysis" means an analysis that assesses whether a significant or a biologically substantial relationship exists between distance from project structures and abundance or use of the area.

The certificate holder shall conduct post-construction established transect surveys on the 20 Stateline 1 transects in 2002 and 2006. If any Stateline 3 turbines are built, the certificate holder shall conduct an additional year of transect surveys on the 20 Stateline 1 transects and shall survey the six Stateline 3 turbines in 2010. The Department of Energy may require a second year of transect surveys on the Stateline 3 transects if first-year data suggest effects inconsistent with the results of the Stateline 1 transect surveys.

Based on the results of the Stateline 1 and Stateline 3 transect surveys, the certificate holder shall determine whether the gradient analysis indicates that the energy facility structures are causing reduced wildlife use of nearby habitat. If the analysis indicates any displacement of grassland/steppe avian species has occurred, the certificate holder shall implement appropriate mitigation, subject to the approval of the Department of Energy. If the gradient analysis suggests that displacement has occurred but lacks statistical power, the certificate holder shall make the worst-case assumption that displacement has occurred to the extent demonstrated in available scientific literature (Leddy et al. 1999) and shall mitigate accordingly. Such mitigation may include the enhancement of an amount of habitat necessary to support the estimated number of grasshopper sparrows and other grassland nesting passerines displaced by the wind turbines and the protection of that enhanced habitat for the life of the facility. The certificate holder shall estimate the displacement effect and distance using the gradient analysis described above.

The Department of Energy may require additional, targeted surveys if the data from transect surveys indicate the potential for unexpected impacts of a type that cannot be resolved appropriately by worst-case analysis and appropriate mitigation.

6. Raptor Nest Surveys

The objectives of raptor nest surveys are to estimate the size of the local breeding populations of tree-nesting raptor species in the vicinity of the facility and to determine whether operation of the facility results in a reduction of nesting activity or nesting success in the local populations of "target raptor species": Swainson's hawk, ferruginous hawk, golden eagle and prairie falcon.

Aerial and ground surveys will be used to gather nest success statistics on active nests, nests with young and young fledged. The certificate holder will share the data with state and federal biologists.

During each survey year, the certificate holder shall conduct at least one helicopter survey and additional surveys as described in this section. All nests will be given identification numbers, and 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. Locations of inactive nests will also be recorded as they may become occupied during future years. All new

nests not previously mapped, whether active or inactive, will be given an identification number and their locations (coordinates) will be recorded. Ground surveys are subject to access.

For Stateline 1, the certificate holder conducted aerial surveys between May 5 and 17, 2002, and between June 8 and 28, 2002. Surveys were conducted within a 5-mile buffer of the Stateline 1 turbines. In addition, active ferruginous hawk and Swainson's hawk nests within two miles of Stateline 1 turbines were surveyed from the ground to determine nesting success.

In 2003, the certificate holder shall conduct an aerial survey within a 2-mile buffer of Stateline 1 and 2 turbines to determine nest occupancy. In addition, the certificate holder shall conduct a minimum of one ground survey to determine species, number of young and nesting success. "Nesting success" means that the young have successfully fledged (the young are independent of the core nest site). In the ground surveys, the certificate holder shall target Swainson's hawk and ferruginous hawk nests and any nests of the target raptor species not observed during the aerial survey.

In 2006, the certificate holder shall conduct an aerial survey to determine nest occupancy and a minimum of one ground survey to determine species, number of young and nesting success. The survey area will be within a 2-mile buffer around Stateline 2 turbines. However, if any Stateline 3 turbines are built, the survey area will cover a 2-mile buffer around all Stateline 1, 2 and 3 turbines. In the ground surveys, the certificate holder shall target Swainson's hawk and ferruginous hawk nests and any nests of the target raptor species not observed during the aerial survey.

In 2010, if any Stateline 3 turbines are built, the certificate holder shall conduct an aerial survey within a 2-mile buffer of Stateline 1, 2 and 3 turbines to determine nest occupancy by ferruginous hawks. In addition, the certificate holder shall conduct a minimum of one ground survey of ferruginous hawk nests to determine number of young and nesting success.

Given the very low buteo nesting densities in the area, statistical power to detect a relationship between distance 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.

If analysis of the raptor nesting data indicates any reduction in nesting success by the target raptor species within two miles of the facility, the certificate holder shall implement appropriate mitigation, subject to the approval of the Department of Energy. At a minimum, if the surveys reveal that a target raptor species has abandoned a nest or territory within ½ mile of the facility, or has not fledged any young over any two survey years, the certificate holder shall assume the abandonment or unsuccessful fledging is the result of the project unless another cause can be demonstrated conclusively. Based on that assumption, the certificate holder shall implement appropriate mitigation. In addition, if the data indicate clear evidence of displacement or disturbance of target raptor nesting species between ½ mile and 2 miles from the facility, the certificate holder shall implement appropriate mitigation.

For ferruginous hawks, appropriate mitigation may include creation, maintenance and monitoring of nesting platforms; specifically, eight nesting platforms would be created a minimum of 2 miles away from turbines for every ferruginous hawk nest assumed or shown to be affected.

Due to the difficulty in replacing nesting habitat for Swainson's hawks, appropriate mitigation may include determining the status of the tree structures currently supporting Swainson's hawks within three miles of the turbines and, with landowner approval, implementing protection measures to retain those structures and to protect existing nest trees. This may include fencing to protect existing trees or spraying black locust trees for insect infestation. It may be appropriate to recruit native tree species.

7. Burrowing Owl Surveys

The objectives of owl surveys are to estimate the size of the local breeding population of burrowing owls in the vicinity of the facility and to determine whether operation of the facility results in a reduction of nesting activity or nesting success in the local burrowing owl population.

Given the expected small sample size of active burrowing owl nests within 1000 feet of the facility, 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. No burrowing owls were observed within 1000 feet of the proposed Stateline 1 turbines during the 2001 spring pre-construction surveys. Therefore, there is no ability to make any statistical or descriptive inferences on burrowing owl displacement or disturbance impacts to burrowing owls in Oregon.

For Stateline 1 and 2 facilities, the certificate holder shall conduct burrowing owl surveys during the breeding season within suitable grassland habitat in association with the fatality monitoring described above in section 4. For each monitoring year, the certificate holder shall conduct a minimum of two surveys for burrowing owls to obtain estimates of burrowing owl nest density near the turbines. For these surveys, the certificate holder shall follow a protocol developed in consultation with ODFW. Taped burrowing owl vocalizations will be played to enhance the ability to detect burrowing owls. Two historic nest sites within the Oregon project area will be checked for use. The burrow and an adjacent 100 meters will be surveyed for sign of activity and alternate nest sites. Based on the results of these surveys after any two years[13] and data from the standardized carcass searches, the Department of Energy may require the certificate holder to conduct additional burrowing owl nest surveys or other related surveys (e.g., radio-tagging owls) or to provide mitigation. During the burrowing owl surveys, observers shall record and document detections of Washington ground squirrels (scat, holes and live detections).

For Stateline 3 facilities, the certificate holder shall conduct a burrowing owl survey in 2008 for known active or historic burrowing owl nests and any newly discovered nests within 1000 feet of the Stateline 3 wind turbines.

8. Avian Use Surveys

During each standardized carcass search, as described in section 4 above, observers will record birds detected in a ten-minute period at approximately one-third of the turbines within the carcass search plots (e.g., one point count station per carcass search plot which may consist of two to four turbines) using standard variable circular plot point count survey methods. Additional observations of species of concern will be made if observed during the carcass searches, but

[13] For Stateline 1 or 2.

collecting this information is secondary to the actual searching for carcasses so the searchers are not distracted from their main task of finding carcasses.

For Stateline 3, observers shall record observations of birds perching on aboveground transmission line conductors and support structures in the vicinity of the turbines being searched. Observers shall document number of perching birds observed, species, location and whether the perching was on a pole or a conductor. Observers shall report any fatalities observed below or near transmission lines.

9. FPL's Stateline Wind Project Wildlife Response and Reporting System

FPL's Stateline Wind Project Wildlife Response and Reporting System is a monitoring program set up for searching for and handling avian and bat casualties found by maintenance personnel. A description of this system and associated data forms used for the Vansycle Ridge Wind Project are found in FPL's application for a site certificate (Attachment P-6, Appendices B and C).

This system has been in place at the Vansycle project since early 2000, and a similar system is in place for Stateline 1 and Stateline 2. Construction and maintenance personnel will be trained in the methods. This monitoring program includes both reporting of carcasses discovered incidental to construction and maintenance operations ("incidental finds") and reporting of carcasses discovered under a standardized search protocol for an area within approximately 50 meters of the turbines, measured from the base of the tower ("protocol searches").

For Stateline 1, a sample of approximately 45 turbines not included in the standardized carcass searches will be chosen to be included in protocol searches in each Stateline 1 monitoring year. The certificate holder shall select this sample from the overall Stateline Wind Project in Oregon and Washington, with at least 13 of the sampled turbines located in Oregon.

For Stateline 2, the certificate holder shall select a sample of seven Stateline 2 turbines not included in the standardized carcass searches to include in protocol searches in each Stateline 2 monitoring year.

For Stateline 3, the certificate holder shall select a sample of approximately 15 percent of the Stateline 3 turbines that are built by December 31, 2007, and that are not included in the standardized carcass searches.

All carcasses discovered by maintenance personnel will be photographed and recorded. If maintenance personnel find carcasses within the search plots for protocol searches, they will notify a project biologist who will collect the carcasses. If maintenance personnel discover incidental finds at turbines that are not within search plots for the standardized carcass searches described in section 4, they will notify a project biologist who will collect the carcasses. If maintenance personnel discover carcasses within search plots for the standardized carcass searches described in Section 4, they will leave the carcasses undisturbed, unless the carcass is a state or federally threatened or endangered or otherwise protected species. The certificate holder shall coordinate collection of state endangered, threatened or protected species with ODFW. The certificate holder shall coordinate collection of federal endangered, threatened or protected species with the USFWS.

10. Statistical Analysis Methods for Fatality Data

The estimate of the total number of wind facility-related fatalities will be based on:

(1) Observed number of carcasses found during standardized carcass searches for which the cause of death is either unknown or is attributed to the facility.

(2) Searcher efficiency expressed as the proportion of planted carcasses found by searchers

(3) Non-removal rates expressed as the length of time a carcass is expected to remain in the study area and be available for detection by the searchers

Definition of Variables

The following variables are used in the equations below:

c_i	the number of carcasses detected at plot i for the study period of interest[14] for which the cause of death is either unknown or is attributed to the facility
n	the number of search plots
k	the number of turbines searched (includes the turbines centered within each search plot and a proportion of the number of turbines adjacent to search plots to account for the effect of adjacent turbines on the 63-meter search plot buffer area)
$\bar{c}$	the average number of carcasses observed per turbine per year
s	the number of carcasses used in removal trials
s_c	the number of carcasses in removal trials that remain in the study area after 40 days
se	standard error (square of the sample variance of the mean)
t_i	the time (days) a carcass remains in the study area before it is removed
$\bar{t}$	the average time (days) a carcass remains in the study area before it is removed
d	the total number of carcasses placed in searcher efficiency trials
p	the estimated proportion of detectable carcasses found by searchers
I	the interval between searches in days
$\hat{\pi}_i$	the estimated probability that a carcass is both available to be found during a search and is found (i = 1 and 2; two estimators)
m_i	the estimated annual average number of fatalities per turbine per year, adjusted for removal and observer detection bias (i = 1 and 2; two estimators)

[14] The study period is one year, except for fatality monitoring of Stateline 3 turbines. For Stateline 3, the study period includes only the spring, summer and fall seasons.

Observed Number of Carcasses

The estimated average number of carcasses ($\bar{c}$) observed per turbine (or guyed met tower) is:

$$\bar{c} = \frac{\sum_{i=1}^{n} c_i}{k}$$

The final estimate of $\bar{c}$ and its standard error are to be calculated using bootstrapping (Manly *et al.* 1997[15]). Bootstrapping is a computer simulation technique that is useful for calculating point estimates, variances and confidence intervals for complicated test statistics. The certificate holder shall calculate the mean of at least 5000 bootstrap estimates. The standard deviation of the bootstrap estimates of $\bar{c}$ is the estimated standard error of $\bar{c}$ (that is, $se(\bar{c})$).

Estimation of Carcass Removal

Estimates of carcass removal are used to adjust carcass counts for removal bias. Mean carcass removal time ($\bar{t}$) is the average length of time a carcass remains at the site before it is removed:

$$\bar{t} = \frac{\sum_{i=1}^{s} t_i}{s - s_c}$$

This estimator is the maximum likelihood estimator assuming that the removal times follow an exponential distribution and that there is right-censoring of data. Any trial carcasses still remaining at 40 days are collected, yielding censored observations at 40 days. If all trial carcasses are removed before the end of the trial, then s_c is 0, and $\bar{t}$ is just the arithmetic average of the removal times.

The certificate holder shall use bootstrapping to calculate the final estimate of $\bar{t}$, the estimated standard error and 90% confidence limits. At least 5000 bootstrap iterations will be used. The standard deviation of the bootstrap estimates of $\bar{t}$ is the estimated standard error of $\bar{t}$ (that is, $se(\bar{t})$). Removal rates will be estimated by major habitat, carcass size (large and small) and season.

Estimation of Searcher Efficiency

Searcher efficiency rates (that is, the rate of observer detection) are expressed as p, the proportion of trial carcasses that are detected by searchers. The standard error (square of variance of mean) and 90% confidence limits will be calculated by bootstrapping. At least 5000 bootstrap iterations will be used. Observer detection rates will be estimated by major habitat, carcass size and season.

Estimation of Total Number of Facility-Related Fatalities

The certificate holder shall provide two estimators for the mean number of fatalities per turbine per year. Both estimators adjust the observed number of fatalities by dividing the number of observed carcasses by an estimate of the probability that a carcass is available to be

[15] Manly, B.F.J., *Randomization, Bootstrap and Monte Carlo Methods in Biology* (2nd edition), Chapman and Hall, New York (1997).

picked up during a fatality search (i.e, the probability the carcass is not removed by a scavenger) and is observed (the probability of detection).

The first estimator of total number of annual facility-related fatalities (m_1) is calculated by:

$$m_1 = \frac{\bar{c}}{\hat{\pi}_1}$$

where

$$\hat{\pi}_1 = \begin{cases} \frac{\bar{t} * p}{I} & \text{if } I > \bar{t} \\ p & \text{if } I \leq \bar{t} \end{cases}$$

This first estimator appears to provide an underestimate of true mortality when the interval between searches is similar to the mean carcass removal time. For this reason, the certificate holder shall calculate the mean number of fatalities per turbine per year[16] using a second estimator, as follows:

$m_2 = \frac{\bar{c}}{\hat{\pi}_2}$ where $\hat{\pi}_2$ includes adjustments for both observer detection and scavenging bias and assuming that the carcass removal times t_i follow an exponential distribution.

This second estimator does not underestimate true mortality when the mean removal time is similar to or larger than the interval between searches. This estimator will be used when comparisons are made to determine if mitigation should be implemented as described in Section 12.

The certificate holder shall calculate this estimate separately for each of five categories: 1) all birds, 2) small birds, 3) large birds, 4) raptors, 5) bats and 6) grassland birds.[17] Estimates will be provided separately for turbines and any permanent guyed met towers. The certificate holder shall calculate the "all birds" estimate and the "small birds" estimate for all species and, separately, for only those species protected by law. Modifications to these estimates will be made to incorporate the varying search efforts by season (monthly in winter and summer, twice monthly in fall and spring). In addition, the certificate holder shall estimate the number of facility-related fatalities separately for turbines that are located on land that does not support grassland steppe or low shrub/shrub steppe habitat and for turbines that are located on land that does support grassland steppe or low shrub/shrub steppe habitat. Additional modifications may be made, subject to approval by the Department of Energy.

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[16] In the case of Stateline 3, the calculation would be the mean number of fatalities per turbine during the study period (spring, summer and fall seasons). This will also be expressed as the mean number of fatalities per turbine per year for comparison purposes by assuming the Stateline 1 and 2 winter fatality rates apply to the Stateline 3 sampled turbines.

[17] Grassland nesting species include grasshopper sparrow, savannah sparrow, vesper sparrow, short-eared owl, burrowing owl, northern harrier, horned lark, western meadowlark, long-billed curlew, ring-necked pheasant, Hungarian partridge, chukar partridge, California quail and any other resident grassland nesting bird species that is found in the area.

The variance of m is difficult to estimate due to the products and ratios of random variables in the equation above. The certificate holder may estimate the variance and confidence intervals using the computer intensive technique of bootstrapping (Manly 1997, Barnard 2000).

11. Data Reporting

The certificate holder will report the monitoring data and analysis to the Council. This report may be included in the annual report required under OAR 345-026-0080 or may be submitted as a separate document at the same time the annual report is submitted. In addition, the certificate holder shall provide to the Council any data or record generated in carrying out this monitoring plan upon request by the Council.

The certificate holder shall notify USFWS and ODFW immediately in the event that any federal or state endangered or threatened species are taken.

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 of Energy will give reasonable public notice and make the report available to the public. The notice will specify a time in which the public may submit comments to the Department. The Technical Advisory Committee established under the Walla Walla County conditional use permit may offer comments about the results of monitoring programs in Oregon.

12. Mitigation

The selection of the mitigation actions that the certificate holder may be required to implement under this plan should allow for flexibility in creating appropriate responses to monitoring results that cannot be known in advance. If mitigation is needed, the certificate holder shall propose appropriate mitigation actions to the Department of Energy and shall carry out mitigation actions approved by the Department of Energy. In addition to mitigation described above, possible mitigation actions include but are not limited to the measures discussed in this section.

Grassland Nesting Species

Grassland nesting species include grasshopper sparrow, savannah sparrow, vesper sparrow, short-eared owl, burrowing owl, northern harrier, horned lark, western meadowlark, long-billed curlew, ring-necked pheasant, Hungarian partridge, chukar partridge, California quail and any other resident grassland nesting bird species that is found in the area. The certificate holder shall determine significant impact to grassland nesting species based on the fatality monitoring program discussed above. The certificate holder shall calculate the average annual fatality rate separately for turbines and, if permanent guyed met towers are used, for permanent guyed met towers. If the average annual fatality rate[18] is greater than 1.25 fatalities per turbine or guyed met tower per year for all species combined or if the average annual fatality rate is greater than 0.5 fatalities per turbine or guyed met tower per year for a single grassland nesting bird species, then the certificate holder shall assume that a significant impact on habitat has occurred and shall implement appropriate mitigation. The certificate holder shall include in this estimate any grassland nesting species fatality that is observed, even if it is observed during the non-nesting period. The certificate holder shall include in the estimate all carcasses unidentified as to

[18] The "average annual fatality rate" is the average of the two annual estimates of fatalities.

species and for which there is no evidence to rule out the carcass as one of the grassland species listed above.

The certificate holder shall determine the need for mitigation for turbine towers and guyed meteorological towers separately. If the analysis of turbine fatality data indicates that mitigation for grassland nesting species is required, the certificate holder shall enhance sufficient habitat to support the number of grassland nesting birds affected. The number of birds affected includes the number of fatalities above the all species threshold (1.25 fatalities/turbine/year) and the number of fatalities above the single species threshold (0.5 fatalities/turbine/year). The certificate holder shall protect that enhanced habitat for the life of the facility. The certificate holder shall propose the amount of habitat enhancement based on expected densities and habitat requirements of these species as described in the literature and studies of the Stateline facility and other wind energy facilities in the Northwest. If the analysis of guyed met tower fatality data indicates that mitigation for grassland nesting species is required, the certificate holder shall implement appropriate mitigation such as 1) enhancing sufficient habitat to support the number of grassland nesting birds affected (determined as above for turbine-related fatalities), 2) moving the guyed met towers associated with high fatalities or 3) changing the design of the met towers to reduce fatality risk.

If the mitigation threshold for grassland nesting species is not met but fatalities of a sensitive species, such as grasshopper sparrow, burrowing owl or long-billed curlew are at a level of concern, the Department of Energy may require the certificate holder to implement mitigation for that species.

Raptors

The certificate holder shall determine significant impact to raptors (excluding burrowing owls, short-eared owls and northern harriers, which are considered under grassland nesting species) based on the fatality monitoring program data and any other raptor fatalities found. If more than an average of two raptor fatalities are found per year, then the certificate holder shall assume that a significant impact on raptor habitat has occurred and shall implement appropriate mitigation.

To mitigate for a significant impact on raptor habitat, the certificate holder shall provide funding to fence draw bottom areas. The certificate holder shall fence draw bottom areas within the facility site or up to 15 miles away within Oregon. The objective of fencing is to retain or establish recruitment of deciduous trees for future raptor nesting. The certificate holder shall include funding for annual monitoring and maintenance of the fencing for the life of the facility. For each raptor fatality above the mitigation threshold, the linear length of fencing, at a minimum, shall be sufficient to fence 1,000 feet of draw bottom[19] that has trees or the potential to grow trees. If no suitable nesting structures are present in the fenced areas, the certificate holder shall plant 10 trees in each fenced area.

If the mitigation threshold is not met but fatalities of a sensitive raptor species, such as ferruginous hawk or Swainsons's hawk are at a level of concern, the Department of Energy may require the certificate holder to implement mitigation for that species.

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[19] The fenced area would be about 50 feet wide for most intermittent streams in the area.

Other Bird Species and Bats

Mitigation measures for grassland nesting birds and for raptors, if implemented, would also benefit other bird species and bats. There is no mitigation threshold for these species. However, if fatalities to these species are higher than expected and are at a level of concern, the Department of Energy may require the certificate holder to implement mitigation for these species.

13. Amendment of the Plan

This Oregon Wildlife Monitoring Plan may be amended from time to time by agreement of the certificate holder and the Council. Such amendments may be made without amendment of the site certificate. The Council authorizes the Department of Energy to agree to amendments to this plan and to mitigation actions that may be required under this plan. The Department of Energy 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.