



Oregon

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To: Oregon Energy Facility Siting Council

From: Sarah Esterson, Senior Siting Analyst

Date: December 12, 2018

Subject: Agenda Item D (Action Item) – Carty Generating Station – Council Review of Proposed Order on Request for Amendment 1 for the December 14, 2018 EFSC Meeting – Supplemental Staff Report

Attachments: Attachment 1: Comments on Proposed Order

Introduction

On November 30, 2018, the Oregon Department of Energy (Department) provided to the Energy Facility Siting Council (Council) a staff report in preparation of Agenda Item D for the December 14, 2018 Council meeting. The staff report summarized the Department's recommendations and comments received at the time on the Proposed Order on Request for Amendment 1 (proposed order) of the Carty Generating Station site certificate. Comments and requests for contested case on the proposed order were due by 5:00 p.m. on December 10, 2018.

During the dual comment period and opportunity to request a contested case, which extended from November 9 through December 10, 2018, the Department received 7 comments, 5 of which were described and provided in the November 30, 2018 staff report. This supplemental staff report is intended to support Council's review of the 2 additional comments received by the December 10, 2018 deadline, from Portland General Electric (PGE or certificate holder) and the Oregon Department of Environmental Quality. There were no requests for contested case nor comments from the public received.

Council Scope of Review

Because the original amendment request was submitted in August 2016, the amendment review process is based on Oregon Administrative Rule (OAR) 345, Division 27 in effect at the time that the amendment was initially submitted to the Department. Under those rules, the Department prepares and releases a proposed order only, not a draft proposed order, and there is only a combined opportunity to submit written comments and requests for contested case on the proposed order. Under the old rules, there is not an opportunity for a public hearing. All other applicable rules, such as Council standards, are those in effect at the time the Council decides on the merits of the amendment request. As described above, there were no public comments nor requests for contested case on the proposed

order received by the Department. In this case, under the old rules which apply to the review and processing of this amendment request, OAR 345-027-0070(9) contains the scope of Council's review of the proposed order. It states:

"If there is no request for a contested case proceeding as described in section (6) or subsection (8)(b), the Council, may adopt, modify or reject the proposed order based on the considerations described in section (10). In a written order, the Council shall either grant or deny issuance of an amended site certificate. If the Council grants issuance of an amended site certificate, the Council shall issue an amended site certificate, which is effective upon execution by the Council Chair and by the applicant."

Therefore, this supplemental staff report presents the Department's evaluation of whether the comments received provide a basis for recommending to Council that the proposed order be adopted, or adopted with modifications, as the final order.

Staff Evaluation of Proposed Order Comments

Certificate Holder Comments

The certificate holder provided comments and specific recommended edits in response to their comments within a Word version of the proposed order. Both sets of comments are provided as Attachment 1 to this staff report.

Comment 1

"Page 16, line 13 – PGE requests that the phrase 'up to 3 miles' be replaced with 'approximately 3 miles' to clarify that PGE would be authorized to construct the 34.5 kV transmission line anywhere within the approved corridors as presented on Figure 1 of the site certificate. It would be possible for micrositing within the approved corridors to result in a transmission line that would be slightly more than 3 miles depending on the number of significant figures used to represent the length."

Comment 1 Evaluation

In Section III.A. *General Standard of Review* of the proposed order, the Department recommends Council impose Condition 6.26 to align with OAR 345-025-0010(5). OAR 345-025-0010(5) specifies that Council must authorize construction and operation of transmission lines (or pipelines) within approved corridors. Condition 6.26 is intended to establish the approved transmission line corridor, in length and width, as represented in the amendment request for the proposed 34.5 kilovolt (kV) transmission line.

In comments received on the proposed order, the certificate holder requests to modify the description of the length of the transmission line within recommended Condition 6.26 from "up to 3 miles" to "approximately 3 miles." The certificate holder is not requesting to change the proposed routes or initiation and termination locations of the proposed 34.5 kV transmission line. Therefore, the Department recommends Council modify Condition 6.26, as follows, to provide necessary flexibility in overall transmission length and consider the change not to be material or substantive:

Condition 6.268: The certificate holder is authorized to construct ~~up to approximately~~ 3 miles of a 34.5 kV transmission line anywhere within the approved corridors, subject to the conditions of the site certificate. The approved corridors ~~are~~ is 160-feet in width and extend between 2.25 and 3 miles of three routes as described in RFA1 Exhibit B and as presented on Figure 1 of the site certificate.

[Site Specific Condition OAR 345-025-0010(5)] [AMD1]

Comment 2

“Page 26, line 19 and 20 – The Proposed Order states that the transmission routes and Grassland Switchyard expansion would all be sited on sagehill fine sandy loam soil; however, additional soil types are also included. Figure I-1 shows that, in addition to sagehill fine sandy loam, those components are also sited on touton fine sandy loam, royal silt loam, and dune soils. Recommend deleting statement and just referencing Figure I-1.”

Comment 2 Evaluation

Section III.D. *Soil Protection* of the proposed order presents the Department’s evaluation of potential impacts to soils from construction and operation of the proposed Carty Solar Farm and its supporting facilities. In comments received on the proposed order, the certificate holder requests that the description of soil types within the site boundary be updated for accuracy. The Department confirms that the certificate holder’s comments are consistent with information provided in Request for Amendment 1 (RFA1) Exhibit I. Therefore, the Department recommends Council modify the description of soil types requested by the certificate holder and consider that the change is not material or substantive. Recommended modifications within Section III.D. *Soil Protection* are as follows:

Page 26, lines 19 and 20:

~~According to Figure I-1 provides the soil classifications for, the various transmission routes and Grassland Switchyard expansion would all be sited on land classified as sagehill fine sandy loam soil.~~

Comment 3

“Page 66, line 17 – PGE recommends deleting the statement “which does not contain water usable for agriculture irrigation”. PGE did not make this statement in our Request for Amendment No. 1.”

Comment 3 Evaluation

In Section III.E. *Land Use* of the proposed order, the Department evaluates the certificate holder’s Goal 3 exception for the proposed Carty Solar Farm and its supporting facilities. In an evaluation of potential impacts to productive agriculture within the analysis area, the Department describes existing water rights and the lack of available irrigation infrastructure within the proposed solar facility site. In this evaluation, the Department describes that water contained within Carty Reservoir is not suitable for irrigation. In comments received on the proposed order, the certificate holder requests that, for accuracy, the statement regarding Carty Reservoir water and its suitability for irrigation be updated. Based on the review of RFA1 and PGE’s comments, the Department agrees that the referenced

statement was not included in the amendment request and was a mischaracterization. The Department recommends Council modify the proposed order as follows and consider the change not to be material or substantive:

Page 66, line 17:

PGE asserts that transferring water rights to the site would require drying up land that is more suitable for farming than the land within the site. Irrigation could not occur unless the infrastructure necessary to bring irrigation water to the site were extended from existing irrigated lands. Given the distance of the closest irrigated lands to the site (1.7 miles), and the existence of the Carty Reservoir ~~(which does not contain water usable for agriculture irrigation)~~ between the proposed site and these irrigated lands, PGE asserts that irrigation infrastructure could not be readily and efficiently extended to the site.

Comment 4

“Page 76, line 15 – This section states that the nearest protected area is located approximately 7- miles from the proposed amended site boundary; however, the nearest protected area is actually 2.7-miles from the proposed amended site boundary. PGE recommends deleting the sentence starting on line 14 and suggests including language similar to that used in the evaluation of construction noise on recreational opportunities (page 111, lines 5 through 7).”

Comment 4 Evaluation

In Section III.F. *Protected Areas* of the proposed order, the Department evaluates potential impacts of construction and operation of the facility at protected areas within the analysis area. In comments received on the proposed order, the certificate holder notes that the evaluation of potential construction-related noise impacts at the closest protected area was described based on a distance of 7- miles, where the preceding text describes the closest protected area located at a distance of 2.7 miles from the proposed amended site boundary. Based on review of the section and the certificate holder’s comments, the Department agrees that the reference to the location of the nearest protected area should be 2.7 instead of 7 miles and that based on the certificate holder’s construction noise analysis, the discussion of potential construction related noise impacts should be modified for accuracy. The Department recommends Council modify the proposed order as follows:

Page 76, line 15:

The proposed Carty Solar Farm would generate construction-related noise. Construction related noise would be short-term and intermittent and would result from site clearing, excavation, foundation work, and equipment installation. Construction equipment noise levels are estimated to be less than 50 A-weighted decibels [dBA] at a distance of 5-miles, which is equivalent to noise levels of light traffic. ~~Because the nearest protected area is located approximately 7 miles from the proposed amended site boundary, anticipated construction-related noise levels substantially less than 50 dBA due to noise attenuation. The Boardman Research Natural Area is located 2.7 miles from the proposed amended site boundary; therefore, anticipated construction-related noise levels would be expected to be greater than 50 dBA....~~

~~Due to the relatively low noise levels anticipated given the distance from the proposed amended site boundary and nearest protected area,~~ Based on the distance of construction-related noise, and short-term, intermittent nature of construction activities, and relatively quiet noise levels, the Department recommends that Council continue to find that construction of the facility, with proposed changes, would not be likely to result in significant adverse noise impacts at the Boardman Research Natural Area.

The proposed modification to the impact assessment, as presented above, would not result in changes to recommended findings that construction related noise would not be expected to result in significant adverse impacts at protected areas. The analysis, as presented in the proposed order, describes potential noise impacts of 50 dBA (i.e. noise level of light traffic) at a distance of 5-miles, and describes previously imposed conditions that would further reduce construction related noise. While the distance reference would change, the potential impacts and level of significance would not be expected to differ. Therefore, the Department recommends that this change not be considered material or substantive.

Comment 5

“Page 78, line 17 and 18 and Page 121, line 5 and 6 – PGE recommends that the Department add reference to Condition 9.5 which requires PGE to maintain or repair erosion concerns during operation. As currently written, the Proposed Order seems to imply that wastewater from both construction and operation would be managed in accordance with the BMPs described in the NPDES 1200-C permit; however, that permit is only applicable during construction and immediately following restoration until the permit is terminated. Once the permit is terminated, PGE will manage erosion concerns in accordance with Condition 9.5.”

Comment 5 Evaluation

Section III.D. *Soil Protection* and III.N. *Waste Minimization* of the proposed order present an evaluation of potential impacts to soils and adjacent land uses from facility related stormwater disposal. In comments received on the proposed order, the certificate holder requests that clarification of applicable requirements and conditions be provided for the following statements, as referenced in both sections: “Any potential wastewater generated from stormwater runoff would be managed in accordance with the BMPs described in the NPDES 1200-C / Erosion and Sediment Control Plan.”

Based on review of the proposed order and the certificate holder’s comments, the Department agrees that stormwater management would include implementation of best management practices as required by the NPDES 1200-C during construction and part of operation, until the NPDES 1200-C permit is terminated per authorization by the Oregon Department of Environmental Quality. During ongoing operations, once the NPDES 1200-C permit is terminated, the certificate holder would continue to manage stormwater and stormwater disposal in accordance with Condition 9.5. The NPDES 1200-C is a construction related permit that applies until all constructed related impacts are deemed restored, and therefore is misrepresentative to refer to the NPDES 1200-C permit in relation to ongoing operational stormwater management. The Department recommends Council modify the proposed order, as follows, and not consider the change material or substantive:

Page 78, line 17 and 18 and Page 121, line 5 and 6

Any potential wastewater generated from construction or operational stormwater runoff would be managed in accordance with the BMPs described in the NPDES 1200-C / Erosion and Sediment Control Plan and Condition 9.5, respectively.

Comment 6

“Page 83, line 3 and 4 – PGE suggests language to clarify that the Unit 1 decommissioning cost is based on 3rd quarter 2011 dollars and Carty Solar Farm would be based on 3rd quarter 2016 dollars.”

Comment 6 Evaluation

Section III.G. *Retirement and Financial Assurance* of the proposed order presents the Department’s evaluation of the form and amount necessary for site restoration of the proposed Carty Solar Farm and its supporting facilities. Based on the retirement cost estimate for the proposed Carty Solar Farm and its supporting facilities, in the proposed order the Department recommends Council amend Condition 15.1 as follows:

Condition 15.1, as amended: Before beginning construction of ~~each generating block~~, the certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The initial bond or letter of credit amount for Unit 1 is \$7.884 million (in 3rd Quarter 2011 dollars), to be adjusted to the date of issuance, and adjusted on an annual basis thereafter, as described in sub-paragraph (a) of this condition. The initial bond or letter of credit amount for the Carty Solar Farm and its supporting facilities ~~Block 2~~ is ~~\$6.670~~ 2.7 million (in 3rd Quarter 2016~~1~~ dollars) to be adjusted to the date of issuance, and adjusted on an annual basis thereafter, as described in sub-paragraph (a) of this condition. [AMD1]

- a. The certificate holder may adjust the amount of the bond or letter of credit based on the final design configuration of the facility and turbine types selected. Any revision to the restoration costs should be adjusted to the date of issuance as described in (b), and is subject to review and approval by the Department.
- b. The certificate holder shall adjust the amount of the bond or letter of credit, using the following calculation and subject to approval by the Department.
 - i. Adjust the amount of the bond or letter of credit amount (~~expressed in 3rd Quarter 2011 dollars~~Q3 2016 dollars) to present value, using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of Administrative Services’ “Oregon Economic and Revenue Forecast” or by any successor agency (the “Index”) and using the 3rd Quarter 2016~~1~~ index value and the quarterly index value for the date of issuance of the new bond or letter of credit. If at any time the Index is no longer published, the Council shall select a comparable calculation to adjust 3rd Quarter 2016~~1~~ dollars to present value. [AMD1]
 - i. Round the resulting total to the nearest \$1,000 to determine the financial assurance amount.
- c. The certificate holder shall use a form of bond or letter of credit approved by the Council.
- d. The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.

- e. The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under Condition VI.4.
- f. The bond or letter of credit shall not be subject to revocation or reduction before retirement of the facility site.

[Final Order IV.G.2.9] [Mandatory Condition OAR 345-0257-0020(8)] [AMD1]

In comments received on the proposed order, the certificate holder requests that Condition 15.1 be amended to clarify the quarter and year that applies to the inflation adjustment of the Unit 1 bond or letter of credit, which was satisfied prior to construction of Unit 1. Based on review and the certificate holder's comments, the Department recommends Council administratively amend Condition 15.1 to clarify the year and quarter that apply to the inflation adjustment for Unit 1 (3rd Quarter 2011), which the certificate holder has already satisfied, and the proposed Carty Solar Farm, as follows:

Condition 15.1, as amended: Before beginning construction of each generating block, the certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit naming the State of Oregon, acting by and through the Council, as beneficiary or payee.

- i. The initial bond or letter of credit amount for Unit 1 is \$7.884 million (in 3rd Quarter 2011 dollars), to be adjusted to the date of issuance, and adjusted on an annual basis thereafter, as described in sub-paragraph (a) of this condition. ~~The initial bond or letter of credit amount for Block 2 is \$6.670 million (in 3rd Quarter 2011 dollars) to be adjusted to the date of issuance, and adjusted on an annual basis thereafter, as described in sub-paragraph (a) of this condition.~~
 - a. The certificate holder may adjust the amount of the bond or letter of credit based on the final design configuration of the facility and turbine types selected. Any revision to the restoration costs should be adjusted to the date of issuance as described in (b), and is subject to review and approval by the Department.
 - b. The certificate holder shall adjust the amount of the bond or letter of credit, using the following calculation and subject to approval by the Department.
 - i. Adjust the amount of the bond or letter of credit amount ~~(expressed in 3rd Quarter 2011 dollars)~~ to present value, using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of Administrative Services' "Oregon Economic and Revenue Forecast" or by any successor agency (the "Index") and using the ~~3rd Quarter 2011~~ index value and the quarterly index value for the date of issuance of the new bond or letter of credit. If at any time the Index is no longer published, the Council shall select a comparable calculation to adjust ~~3rd Quarter 2011~~ dollars to present value.
 - ii. Round the resulting total to the nearest \$1,000 to determine the financial assurance amount.
 - c. The certificate holder shall use a form of bond or letter of credit approved by the Council.
 - d. The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.
 - e. The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under Condition ~~14.2~~ VI.4.
 - f. The bond or letter of credit shall not be subject to revocation or reduction before retirement of the facility site.
- ii. The initial bond or letter of credit amount for the Carty Solar Farm and its supporting facilities

is \$2.7 million (in 3rd Quarter 2016 dollars), to be adjusted to the date of issuance, and adjusted on an annual basis thereafter, as described in sub-paragraph (i)(a) and (i)(b) of this condition.

[Final Order IV.G.2.9] [Mandatory Condition OAR 345-0257-0020(8)] [AMD1]

Comment 7

“Page 99, line 13 – PGE requests that language be modified to reflect that maintenance of Category 1 habitat is dependent on the continued presence of Washington ground squirrels which is not under PGE’s control.”

Comment 7 Evaluation

Section III.I. *Threatened and Endangered Species* of the proposed order includes an evaluation of potential impacts to threatened and endangered species from construction and operation of the proposed Carty Solar Farm and its supporting facilities. This section includes a summary of previously imposed conditions and recommended amended conditions. Specifically, the summary of Condition 10.1, describes that, during operations, the certificate holder shall implement a Wildlife and Habitat Mitigation and Monitoring Plan (WHMMP), as reviewed and approved by the Department in consultation with the Oregon Department of Fish and Wildlife prior to construction. The summary also describes that the certificate holder’s mitigation approach, to satisfy the Council’s Fish and Wildlife Habitat standard, includes compensatory mitigation in the form of a habitat mitigation area which includes Category 1 habitat that would be maintained by the certificate holder.

In comments on the proposed order, the certificate holder requests that the summary of Condition 10.1 be modified to clarify that Category 1 habitat would only be maintained within the habitat mitigation area to the extent that active Washington ground squirrel (WGS) burrows are identified, as WGS are known to disperse to other areas, which are outside of the certificate holder’s control. It is the presence of active WGS burrows that qualifies habitat as Category 1, and as such, if the WGS were to abandon an area it would no longer be considered Category 1 by ODFW definition. To be clear, the proposed amended facility could not impact Category 1 habitat (and in fact, could not impact Category 1 habitat in compliance with ODFW’s Fish and Wildlife Habitat Mitigation Policy), and does not need to mitigate for Category 1 habitat. The summary of Condition 10.1, in reference to the certificate holder’s mitigation approach for maintaining Category 1 habitat was not intended to impose restrictions beyond those included in the draft amended WHMMP. Based upon review of RFA1 Exhibit Q, the Department considers the referenced statement a mischaracterization of the certificate holder’s mitigation approach and recommends Council modify the proposed order, as follows, to remove the statement due to inaccuracy:

Page 99, line 13

Condition 10.1, as amended, requires that the certificate holder, prior to construction, receive approval from the Department in consultation with ODFW of a final WHMMP, which includes HMA monitoring requirements. The proposed HMA, which the certificate holder represents it will maintain as part of its mitigation approach, includes Category 1 habitat and Category 2 habitat. ~~which the certificate holder represents it will maintain as part of its mitigation approach.~~ The WHMMP also requires that the certificate holder comply with its Avian

Protection Plan, which includes design standards for installation of perch guards and installation of alternative perch locations

Comment 8

“Page 106, line 26 and 27 – PGE suggests language to clarify that Site 35MW19 was originally recorded in the 1970’s during surveys for the Carty and Pebble Springs Reservoirs. As currently written, it seems to imply that the site was originally recorded during surveys for the Carty Generating Station which are different than the surveys conducted for Carty Reservoir.

Comment 8 Evaluation

Section III.K. *Historic, Cultural and Archeological Resources* of the proposed order presents an evaluation of potential impacts to resources within the site boundary from construction and operation of the proposed Carty Solar Farm and its supporting facilities; and, evaluates the certificate holder’s request to remove conditions previously imposed for protection of a previously-investigated archeological site (35MW19) identified as potentially occurring within the site boundary. In comments on the proposed order, the certificate holder requests that a description of the archeological site included in the proposed order be modified to clarify timing of identification, as follows:

“Site 35MW19 was originally recorded during archaeological work conducted in the 1970’s during survey work for in the Carty Generation Station and Pebble Springs Reservoir Areas.”

Based on review of RFA1 Exhibit S, the Department agrees that that the certificate holder’s comments are consistent with information in the amendment request and recommends Council modify the proposed order, as presented above, and consider that the change is not material or substantive. As described in the proposed order, no evidence of the site has been discovered during PGE’s archaeological investigations.

Comment 9

“Page 107, line 8 and 9 – PGE suggests language to clarify that the concurrence letter issued by the State Historic Preservation Office (SHPO) on June 13, 2016 was not specific to the Carty Solar Farm. The June 13, 2016 concurrence letter (included as Appendix S-1 in RFA No.1) pertained to road work associated with the Boardman Plant. The archaeological investigations conducted to support the Boardman Plant road work studied the entire 35MW19 site (not just the portion adjacent to the planned road work); therefore, PGE included results from the investigation to support removal of Condition 11.1 from the Carty Site Certificate. SHPO provided a concurrence letter that the Carty Solar Farm would have no effect on any significant archaeological objects or sites on December 2, 2016. The Department received copies of both concurrences from SHPO in an email from John Pouley to Sarah Esterson on March 14, 2017.”

Comment 9 Evaluation

Section III.K. *Historic, Cultural and Archeological Resources* of the proposed order presents an evaluation of potential impacts to resources within the site boundary from construction and operation of the proposed Carty Solar Farm and its supporting facilities; and, evaluates the certificate holder’s request to

remove conditions previously imposed for protection of an archeological site (35MW19) identified within the site boundary. In comments on the proposed order, the certificate holder requests that a summary of comments received from Oregon State Historic Preservation Office, in relation to the archeological site (35MW19) be modified for clarification. Based on review of SHPO's comment letter and in response to the certificate holder's comments, the Department recommends Council modify the proposed order, as follows, and consider that the changes are not material or substantive:

Page 107, line 8 and 9

On June 13, 2016, Oregon SHPO issued a concurrence letter to PGE, stating that PGE demonstrated a good faith effort in ~~relocating~~ evaluating the site 35MW19, and considering that no evidence of the site has been found in recent surveys, SHPO agreed that the site is not eligible for listing in the NRHP ~~and indicated that the proposed Carty Solar Farm will have no effect on any significant archaeological objects or sites.~~

Comment 10

"Page 108, Condition 11.6.ii – PGE recommends either reorganizing the sub-bullets or adding an "if, then" statement to clarify that sub-bullet (c) through (f) are only applicable if sub-bullet (b) is triggered."

Comment 10 Evaluation

Section III.K. *Historic, Cultural and Archeological Resources* of the proposed order presents an evaluation of potential impacts to resources within the site boundary from construction and operation of the proposed Carty Solar Farm and its supporting facilities. In the proposed order, the Department recommends Council amend Condition 11.6 requiring that, prior to construction, the certificate holder submit for review and approval by the Department, in consultation with SHPO and the Confederated Tribes of the Umatilla Indian Reservation, an amended Archeological Monitoring Plan. The recommended amended condition includes a list of requirements that the amended plan, at a minimum, include. In comments on the proposed order, the certificate holder requests that the sub-numbering of the condition be modified to clarify that specific requirements only apply in the event of an unanticipated discovery. The Department agrees with these comments and recommends Council modify Condition 11.6, as requested by the certificate holder and as presented below, and consider that the changes are not material or substantive.

Condition 11.6:

- ii. At least 45-days prior to construction of the Carty Solar Farm, provide to the Department for review and approval, in consultation with SHPO and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), an amended Archaeological Monitoring Plan for construction activities to address and mitigate impacts from exposure of unanticipated or previously unidentified cultural resources that may be exposed during construction of the Carty Solar Farm. The amended Archaeological Monitoring Plan shall include the following requirements:
 - a. The certificate holder shall coordinate with CTUIR prior to and during ground disturbing activities to determine if a tribal monitor should be onsite.
 - b. A qualified archeologist, as defined in 11.6(i)(b) of this condition, shall be mobilized to the site if unanticipated resources are discovered. If unanticipated resources are discovered, the certificate holder shall comply with 11.6(ii)(b)(1) – (4) as provided:

1. The archeological monitor will keep a daily log of construction and monitoring activities. If intact archaeological materials are encountered during the monitoring, the monitor will initiate procedures for inadvertent discovery of archaeological resources, as specified in ORS 358.920.
2. Artifacts will be examined and documented in the field and will not be collected unless authorized under the provisions of a SHPO permit, if one is obtained in the inadvertent discovery of archaeological resources process.
3. If human remains are identified during the course of construction monitoring, the monitor will initiate the procedures for Inadvertent Discovery of Human Remains, as specified in ORS 97.740-97.760.
4. The certificate holder is responsible for providing an archaeological monitoring report to the Department and SHPO after construction work is completed. The report must detail the activities of the monitor and any inadvertent discoveries encountered, along with actions taken to address them.
[AMD1]

Comment 11

“Page 123, Condition 6.5 – PGE recommends that the Condition not be amended. The Condition as originally written requires PGE to design, construct and operate the transmission line in accordance with the requirements of the National Electrical Safety Code, 1997 Edition or its successor document. Since the original Condition includes “or its successor document” it is not necessary to amend the condition to reference to the Code approved on June 3, 2011. In addition, PGE is concerned that specifically requiring compliance with the 2011 Code as a site certificate condition would require a Site Certificate amendment if the Code was updated prior to starting construction of the Carty Solar Farm.”

Comment 11 Evaluation

Section III.P.1. *Siting Standards for Transmission Lines* of the proposed order evaluates potential impacts associated with alternating current electric fields and induced currents generated by the proposed 34.5 kV transmission line. In the proposed order, the Department recommends Council amend Condition 6.5, a condition imposed to align with Site Specific Conditions at OAR 345-025-0010(4) – requiring that transmission lines be constructed in compliance with National Electric Safety Code (NESC), as follows:

Condition 6.5, as amended:

- i. The certificate holder must design, construct and operate the transmission line in accordance with the requirements of the National Electrical Safety Code (American National Standards Institute, Section C2, 1997 Edition, or its successor document).
[Final Order IV.O.2.1] [Site Specific Condition OAR 345-027-0023(4)]
- ii. The certificate holder must design, construct and operate the transmission line(s) in accordance with the requirements of the National Electrical Safety Code approved on June 3, 2011, by the American National Standards Institute.
[Site Specific Condition OAR 345-025-0010(4)] [AMD1]

In comments on the proposed order, the certificate holder requests that the condition not be amended because the previously imposed condition refers to the certificate holder’s obligation to comply with the

1997 Edition of the NESC or a successor document; and, that the recommended amended condition language referring to codes approved in 2011 is out of date. The Department acknowledges that because the previously imposed condition referred to the certificate holder's obligation to comply with a successor document, Condition 6.5 does not need to be amended. The Department recommends Council not amend Condition 6.5 and consider the change not to be material or substantive.

Comment 12

"Redline Site Certificate, Condition 5.10 – This new condition does not appear to be addressed in the Proposed Order."

Comment 12 Evaluation

In Section III.E. *Land Use* of the proposed order, the Department evaluates the certificate holder's ability to satisfy the requirements of Morrow County Zoning Ordinance (MCZO) Section 3.010(k)(3)(i). MCZO Section 3.010(k)(3)(i) requires that the certificate holder sign and record in the deed records for the county a document binding the project owner and the project owner's successors in interest, prohibiting them from pursuing a claim for relief or cause of action alleging injury from farming. In the proposed order, the Department recommends Council impose Condition 6.27 as follows:

Condition 6.27: Prior to construction, the certificate holder shall record in the real property records of Morrow County a Covenant Not to Sue with regard to generally accepted farming practices on adjacent farmland consistent with MCZO 3.010(k)(3)(i).

In comments on the proposed order, the certificate holder notes that Condition 5.10 is included in Attachment A Draft Amended Site Certificate but is not addressed in the proposed order. Condition 5.10 was not addressed in the proposed order; however, Condition 5.10 and 6.27 impose the same requirements for compliance with MCZO Section 3.010(k)(3)(i), and therefore are duplicative. Because Condition 6.27 was described and presented in the proposed order, the Department recommends Council remove Condition 5.10 from the amended site certificate in response to the certificate holder's comments, rely upon Condition 6.27, and consider that the change is not material or substantive.

Comment 13

"Redline Site Certificate, Condition 10.4, Condition 10.11, Condition 10.21 – These conditions as stated in the redline site certificate do not match what is stated in the Wildlife and Habitat Monitoring and Mitigation Plan (WHMMP) regarding the frequency of post-construction monitoring for Carty Solar Farm. PGE recommends revising the redline site certificate to be in line with the WHMMP which requires monitoring during year one, year three and year five after construction of Unit 1 and then continue once every 5 years for the life of the project in years divisible by five; and year one, year three and year five after construction of the Carty Solar Farm, then continue once every 5 years for the life of the project in years divisible by five."

Comment 13 Evaluation

In Attachment 1 Draft Amended Site Certificate, Conditions 10.4, 10.11, and 10.21 present changes that were not described in the proposed order and are inconsistent with the phasing requirements of the

WHMMP. Because these was a drafting error and inconsistency with the WHMMP implementation schedule, based on the certificate holder's comments, the Department recommends Council not amend Condition 10.4, 10.11 and 10.21, as represented in Attachment 1 of the proposed order and consider that these changes are not material or substantive.

Comment 14

"Redline Site Certificate, Condition 10.39 - PGE recommends removal of this condition because it is duplicative of amended Condition 10.28."

Comment 14 Evaluation

In Attachment 1 Draft Amended Site Certificate, Condition 10.28 and 10.39 include duplicative requirements applicable to the Water Pollution Control Facilities permit, as amended through the amendment request currently under review. In comments on the proposed order, the certificate holder requests removal of Condition 10.39. The Department agrees and recommends Council remove the recommended new Condition 10.39, as presented in Attachment 1 Draft Amended Site Certificate, rely upon the recommended amended Condition 10.28 as presented in the proposed order, and consider the changes not to be material or substantive.

Comment 15

"Redline Site Certificate, Condition 15.1 – The dollar amount listed in the redline site certificate does not match the amount listed in the Proposed Order. PGE recommends the Condition be edited to match the Proposed Order language."

Comment 15 Evaluation

In Attachment 1 Draft Amended Site Certificate, Condition 15.1, as recommended be amended, refers to the bond or letter of credit amount for Unit 1, as provided by the certificate holder prior to construction. In comments provided on the proposed order, the certificate holder notes that the amended language included in Attachment 1 is inconsistent with the amended language presented in the proposed order. The Department recommends Council amend Condition 15.1, as described above in response to Comment 6.

Reviewing Agency Comments – Oregon Department of Environmental Quality

On November 14, 2018, the Oregon Department of Environmental Quality (DEQ) provided comments on the proposed order requesting that Conditions 10.33 and 10.34, which apply to facility wastewater and evaporation ponds, not be removed from the site certificate, as they are substantially similar to conditions in the WPCF – a permit governed by the site certificate. The Department recommends Council agree not to delete the conditions, but acknowledge that even if deleted, the certificate holder would be obligated to comply with the conditions in the WPCF (per a separate existing condition).

On December 7, 2018, DEQ clarified that because of the existing condition (Condition 10.28) requiring that the certificate holder comply with the WPCF, that it had no objection to the removal of Conditions 10.33 and 10.34. Therefore, the Department recommends Council maintain the removal of Conditions

10.33 and 10.34 as it allows for more direct tracking of all conditions within the WPCF, directed by Condition 10.28, versus maintaining some but not all WPCF conditions within the site certificate.

Staff Recommendations

The Department recommends Council adopt the proposed order, with modifications outlined in this staff report, as the final order and grant an amended site certificate.

Attachments

Attachment 1: Comments on Proposed Order (Certificate Holder; DEQ)

Attachment 1: Additional Comments on Proposed Order



Portland General Electric Company
121 SW Salmon Street • Portland, Oregon 97204

December 6, 2018
Carty Generating Station

Sarah Esterson
Siting Analyst
Oregon Department of Energy
550 Capitol Street NE
Salem, OR 97301

Subject: Comments on the Proposed Order on the Carty Generating Station Amendment No. 1

Dear Ms. Esterson,

Portland General Electric appreciates the opportunity to provide to the Oregon Department of Energy (the Department) comments on the Proposed Order on the Carty Generating Station Amendment No. 1. PGE has organized our comments on the Proposed Order into two categories, administrative comments and substantive comments. Administrative comments have been provided in a redline word document emailed to the Department (Lenna Cope to Sarah Esterson). Substantive comments are summarized below, and our recommended language is also included in the redline word document:

1. Page 16, line 13 – PGE requests that the phrase ‘up to 3 miles’ be replaced with ‘approximately 3 miles’ to clarify that PGE would be authorized to construct the 34.5 kV transmission line anywhere within the approved corridors as presented on Figure 1 of the site certificate. It would be possible for micro-siting within the approved corridors to result in a transmission line that would be slightly more than 3 miles depending on the number of significant figures used to represent the length.
2. Page 26, line 19 and 20 – The Proposed Order states that the transmission routes and Grassland Switchyard expansion would all be sited on sagehill fine sandy loam soil; however, additional soil types are also included. Figure I-1 shows that, in addition to sagehill fine sandy loam, those components are also sited on touton fine sandy loam, royal silt loam, and dune soils. Recommend deleting statement and just referencing Figure I-1.
3. Page 66, line 17 – PGE recommends deleting the statement “which does not contain water usable for agriculture irrigation”. PGE did not make this statement in our Request for Amendment No. 1.
4. Page 76, line 15 – This section states that the nearest protected area is located approximately 7-miles from the proposed amended site boundary; however, the nearest protected area is actually 2.7-miles from the proposed amended site boundary. PGE recommends deleting the sentence starting on line 14 and suggests including language similar to that used in the evaluation of construction noise on recreational opportunities (page 111, lines 5 through 7).
5. Page 78, line 17 and 18 and Page 121, line 5 and 6 – PGE recommends that the Department add reference to Condition 9.5 which requires PGE to maintain or repair erosion concerns during operation. As currently written, the Proposed Order seems to imply that wastewater from both construction and operation would be managed in accordance with the BMPs described in the NPDES 1200-C permit; however, that permit is only applicable during construction and

immediately following restoration until the permit is terminated. Once the permit is terminated, PGE will manage erosion concerns in accordance with Condition 9.5.

6. Page 83, line 3 and 4 – PGE suggests language to clarify that the Unit 1 decommissioning cost is based on 3rd quarter 2011 dollars and Carty Solar Farm would be based on 3rd quarter 2016 dollars.
7. Page 99, line 13 – PGE requests that language be modified to reflect that maintenance of Category 1 habitat is dependent on the continued presence of Washington ground squirrels which is not under PGE's control.
8. Page 106, line 26 and 27 – PGE suggests language to clarify that Site 35MW19 was originally recorded in the 1970's during surveys for the Carty and Pebble Springs Reservoirs. As currently written, it seems to imply that the site was originally recorded during surveys for the Carty Generating Station which are different than the surveys conducted for Carty Reservoir.
9. Page 107, line 8 and 9 – PGE suggests language to clarify that the concurrence letter issued by the State Historic Preservation Office (SHPO) on June 13, 2016 was not specific to the Carty Solar Farm. The June 13, 2016 concurrence letter (included as Appendix S-1 in RFA No.1) pertained to road work associated with the Boardman Plant. The archaeological investigations conducted to support the Boardman Plant road work studied the entire 35MW19 site (not just the portion adjacent to the planned road work); therefore, PGE included results from the investigation to support removal of Condition 11.1 from the Carty Site Certificate. SHPO provided a concurrence letter that the Carty Solar Farm would have no effect on any significant archaeological objects or sites on December 2, 2016. The Department received copies of both concurrences from SHPO in an email from John Pouley to Sarah Esterson on March 14, 2017.
10. Page 108, Condition 11.6.ii – PGE recommends either reorganizing the sub-bullets or adding an "if, then" statement to clarify that sub-bullet (c) through (f) are only applicable if sub-bullet (b) is triggered.
11. Page 123, Condition 6.5 – PGE recommends that the Condition not be amended. The Condition as originally written requires PGE to design, construct and operate the transmission line in accordance with the requirements of the National Electrical Safety Code, 1997 Edition or its successor document. Since the original Condition includes "or its successor document" it is not necessary to amend the condition to reference to the Code approved on June 3, 2011. In addition, PGE is concerned that specifically requiring compliance with the 2011 Code as a site certificate condition would require a Site Certificate amendment if the Code was updated prior to starting construction of the Carty Solar Farm.
12. Redline Site Certificate, Condition 5.10 – This new condition does not appear to be addressed in the Proposed Order.
13. Redline Site Certificate, Condition 10.4, Condition 10.11, Condition 10.21 – These conditions as stated in the redline site certificate do not match what is stated in the Wildlife and Habitat Monitoring and Mitigation Plan (WHMMP) regarding the frequency of post-construction monitoring for Carty Solar Farm. PGE recommends revising the redline site certificate to be in line with the WHMMP which requires monitoring during year one, year three and year five after construction of Unit 1 and then continue once every 5 years for the life of the project in years divisible by five; and year one, year three and year five after construction of the Carty Solar Farm, then continue once every 5 years for the life of the project in years divisible by five.

14. Redline Site Certificate, Condition 10.39 – PGE recommends removal of this condition because it is a duplicate of amended Condition 10.28.
15. Redline Site Certificate, Condition 15.1 – The dollar amount listed in the redline site certificate does not match the amount listed in the Proposed Order. PGE recommends the Condition be edited to match the Proposed Order language.

If there are any questions regarding PGE's comments please contact me at 503-464-2634.

Sincerely,



Lenna Cope, P.E.
Environmental Engineer
Portland General Electric

**BEFORE THE
ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON**

In the Matter of Request for Amendment 1 of the Carty Generating Station Site Certificate))))	PROPOSED ORDER ON AMENDMENT 1 OF THE SITE CERTIFICATE
--	------------------	---

November 2018

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ATTACHMENTS

- Attachment A: Proposed Amended Site Certificate (red-line)
- Attachment B: Index of Comments Received on Request for Amendment 1
- Attachment C: Responses to Department’s Request for Additional Information
(RFA1 Supplement)
- Attachment D: Draft Amended Wildlife and Habitat Monitoring and Mitigation Plan
- Attachment E: Draft Amended Revegetation and Noxious Weed Control Plan
- Attachment F: Draft Erosion and Sediment Control Plan
- Attachment G: Amendment Rules at OAR 345-027-0050 thru -0070, prior to October 2017

Commented [A1]: Attachment G as attached to the Proposed Order is Titled Attachment 2.

1 **I. INTRODUCTION**

2
3 The Oregon Department of Energy (Department) issues this proposed order in accordance with
4 Oregon Revised Statute (ORS) 469.405 and Oregon Administrative Rule (OAR) 345-027-0070 in
5 effect prior to October 24, 2017 for the request by Portland General Electric Company (PGE or
6 certificate holder) for Amendment 1 of the Carty Generating Station site certificate.¹

7
8 The certificate holder requests approval from the Energy Facility Siting Council (EFSC or Council) to
9 amend the site certificate to authorize the following modifications:

- 10
- 11 • Construction and operation of a 50 megawatt (MW) photovoltaic solar unit;
 - 12 • Construction and operation of a 2.25 to 3-mile 34.5 kilovolt (kV) interconnection
 - 13 transmission line;
 - 14 • Approval for five interconnection transmission line routing options and three
 - 15 interconnection options;
 - 16 • Use of temporary construction laydown and parking areas;
 - 17 • Removal of site certificate references and conditions related to previously approved but
 - 18 not constructed Unit 2 natural gas power plant, Unit 2 associated components, and Unit 2
 - 19 related and supporting facilities;
 - 20 • Amendment of the site boundary to include the perimeter of proposed components and to
 - 21 allow flexibility during final design; and,
 - 22 • Amendment and removal of several site certificate conditions.
- 23

24 Based upon review of this request for amendment (RFA) and the comments and recommendations
25 received by state agencies, local governments, and tribal organizations, the Department
26 recommends Council approve the request and grant an amendment of the Carty Generating
27 Station site certificate subject to the existing recommended new and amended conditions set
28 forth in this proposed order.
29

¹ As further described in Section II.D. *Amendment Review Process*, while the certificate holder submitted revised RFA1 in February 2018, the initial amendment request was first submitted in August 2016. Therefore, the amendment review process is based on the Oregon Administrative Rules in effect at the time the amendment was initially submitted to the Department. References to the procedural rules in this proposed order are those in effect at that time regarding the review process in Division 27. Rules not related to the review process, including Council standards, are those rules in effect at the time Council makes a decision on the RFA.

I.A. Name and Address of Certificate Holder

Portland General Electric Company
121 SW Salmon Street
3WTC-~~BR050403~~
Portland, OR 97204

Individual responsible for submitting this amendment request:

Arya Behbehani
General Manager Environmental & Licensing Services
Portland General Electric Company
121 SW Salmon Street, 3WTC0403
Portland, OR 97204
503-464-8141
Arya.Behbehani@pgn.com

I.B. Description of the Approved Facility

The approved, operating facility includes a 450 MW natural gas fueled combined-cycle electric generating turbine (Unit 1) and its associated components including a heat recovery steam generator, steam turbine generator, natural-gas fueled auxiliary boiler, and cooling tower cell. Related and supporting facilities include the Grassland Switchyard, onsite 500 kV interconnection transmission line (Unit 1 to Grassland Switchyard), interconnecting water pipelines, sewer lines, liquid storage facilities, accessory buildings, utility lines, roads and temporary laydown areas.

The facility shares several components with the existing Boardman Coal Plant, including portable water and sanitary waste infrastructure, and the Carty Reservoir for water withdrawal and water discharge purposes. While these facilities are shared, they are not currently included in the Carty Generating Station site certificate. In the event Boardman Coal Plant ceases operations in the future, PGE would request a site certificate amendment to incorporate the shared facilities into its site certificate as related and supporting facilities.

As described above, the operating facility is a 450 MW energy facility; the site certificate, as issued by Council in July 2012, authorized construction and operation of a 900 MW energy facility including an additional 450 MW natural gas fueled combined cycle electric generating turbine (Unit 2) and its associated components. The facility site certificate also authorized construction and operation of up to 18-miles of a 500 kV transmission line to extend from the Grassland Switchyard to Bonneville Power Authority's (BPA) Slatt Substation, and evaporation ponds. None of these components were constructed; the construction commencement deadline for Unit 2, Unit 2 associated components, evaporation ponds, and 18-mile transmission line expired in July 2017.

1 The certificate holder has not included a request to extend the construction commencement
2 deadline in the amendment request; therefore, the certificate holder no longer maintains the
3 authority to construct and operate Unit 2, Unit 2 associated components, or the previously
4 approved but not constructed related and supporting facilities.

5
6 *Facility Changes Approved through Change Request*

7
8 The certificate holder requested Department review of a backup transmission line constructed
9 outside the site boundary to determine whether a site certificate amendment was required.
10 Following review, on June 14, 2017 the Department determined that a site certificate amendment
11 would not be necessary to accommodate for the constructed 34.5 kV backup transmission line.²
12 This line is, therefore, incorporated into the site certificate through Department's review of the
13 Change Request documentation submitted on April 20, 2017.

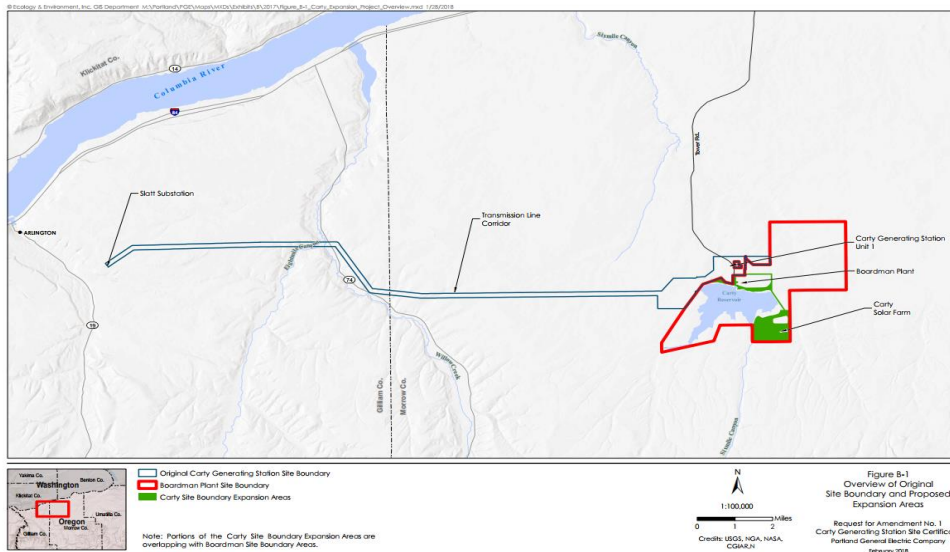
14
15 **I.C. Description of the Approved Facility Location and Site Boundary**

16
17 The approved, operating facility is located in Morrow County, Oregon, southwest of the City of
18 Boardman and adjacent to the Carty Reservoir.

19
20 As presented in Figure 1, *Approved Facility Location*, the approved site boundary (represented in
21 light blue) encompasses 2,400 acres and includes the perimeter of the area of the approved
22 energy facility and its related or supporting facilities, temporary laydown and staging areas, and
23 18-mile transmission line corridor.
24

² The Change Request was previously evaluated and is not evaluated within this Amendment. The Department's analysis included discussion related to PGE's compliance with existing Site Certificate conditions. As noted in its *Written Report for Determination Pursuant to OAR 345-027-0050(5) for Change to Carty Generating Station*, PGE adhered to the ~~NPDES-NPDES~~ Stormwater Discharge General Permit #1200-C requirements, which included erosion control and soil preservation requirements. The Department agreed with PGE in its determination that the transmission line was a "utility necessary for public service," as sanctioned by ORS 215.275, finding that the construction of the service line did not result in a significant adverse impact to land use. The Department noted in its analysis that the service line, as built, did not negatively affect wildlife habitat and PGE's mitigation offsets were sufficient to compensate for any additional mitigation required from the service line. The Department also found that PGE's ability to comply with site certificate conditions was not impaired, and that the existence of the service line did not necessitate any new conditions or alteration of conditions to the site certificate.

Figure 1: Approved Facility Location



I.D. Procedural History

The Council issued its *Final Order on the Application for Site Certificate for the Carty Generating Station (Final Order on ASC)* on June 29, 2012. The site certificate became effective on July 2, 2012.

II. AMENDMENT PROCESS

II.A. Components included in Initial Amendment Request

In its initial amendment request, the certificate holder requested Council approval for the following:

- Increase the area within the site boundary from 2,400 to 2,918 acres
- Extend the construction start deadline for the second 450 MW natural-gas fired combined cycle combustion turbine generator (Unit 2) and its related or supporting facilities by two years
- Increase the nominal capacity of Unit 2 from 450 to 530 MW and total nominal capacity of the facility from 900 to 1,360 MW

- Construct and operate a 330-MW natural gas-fired, simple-cycle combustion turbine generator (Unit 3) and associated plant additions
- Construct and operate a 50-MW photovoltaic solar unit
- Construct and operate proposed related or supporting facilities including a 500 kV substation; interconnecting transmission lines and associated lattice steel structures; and, depending on final design, could include additional water pipelines, utility power lines, control and communication systems, and other support systems
- Amend Water Pollution Control Facilities Permit, as issued by Oregon Department of Environmental Quality but governed by site certificate, to allow disposal of solar panel washwater
- ~~Submit application for a Permit to Use Surface Water~~~~Amend Limited Water Use License~~, as issued by Oregon Department of Water Resources but governed by site certificate, to ~~allow increase place of use change for construction-related water use~~ the amount of water used by Carty Generating Station
- Amendment and removal of several site certificate conditions

As described above, the certificate holder no longer seeks approval of a site certificate amendment for most of these components. The components currently under review are outlined in Section II.B *Components Included in Revised Amendment Request*.

II.B. Components Included in Revised Amendment Request

The certificate holder requests Council approval to amend the site certificate to allow for:

- Construction and operation of a 50 megawatt (MW) photovoltaic solar unit on approximately 315 acres;
- Construction and operation of a 2.25 to 3-mile 34.5 kilovolt (kV) interconnection transmission line;
- Approval for five interconnection transmission line routing options and three interconnection options;
- Use of temporary construction laydown and parking areas;
- Removal of reference to previously approved but not yet constructed Unit 2, Unit 2 associated components, and Unit 2 related and supporting facilities;
- Amendment of the site boundary (from 3,800 to 1,581 acres) to include the perimeter of proposed components and to allow flexibility during final design
- Amend Water Pollution Control Facilities Permit, as issued by Oregon Department of Environmental Quality but governed by site certificate, to allow disposal of solar panel washwater; and,
- Amendment and removal of several site certificate conditions.

The proposed components are described in further detail below.

1
2 *Proposed Solar Unit*
3

4 The proposed 50 MW photovoltaic solar unit would include module arrays; each array would
5 generate approximately 2.0 MW of electricity under standard conditions. Each array would consist
6 of multiple components including solar modules, trackers, racks, posts, cabling, as well as inverter
7 stations. The area under and around each solar module installation would have a gravel or other
8 non-combustible base.
9

10 *Electrical Collection System and 34.5 kV Transmission Line*
11

12 The proposed electrical collection system would be installed underground. Solar modules would
13 be interconnected through "series strings." Such strings would be routed to direct current (DC)
14 combiners at the end of module array rows. The combined DC electricity would then be routed
15 underground to inverter stations, and from the switchgear to the ~~northwest-northeast~~ corner of
16 the property. At this point, conductors would transition from underground to overhead.
17

18 This aboveground transmission line would continue along the east side of the Carty Reservoir to
19 one of the three potential interconnection points; this line would be a 34.5 kV line designed to
20 carry a maximum of 840 amperes at the summer emergency temperature of 212 degrees
21 Fahrenheit. The transmission line would be constructed on buried wood poles with polymer post
22 insulators in a delta (or triangle) configuration, with spacing clearances in accordance with PGE's
23 standard for 115 kV sub-transmission lines.
24

25 *Point of Interconnection Options*
26

27 The certificate holder proposes three potential points of interconnection (POI); the (1) Grassland
28 500 kV Interconnect; (2) Carty Unit 1 Isophase Interconnect; and (3) Boardman Coal Plant
29 Interconnect.
30

- 31 • **Grassland 500 kV Interconnect:** This proposed POI would buildout the existing Grassland
32 Switchyard, including extending the existing fenceline to the perimeter of the 15-acre area.
33 A ring bus position would be added, and a new 500/35 kV 50 mega volt ampere (MVA)
34 transformer would connect to the new bus position. Additional equipment includes but is
35 not limited to: circuit breakers (500 kV and 35 kV), disconnect switches, a voltage
36 transformer, and protective relay panels. PGE proposes Route 1 to connect to the
37 Grassland switchyard, which is contained in the ~~Applicant's-applicant's~~ Figure B-4.
38
- 39 • **Carty Unit 1 Isophase Interconnect:** This proposed POI would modify the existing Unit 1
40 isophase bus duct to allow for a new connection tap. Additional equipment includes but is
41 not limited to: circuit breakers (35 kV), disconnect switches, and protective relay panels.

PGE proposes two routes to connect to the Carty Unit 1; Routes 2a and 2b, which is contained the in the applicant's Figure B-4.

- **Boardman Coal Plant Interconnect:** This proposed POI would consist of adding a new 500 kV substation in a straight bus arrangement. The new substation would be located to the northwest of the existing Boardman Coal Plant. A 500/35 kV 50 MVA transformer would be connected to the new bus. Additional equipment includes but is not limited to: circuit breakers (500 kV and 35 kV), disconnect switches, a voltage transformer, and protective relays. PGE anticipates that the new substation could require an area of approximately 265 by 280 feet. PGE proposes two routes to connect with the Boardman Coal Plant; 3a and 3b, which is contained in the applicant's Figure B-4.

Additional Temporary Construction Yards

Additional temporary construction yards would be located north and south of the existing Grassland Switchyard; north, east and south of the existing Unit 1; and, along the northeast perimeter of the Carty Reservoir as represented in RFA Exhibit B, Figure B-3.

II.C. Recommended Amended Site Certificate and Condition Format

The recommended amended site certificate includes existing and recommended new and amended conditions. Some of the conditions apply to the facility, with proposed changes, some conditions apply only to existing operational facility components, and some conditions apply only to the proposed facility components.

Previously imposed conditions that are not recommended to be amended through new or deleted language would apply to both existing and proposed facility components. Previously imposed conditions that are recommended to be amended, but that include differing requirements for existing operational components and proposed components include a delineation format, where a roman numeral "i" indicates the requirements of the condition apply to operating components, or Unit 1 and its related or supporting facilities; and, roman numeral "ii" indicates that requirements of the amended condition apply to proposed components, or Carty Solar Farm and its related or supporting facilities.

Conditions recommended for removal from the site certificate related specifically to facility components originally approved but no longer authorized within the site certificate due to the expiration of the construction commencement deadline are not presented in this order, for brevity, but are presented in Attachment A (in red-line format) of this order. And conditions recommended for deletion would remain in the site certificate but would be presented in ~~in a~~ strikeout format, and demarcated as "deleted."

1 **II.D. Amendment Review Process**

2
3 The certificate holder submitted Request for Amendment 1 (RFA1) in August of 2016. On
4 September 22, 2016, the certificate holder formally requested a temporary suspension of
5 processing the amendment request. The certificate holder requested, on December 14, 2016, that
6 the Department re-initiate review of the amendment request, as submitted in August 2016. On
7 December 22, 2016, the Department posted the RFA to its project website and sent notice of the
8 RFA to all persons on the Council's mailing list, to the special list established for the facility, and to
9 an updated list of property owners supplied by the certificate holder. The public notice clarified
10 that any comments previously submitted during the September 2016 comment period need not
11 be re-submitted. The Department notified the certificate holder that the anticipated issuance date
12 of the proposed order would be no later than June 20, 2017.
13

14 On May 12, 2017, the certificate holder again requested that the Department suspend its review
15 of the amendment request. On October 27, 2017, the certificate holder notified the Department
16 of its intent to modify the amendment request by removing all previously proposed components,
17 except for those associated with the Carty Solar Farm. Previously proposed components included a
18 request to extend the construction commencement and completion deadlines for Unit 2 and its
19 supporting facilities, and the 18 mile 500 kV transmission line; Unit 2 upgrade; and, 330 MW
20 natural gas-fired simple cycle combustion turbine generator (Unit 3) and its associated facilities.
21

22 The certificate holder submitted revised RFA1 in February of 2018. Because the original
23 amendment request was submitted in August 2016, the amendment review process is based on
24 OAR 345, Division 27 in effect at the time that the amendment was initially submitted to the
25 Department. For reference, a copy of the applicable OAR Chapter 345 Division 27 rules is provided
26 in Attachment G of this order. All other applicable rules, such as Council standards, are those rules
27 in effect at the time the Council decides on the merits of the RFA.
28

29 **Reviewing Agency Comments on Revised Request for Amendment 1**

30
31 As presented in Attachment B of the proposed order, the Department received comments from
32 the following reviewing agencies and SAGs:
33

- 34 • Confederated Tribes of the Umatilla Indian Reservation (CTUIR)
- 35 • Morrow County Board of Commissioners (Special Advisory Group)
- 36 • Oregon Department of Environmental Quality (DEQ)
- 37 • Oregon Department of Fish and Wildlife (ODFW)
- 38 • Oregon Department of Land Conservation and Development (DLCD)
- 39 • Oregon Department of State Lands (DSL)
- 40 • Oregon Water Resources Department
- 41

1 Issues raised by reviewing agencies regarding compliance with an applicable Council standard are
2 addressed in Section III.A, *Applicable Division 27 Rule Requirements* of this proposed order.

3
4 *Public Comments on Revised Request for Amendment 1*

5
6 As presented in Attachment B of the proposed order, the Department received 5 public comments
7 during the comment period for the revised amendment request.³ Public comments received on
8 the revised amendment request, which raise issues of compliance with an applicable EFSC
9 standard, are addressed in Section III.B, *Evaluation of Council Standards* of the proposed order.

10
11 **II.E. Council Review Process**

12
13 On March 5, 2018, the Department sent notice of the amendment request to all persons on the
14 Council's general mailing list, to the special list established for the facility, to an updated list of
15 property owners supplied by the certificate holder, and to a list of reviewing agencies as defined in
16 OAR 345-001-0010(52). The notice included a request for public comments and established a
17 comment deadline of April 6, 2018. In addition to issuing the notice, the Department posted the
18 public notice and RFA1 materials on the agency website.

19
20 The Department also sent electronic copies of RFA1 to a distribution list, which included reviewing
21 agencies, with a memorandum requesting agency comments by April 6, 2018. Public and
22 reviewing agency comments received on RFA1 are described below, and in Section III. *Review of*
23 *Requested Amendment* under the applicable standards.

24
25 The Department requested additional information on April 6, 2018 and received a response from
26 the certificate holder on September 24, 2018 (see Attachment C). On November 9, 2018, the
27 Department issued the proposed order and a notice of both a comment period and opportunity to
28 request a contested case proceeding on the proposed order. The notice was distributed to all
29 persons on the Council's general mailing list, to the special mailing list established for the facility,
30 to an updated list of property owners as verified by the Department, and to a list of reviewing
31 agencies as defined in OAR 345-001-0010(52).

32

³ The Department received over 6,700 public comments on the initial RFA, which as described above included a
proposed 330 MW natural gas-fired simple cycle combustion turbine generator, upgrade of Unit 2, and a construction
deadline extension request for Unit 2 and its supporting facilities. The majority of these comments raised concerns
related to Unit 2 and Unit 3, the natural-gas fired components no longer included in the amendment request.
Comments related to components no longer proposed in the amendment request are not addressed further in this
order; comments related to the proposed Carty Solar Farm and its supporting facilities are addressed in Section III.
Review of Requested Amendment of this order.

1 **II.F. Applicable Division 27 Rule Requirements**

2
3 Under ORS 469.405, “a site certificate may be amended with the approval of the Energy Facility
4 Siting Council.” The Council has adopted rules for determining when a site certificate amendment
5 is necessary (OAR 345-027-0050 and -0070).
6

7 Pursuant to OAR 345-027-0011, the procedural requirements imposed under OAR 345-027-0050
8 through -0100, as of October 24, 2017, do not apply to requests for amendment received prior to
9 October 24, 2017, including this amendment request, which, as noted, was first received in 2016.
10

11 **III. REVIEW OF REQUESTED AMENDMENT**

12
13 Under ORS 469.310, the Council is charged with ensuring that the “siting, construction and
14 operation of energy facilities shall be accomplished in a manner consistent with protection of the
15 public health and safety.” ORS 469.401(2) further provides that the Council must include in the
16 amended site certificate “conditions for the protection of the public health and safety, for the time
17 for completion of construction, and to ensure compliance with the standards, statutes and rules
18 described in ORS 469.501 and ORS 469.503.”⁴ The Council implements this statutory framework by
19 adopting findings of fact, conclusions of law, and conditions of approval concerning the ability of
20 the certificate holder to maintain compliance with the Council’s Standards for Siting Facilities at
21 OAR 345, Divisions 22, 24, 26, and 27.

22 **III.A. General Standard of Review: OAR 345-022-0000**

23
24 *(1) To issue a site certificate for a proposed facility or to amend a site certificate, the*
25 *Council shall determine that the preponderance of evidence on the record supports the*
26 *following conclusions:*
27

28 *(a) The facility complies with the requirements of the Oregon Energy Facility Siting*
29 *statutes, ORS 469.300 to ORS 469.570 and 469.590 to 469.619, and the standards*
30 *adopted by the Council pursuant to ORS 469.501 or the overall public benefits of the*
31 *facility outweigh the damage to the resources protected by the standards the facility*
32 *does not meet as described in section (2);*
33

34 *(b) Except as provided in OAR 345-022-0030 for land use compliance and except for*
35 *those statutes and rules for which the decision on compliance has been delegated by*
36 *the federal government to a state agency other than the Council, the facility complies*
37 *with all other Oregon statutes and administrative rules identified in the project order, as*
38 *amended, as applicable to the issuance of a site certificate for the proposed facility. If*

⁴ ORS 469.401(2).

1 the Council finds that applicable Oregon statutes and rules, other than those involving
2 federally delegated programs, would impose conflicting requirements, the Council shall
3 resolve the conflict consistent with the public interest. In resolving the conflict, the
4 Council cannot waive any applicable state statute.

5 ***5

6 (4) In making determinations regarding compliance with statutes, rules and ordinances
7 normally administered by other agencies or compliance with requirements of the Council
8 statutes if other agencies have special expertise, the Department of Energy shall consult
9 with such other agencies during the notice of intent, site certificate application, and site
10 certificate amendment processes. Nothing in these rules is intended to interfere with the
11 state's implementation of programs delegated to it by the federal government.

12 13 **Findings of Fact**

14
15 OAR 345-022-0000 provides the Council's General Standard of Review and requires the Council to
16 make findings, on the record, based on the preponderance of evidence standard. These findings
17 must support the conclusion that the facility, with proposed changes, complies with the
18 requirements of Council statutes, the siting standards adopted by the Council, and all other
19 Oregon Statutes and administrative rules identified in the project order and as applicable to the
20 issuance of an amended site certificate for proposed facility modifications.

21
22 As discussed in Section II.B., *Amendment Review Process* the Department consulted with other
23 agencies during the site certificate amendment process to seek aid in the evaluation of the
24 proposal against the relevant statutes, rules, and ordinances administered by these agencies.
25 Additionally, the Department relied upon reviewing agencies' special expertise in evaluating the
26 facility's compliance with the requirements of the Council's standards. The Department
27 recommends Council finds that the existing, recommended new and amended site certificate
28 conditions would ensure that the facility, with proposed changes, would maintain compliance with
29 all applicable statutes, administrative rules, and ordinances under Council jurisdiction.

30
31
32
33

5 OAR 345-022-0000(2) and (3) apply to amendment requests where a certificate holder has shown that the amended facility cannot meet Council standards or has shown that there is no reasonable way to meet the Council standards through mitigation or avoidance of the damage to protected resources; and, for those instances, establish criteria for the Council to evaluate in making a balancing determination. The certificate holder does not assert that the amended facility cannot meet an applicable Council standard. Therefore, OAR 345-022-0000(2) and (3) do not apply to this review.

1 *Certificate Expiration [OAR 345-027-0013]*

2
3 A site certificate, or amended site certificate, becomes effective upon execution by the Council
4 Chair and the certificate holder. A site certificate, or amended site certificate, expires if
5 construction has not commenced on or before the construction commencement deadline, as
6 established in the site certificate and statutorily required under ORS 469.401(2).
7

8 The Council's imposition of construction deadlines in the amended site certificate should reflect a
9 balance between the Council's concern regarding potential circumstantial changes (regulatory and
10 environmental) and the individual circumstances of the amendment request. In addition, the
11 Department acknowledges that there are a number of unforeseen factors that can delay a
12 certificate holder's commencement of construction and completion, including but not limited to
13 financial, economic, or technological changes. The Department also notes that while each
14 amendment request is evaluated on its own facts, historic Council decisions on construction and
15 commencement deadlines were reviewed to inform this analysis. In most instances of decisions on
16 ASCs, Council has required construction commencement and completion of wind and solar energy
17 facilities within three and six years, respectively, after the effective date of the site certificate and
18 in some instances the completion deadline is established based on date of construction
19 commencement and not effective date of site certificate.
20

21 In RFA Exhibit B, the certificate holder requests up to three years to commence construction and
22 up to two years, upon construction commencement, to complete construction. The certificate
23 holder explains that based upon an anticipated nine month construction duration, the requested
24 completion deadline would allow flexibility in the event of construction or weather delays. The
25 Department recommends Council grant the commencement deadline, as requested, because it
26 would provide sufficient time for satisfying pre-construction condition requirements established in
27 the amended site certificate, allow sufficient time to obtain required permits not governed by the
28 site certificate, and would be consistent with past Council requirements.⁶ The Department,
29 however, recommends Council grant a construction completion deadline based upon three years
30 following the date of construction commencement, providing one additional year beyond the
31 timeframe requested. This timeframe would be consistent with historic Council decisions and
32 represents a reasonable timeframe where minimal changes on the ground would be expected.
33

⁶ CGSAMD1. RFA1 Exhibit E. 2018-02-20. RFA Exhibit E identifies that federal approval from Federal Aviation Administration (7460-1; 7460-2) and Federal Communications Commission (Coordination License) would be required; and, a federally delegated permit (National Pollutant Discharge Elimination System Stormwater Permit) from the Oregon Department of Environmental Quality (DEQ) would be required.

Accordingly, and in compliance with OAR 345-025-0006(4), the Department recommends Council adopt the following conditions or condition amendments:⁷

Condition 4.1, as amended: The certificate holder shall:

- i. Begin construction of the facility Unit 1 within three years after the effective date of the site certificate. Under OAR 345-015-0085(9), a site certificate is effective upon execution by the Council Chair and the applicant. The Council may grant an extension of the deadline to begin construction in accordance with OAR 345-027-0030 or any successor rule in effect at the time the request for extension is submitted.
[Mandatory Condition OAR 345-027-0020(4); Final Order III.D.3]
- ii. Begin construction of the Carty Solar Farm within three years after the effective date of the amended site certificate [SPECIFIC DATE TO BE INCLUDED IN FINAL ORDER AND SITE CERTIFICATE]. The certificate holder shall notify the Department when construction of the Carty Solar Farm commences. Under OAR 345-015-0085(8), the site certificate is effective upon execution by the Council Chair and the certificate holder.
[AMD1]

Condition 4.2, as amended: The certificate holder must:

- i. Complete construction of Block 1 of the facility Unit 1 within three years of beginning construction of Block 1 Unit 1. Construction is complete when: 1) the facility Unit 1 is substantially complete as defined by the certificate holder's construction contract documents; 2) acceptance testing has been satisfactorily completed; and 3) the energy facility is ready to begin continuous operation consistent with the site certificate. The certificate holder shall promptly notify the Department of the date of completion of construction of Block Unit 1. The Council may grant an extension of the deadline for completing construction in accordance with OAR 345-027-0030 or any successor rule in effect at the time the request for extension is submitted.
[Final Order III.D.4] [Mandatory Condition OAR 345-027-0020(4)]
- ii. Complete construction of the Carty Solar Farm within six years of the effective date of the amended site certificate [SPECIFIC DATE TO BE INCLUDED IN FINAL ORDER AND SITE CERTIFICATE]. The certificate holder shall promptly notify the Department of the date of completion of construction of the Carty Solar Farm.
[AMD1]

⁷ The Department recommends removal of Condition 4.3 because it is specific to Unit 2, which the certificate holder no longer maintains authority to construct or operate. Removal of Condition 4.3 results in renumbering, as presented in Attachment A (Draft Amended Site Certificate).

1 *Mandatory and Site-Specific Conditions in Site Certificates [OAR 345-025-0006 and OAR 345-025-*
2 *0010]*

3
4 OAR 345-025-0006 lists certain mandatory conditions that the Council must adopt in every site
5 certificate. The Council's October 2017 rule changes moved the mandatory conditions from
6 Division 27 to Division 25. As such, the Department recommends Council administratively amend
7 the rule citations included in the previously imposed mandatory and site-specific conditions, as
8 presented in Attachment A of this order.

9
10 Additionally, the Department recommends the Council adopt the following site specific condition,
11 pursuant to OAR 345-025-0010(5), applicable to transmission lines:

12
13 Condition 6.26: The certificate holder is authorized to construct ~~up to~~ approximately 3
14 miles of a 34.5 kV transmission line anywhere within the approved corridors, subject to the
15 conditions of the site certificate. The approved corridors ~~is~~ are 160-feet in width and
16 extend between 2.25 and 3 miles of three routes as described in RFA1 Exhibit B and as
17 presented on Figure 1 of the site certificate.
18 [Site Specific Condition OAR 345-025-0010(5)] [AMD1]

Commented [A2]: This condition does not appear to have been added to the redline site certificate. There is a new Condition 6.26 but it relates to the Traffic Impact Study and Traffic Management Plan.

19
20 *Construction and Operation Rules for Facilities [OAR Chapter 345, Division 26]*

21
22 The Council has also adopted rules at OAR Chapter 345, Division 26 to ensure that construction,
23 operation, and retirement of facilities are accomplished in a manner consistent with the
24 protection of the public health, safety, and welfare and protection of the environment. These rules
25 include requirements for compliance plans, inspections, reporting and notification of incidents.
26 The certificate holder must construct the facility substantially as described in the site certificate
27 and the certificate holder must construct, operate, and retire the facility, with proposed changes,
28 in accordance with all applicable rules adopted by the Council in OAR Chapter 345, Division 26.⁸

29
30 **Conclusions of Law**

31
32 Based on the foregoing findings of fact and conclusions of law, and subject to compliance with the
33 amended mandatory and site-specific conditions, the Department recommends the Council find
34 that the facility, with proposed changes, would satisfy the requirements of OAR 345-022-0000.
35
36

⁸ Applicable rule requirements established in OAR Chapter 345, Division 26 include OAR 345-026-0048, OAR 345-026-0080, OAR 345-026-0105, and OAR 345-026-0170.

1 **III.B. Organizational Expertise: OAR 345-022-0010**

2
3 *(1) To issue a site certificate, the Council must find that the applicant has the organizational*
4 *expertise to construct, operate and retire the proposed facility in compliance with Council*
5 *standards and conditions of the site certificate. To conclude that the applicant has this*
6 *expertise, the Council must find that the applicant has demonstrated the ability to design,*
7 *construct and operate the proposed facility in compliance with site certificate conditions*
8 *and in a manner that protects public health and safety and has demonstrated the ability to*
9 *restore the site to a useful, non-hazardous condition. The Council may consider the*
10 *applicant's experience, the applicant's access to technical expertise and the applicant's past*
11 *performance in constructing, operating and retiring other facilities, including, but not*
12 *limited to, the number and severity of regulatory citations issued to the applicant.*
13

14 *(2) The Council may base its findings under section (1) on a rebuttable presumption that an*
15 *applicant has organizational, managerial and technical expertise, if the applicant has an*
16 *ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the*
17 *facility according to that program.*
18

19 *(3) If the applicant does not itself obtain a state or local government permit or approval for*
20 *which the Council would ordinarily determine compliance but instead relies on a permit or*
21 *approval issued to a third party, the Council, to issue a site certificate, must find that the*
22 *third party has, or has a reasonable likelihood of obtaining, the necessary permit or*
23 *approval, and that the applicant has, or has a reasonable likelihood of entering into, a*
24 *contractual or other arrangement with the third party for access to the resource or service*
25 *secured by that permit or approval.*
26

27 *(4) If the applicant relies on a permit or approval issued to a third party and the third party*
28 *does not have the necessary permit or approval at the time the Council issues the site*
29 *certificate, the Council may issue the site certificate subject to the condition that the*
30 *certificate holder shall not commence construction or operation as appropriate until the*
31 *third party has obtained the necessary permit or approval and the applicant has a contract*
32 *or other arrangement for access to the resource or service secured by that permit or*
33 *approval.*
34
35
36
37
38
39

1 **Findings of Fact**

2 Subsections (1) and (2) of the Council's Organizational Expertise standard require that the
3 certificate holder demonstrate its ability to design, construct and operate the facility, with
4 proposed changes, in compliance with Council standards and all site certificate conditions, and in a
5 manner that protects public health and safety, as well as its ability to restore the site to a useful,
6 non-hazardous condition. The Council may consider the certificate holder's experience and past
7 performance in constructing, operating and retiring other facilities in determining compliance with
8 the Council's Organizational Expertise standard. Subsections (3) and (4) address third party
9 permits.

10
11 *Compliance with Council Standards and Site Certificate Conditions*

12
13 The Council may consider a certificate holder's past performance, including but not limited to the
14 quantity or severity of any regulatory citations in the construction or operation a facility, type of
15 equipment, or process similar to the facility, in evaluating whether a proposed change may impact
16 the certificate holder's ability to design, construct and operate a facility in compliance with Council
17 standards and site certificate conditions.⁹ To evaluate whether construction and operation of the
18 proposed Carty Solar Farm and its supporting facilities would impact the certificate holder's ability
19 to comply with Council standards and site certificate conditions, the Department evaluates the
20 certificate holder's relevant experience constructing and operating solar facilities and whether any
21 regulatory citations have been received for its facilities.

22
23 PGE has demonstrated, through construction of previous energy facilities, that it is capable of
24 designing and constructing a solar facility that complies with EFSC site certificate conditions and
25 has previously demonstrated an ability to restore a facility to a useful, non-hazardous condition.
26 Portland General Electric Company is a vertically integrated utility, which has operated for 129
27 years and serves 863,000 customers in 51 cities. PGE currently operates six natural gas facilities,
28 one coal facility, seven hydro-electric facilities, two wind facilities, and five solar facilities. The
29 nameplate capacity of its combined solar facilities is approximately 9 MW and these facilities are
30 composed of both crystalline and thin film technologies.¹⁰

31
32 In RFA Exhibit D, the certificate holder lists violations and citations for various PGE facilities that
33 have occurred between 2010 through 2015 and were related to water pollution and air
34 contaminants. None of the listed violations or citations were issued by the Council or issued to the
35 Carty Generating Station. PGE indicated that all citations and violations had been corrected. PGE
36 described that most of the citations or violations were identified by the facility, and were
37 immediately resolved. For these reasons, the Department considers PGE's ability to identify and

⁹ OAR 345-021-0010(1)(d)(D)

¹⁰ CGSRFA1 Exhibit W, p. D-4 (2/20/2018).

respond to compliance issues to be representative of their reasonable ability to construct and operate the proposed Carty Solar Farm in compliance with existing and recommended new or amended site certificate conditions.

Ability to Restore the Site to a Useful, Non-Hazardous Condition

The certificate holder's ability to restore the facility site to a useful, non-hazardous condition is evaluated in Section III.G, *Retirement and Financial Assurance* of this order, in which the Department recommends that Council find that the certificate holder would continue to be able to comply with the Retirement and Financial Assurance standard. In addition, the certificate holder's ability to construct and operate the proposed Carty Solar Farm in a manner that protects public health and safety is addressed in Section III.C., *Structural Standard*; Section III.M, *Public Services*; and Section III.P.1, *Siting Standards for Transmission Lines*, of this order.

ISO 900 or ISO 14000 Certified Program

OAR 345-022-0010(2) is not applicable because the certificate holder has not proposed to design, construct or operate the facility, with proposed changes, according to an ISO 9000 or ISO 14000 certified program.

Third-Party Permits

OAR 345-022-0010(3) addresses the requirements for potential third party permits, and for third party permits Council would ordinarily determine compliance, Council must find that the certificate holder has a reasonable likelihood of entering into a contract or other agreement with the third-party for access to the resource secured by that permit, and that the third party has a reasonable likelihood of obtaining the necessary permit.

In the amendment request, the certificate holder describes that water needed during construction of the proposed Carty Solar Farm and its supporting facilities would be obtained from Carty Reservoir, of which PGE maintains a water right, through a third-party limited water use license from Oregon Department of Water Quality, a permit for which the Council would ordinarily determine compliance. Because the certificate holder has not selected its third-party contractor, the necessary permit or approval has not yet been obtained. Therefore, the Department recommends Council adopt the following condition, which prohibits the certificate holder from commencing construction until the third party permit is issued:

Recommended Condition 2.14: Prior to construction of the Carty Solar Farm, the certificate holder must:

- a. Provide evidence to the Department that a limited water use license from Oregon Department of Water Quality has been obtained by its third-party contractor.

Commented [A3]: Edit not reflected in the redline site certificate.

- 1 b. Provide to the Department in semi-annual reports pursuant to OAR 345-026-0080,
2 documentation of the record of all water use, as required by the third-party's limited
3 water license, demonstrating that the allowable total and per minute water use (total
4 gallons and gallons per minute) have not been exceeded.
5 [Final Order on AMD1]
6

7 **Conclusions of Law**
8

9 Based on the evidence presented in the RFA, the Department recommends the Council find that
10 with existing and recommended new site certificate conditions, the certificate holder has the
11 ability to design, construct, and operate the facility, with proposed changes, in compliance with all
12 Council standards and conditions, as required by the Organizational Expertise standard.

13 **III.C. Structural Standard: OAR 345-022-0020**
14

15 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the*
16 *Council must find that:*
17

18 *(a) The applicant, through appropriate site-specific study, has adequately characterized*
19 *the site as to the Maximum Considered Earthquake Ground Motion as shown for the*
20 *site in the 2009 International Building Code and maximum probable ground motion,*
21 *taking into account ground failure and amplification for the site specific soil profile*
22 *under the maximum credible and maximum probable seismic events; and*
23

24 *(b) The applicant can design, engineer, and construct the facility to avoid dangers to*
25 *human safety presented by seismic hazards affecting the site that are expected to result*
26 *from maximum probable ground motion events. As used in this rule "seismic hazard"*
27 *includes ground shaking, ground failure, landslide, liquefaction, lateral spreading,*
28 *tsunami inundation, fault displacement, and subsidence;*
29

30 *(c) The applicant, through appropriate site-specific study, has adequately characterized*
31 *the potential geological and soils hazards of the site and its vicinity that could, in the*
32 *absence of a seismic event, adversely affect, or be aggravated by, the construction and*
33 *operation of the proposed facility; and*
34

35 *(d) The applicant can design, engineer and construct the facility to avoid dangers to*
36 *human safety presented by the hazards identified in subsection (c).*
37

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

1
2 (3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-
3 0310 without making findings described in section (1). However, the Council may apply the
4 requirements of section (1) to impose conditions on a site certificate issued for such a
5 facility.
6

7 **Findings of Fact**
8

9 As provided in section (1) above, the Structural Standard generally requires the Council to evaluate
10 whether the applicant (certificate holder) has adequately characterized the potential seismic,
11 geological and soil hazards of the site, and whether the applicant (certificate holder) can design,
12 engineer and construct the facility to avoid dangers to human safety and the environment from
13 these hazards.¹¹ Pursuant to OAR 345-022-0020(2), the Council may issue a site certificate for a
14 wind energy facility without making findings regarding compliance with the Structural Standard;
15 however, the Council may apply the requirements of the standard to impose site certificate
16 conditions.
17

18 The analysis area for the Structural Standard is the area within the site boundary.
19

20 The certificate holder's geotechnical consultant, Cornforth Consultants, Inc., of Portland, Oregon
21 prepared a geotechnical/geologic investigations report for this amendment request. The report,
22 dated May 27, 2016, meets the general guidelines in DOGAMI Open File Report 00-04 and the
23 Oregon State Board of Geologist Examiners' Guidelines for Preparing Engineering Geologic Reports
24 (Second Edition, May 30, 2014).
25

26 The certificate holder completed consultation with the Oregon Department of Geology and
27 Mineral Industries (DOGAMI) across several communication exchanges. The certificate holder
28 conducted a telephone conference with DOGAMI on March 28, ~~2018~~ 2016 in which information
29 was provided related to the PGE's intent to prepare a Site Certificate Amendment Request for the
30 Carty Solar Farm. The telephone conversation occurred between Mr. Bill Burns of DOGAMI and
31 Mr. Darren Beckstrand, Senior Associate Geologist with Cornforth Consultants, Inc. Mr. Beckstrand
32 informed Mr. Burns during the conversation of Cornforth's intent to complete preliminary site
33 investigations consisting of a geologic site reconnaissance (completed March 30, 2016), drilling of
34 preliminary site exploratory borings (completed March 29 through 31, 2016), field electrical
35 resistivity testing (completed April 8, 2016) and laboratory testing (completed in April 2016).
36 Subsequent email communications (Beckstrand/Burns) confirmed this consultation with DOGAMI
37 and highlighted several suggestions by DOGAMI for Cornforth to consider during the site

¹¹ OAR 345-022-0020(3) does not apply to this facility because the facility, with proposed changes, is a not a special
criteria facility under OAR 345-015-0310.

1 evaluations. In his email response, Mr. Burns pointed-out that the latest version of the OAR 345-
2 021-0010 regulations at the time did not reference the latest building codes/guidelines. At the
3 time, he suggested that any analyses that refers to or relies on the International Building Code
4 (IBC) or the Oregon Structural Specialty Code (OSSC) consider both the codes/guidelines referred
5 to in the current OAR regulations (outdated code references, 2009 IBC and 2010 OSSC) and also
6 the updated codes (IBC 2015 and OSSC 2014). Mr. Beckstrand confirmed that these updated codes
7 would be considered, although potentially not included, in the assessments.

8
9 Preliminary geologic and geotechnical site investigations were completed at the proposed Carty
10 Solar Farm site during the period of March 29 through April 8, 2016. The preliminary site work
11 included a geologic reconnaissance of the area, drilling of four exploratory borings to depths of 50
12 feet below the existing ground surface, and field electrical resistivity measurements (one location)
13 to evaluate on-site soil conductivity. The certificate holder describes that additional site
14 investigations will be performed along the final route selected for the proposed 34.5 kV
15 interconnection transmission line.

16
17 *Potential Seismic, Geological and Soil Hazards*

18
19 OAR 345-022-0020(1)(a) requires the certificate holder to adequately characterize the seismic
20 hazard risk of the site. The potential seismic hazards in the vicinity of the facility site result from
21 two principal types of earthquake sources: Cascadia Subduction Zone (CSZ) interface and local
22 crustal faults.

23
24 The proposed Carty Solar Farm and its supporting facilities should be designed for the maximum
25 considered earthquake (MCE), according to the 2015 IBC. The MCE has a 2-percent probability of
26 exceedance in 50 years (or an approximately 2,475-year return period) and would have a peak
27 ground acceleration (PGA) of 0.24g at the bedrock surface in the analysis area, based on a random
28 crustal event. The peak acceleration estimated for the CSZ interface event was calculated using
29 the averaged, mean plus one standard deviation ground motions from Addo, et al (2012), Atkinson
30 and Boore (2003), Atkinson and Macias (2009), and Zhao, et al. (2006) attenuation relationships.

31
32 Based on the preliminary geotechnical studies, the certificate holder asserts that there are no
33 significant seismic hazards expected at the site. Due to the gently sloping topography of the site,
34 the likelihood of seismically-induced landsliding is low. Additionally, the site is not located near a
35 body of water large enough to develop a significant tsunami wave. Therefore, the risk of tsunami
36 inundation at the site is extremely low to non-existent. Earthquake induced waves (seiche) from
37 the impoundment reservoir are not expected to exceed the height of the embankments or to
38 travel very far landward of the shorelines. There are no mapped active crustal faults located within
39 6 miles of the site and therefore the certificate holder asserts that the risk of fault rupture is low.
40
41

1
2 *Seismic Disaster Resilience*
3

4 The proposed solar facility is located over 200 miles from the CSZ and is in the light damage zone
5 as defined in the Oregon Resiliency Plan (2013), making it inherently resilient to region-wide
6 seismic disaster. The certificate holder describes that local seismic resiliency would be provided by
7 adhering to current seismic building codes, which incorporate the latest, widely-accepted
8 earthquake data and science.
9

10 Ground shaking hazards would be addressed by the use of seismic ground response spectra in the
11 design, in general accordance with applicable International Building Code and Oregon Structural
12 Specialty Code requirements to design project structural support elements to avoid failure of the
13 panel support systems. The structural engineer would design the facilities to resist lateral base
14 shear based on the spectral values and the seismic design category of the structure. If the spectral
15 values are significantly lower than the OSSC values, the code values would be utilized. Seismic
16 activity monitoring would be accomplished by monitoring public seismic data when needed, such
17 as that provided by the United States Geologic Survey or the Pacific Northwest Seismic Network.
18 The certificate holder indicates that on-site seismic monitoring is not warranted.
19

20 In addition, in the unlikely event of a failure of a solar panel support system (i.e. the racking
21 support system for the solar panels), the risk that would pose to human safety is considered to be
22 low. This is considered low since the presence of operational staff being beneath failing racks that
23 had been designed to seismic codes during a significant seismic event is considered to be remote.
24 Based on the preliminary geotechnical investigations, the proposed Carty Solar Farm site does not
25 appear to possess any significant, non-seismic geologic hazards. As discussed in the preliminary
26 geotechnical/geological report (RFA1 Exhibit H Appendix H-1), there is an upper, surficial layer of
27 dry silt/fine sand that may present minor geotechnical concerns relating to wind erosion or soil-
28 structure collapse; however, it is anticipated that these concerns could be mitigated during the
29 final design and construction phases of the proposed Carty Solar Farm.
30

31 The risk of landslide occurrences at the site is very low due to: i) gently sloping or flat topography
32 all across the site; ii) relatively strong soils at depth; and iii) apparent low groundwater levels. In
33 addition, the risk of flood damage is low due to the flat terrain and lack of upslope drainage areas
34 that could direct water into the project site. The certificate holder found no indications following
35 the geologic reconnaissance of any significant surficial flood drainage ways or flood-eroded
36 ravines.
37

38 The two key geotechnical and geologic issues for the proposed Carty Solar Farm appear to be the
39 potential for erosion of loose surficial soils, and a low potential for collapse of the relatively loose,
40 near-surface wind-blown soils. Council previously imposed Condition 5.4 requiring that the
41 certificate holder complete a pre-construction site-specific geotechnical investigation to further

1 assess, and ensure avoidance of, potential seismic, geologic, and soil hazards of the proposed
2 Carty Solar Farm site at the time when final location of facility components is understood. The
3 Department recommends Council amend Condition 5.4 requiring that the pre-construction site-
4 specific geotechnical investigation completed for the proposed Carty Solar Farm be based upon a
5 protocol reviewed and approved by the Department in consultation with DOGAMI, and include
6 geotechnical work as proposed by the certificate holder.

7
8 **Condition 5.4, as amended:** Before beginning construction, the certificate holder must:

- 9 i. Complete an investigation...
10 [Final Order IV.C.2.1]
11 ii. Complete an investigation of subsurface soil and geologic conditions, based upon a
12 protocol reviewed and approved by the Department in consultation with DOGAMI, to
13 identify geological or geotechnical hazards ~~per Condition 5.4.a~~ and obtain Department
14 approval of the investigation report per Condition 5.4.i.b.
15 a. The investigation must include at least the following activities:
16 1. Drilling of additional borings at scattered locations across the Carty Solar Farm
17 and associated transmission lines and access roads, up to a depth of 50 feet.
18 [AMD1]

Commented [A4]: Make corresponding changes to the redline site certificate.

19
20 *Integration of Disaster Resilience Design*

21
22 The proposed Carty Solar Farm would be founded upon strong soils and would have
23 comprehensive engineering design efforts to ensure renewed operation as soon as practicable
24 after a major disaster. The location of the proposed Carty Solar Farm in the Eastern Cascadia
25 Scenario Impact Zone anticipates light damage from a CSZ earthquake (Oregon Resilience Plan,
26 2013), improving the electricity grid's ability to recover from a regional disaster originating to the
27 west. Solar facilities are inherently resilient to disasters due to less complex generation systems
28 and fewer moving parts or ignition sources that could be damaged during shaking.

29
30 Following significant, regional storms that may impact other regional facilities, solar and other
31 facilities outside the high-rainfall areas of the Pacific Northwest improves extreme-storm
32 resilience.

33
34 The certificate holder identified potential climate change impacts within the region as ~~potential~~
35 including (Dalton et al, 2017):

- 36
37
 - More common extreme heat events
 - Small increases in drought frequency
 - Longer fire seasons
 - More common storm events
 - Altered precipitation patterns influencing rangeland vegetation38
39
40
41

1 • Shifting streamflow seasonality

2 Potential climate change impacts would either not affect the solar facilities (i.e. more heat, more
3 drought) or are mitigated through site development, such as wildfire potential being reduced by
4 site vegetation control. Local vegetation changes could increase eolian (wind-driven) sand
5 transport, though site maintenance would control for this. Other factors, such as shifting
6 streamflow seasonality, forest transformation and disturbance, and challenges to fish would not
7 apply to the proposed Carty Solar Farm due to the surrounding grasslands and absence of streams
8 traversing the site. Site drainage from strong storms would be controlled by site grading and
9 surface water control systems engineering using site-specific hydraulic analyses.

10
11 Future climate conditions that impact the region are not expected to negatively affect the
12 proposed Carty Solar Farm.

13
14 Based upon the evidence provided, and subject to compliance with the conditions referenced
15 above, the Department recommends Council find that the certificate holder has adequately
16 characterized the potential geologic and soil hazards of the proposed Carty Solar Farm site and its
17 vicinity that could, in the absence of a seismic event, adversely affect or be aggravated by the
18 construction and operation of the facility, and that the certificate holder can design, engineer, and
19 construct the proposed Carty Solar Farm to avoid dangers to human safety and the environment
20 presented by the identified hazards.

21
22 **Conclusions of Law**

23
24 Based on the evidence presented in the amendment request, and in accordance with OAR 345-
25 022-0020(2), the Department recommends the Council find that with existing and recommended
26 amended site certificate conditions, the certificate holder has the ability to design and construct
27 the proposed Carty Solar Farm to avoid dangers to human safety presented by the non-seismic
28 hazards identified at the site.

29
30 **III.D. Soil Protection: OAR 345-022-0022**

31
32 *To issue a site certificate, the Council must find that the design, construction and operation*
33 *of the facility, taking into account mitigation, are not likely to result in a significant adverse*
34 *impact to soils including, but not limited to, erosion and chemical factors such as salt*
35 *deposition from cooling towers, land application of liquid effluent, and chemical spills.*

36
37 **Findings of Fact**

38
39 The Soil Protection standard requires the Council to find that the design, construction, and
40 operation of the facility are not likely to result in significant adverse impacts to soil.

1 The analysis area for the Soil Protection standard is the area within the site boundary. The
2 proposed amended site boundary includes 1,581 acres and ~~that~~ the proposed Carty Solar Farm
3 would permanently disturb approximately 321.5 acres.¹²

4 5 Existing Soil Conditions and Land Use

6
7 Existing soil conditions within the analysis area are described and shown in RFA1 Exhibit I, and
8 specifically discussed within Table I-1 and Figure I-1. Exhibit I, Table I-1 describes soils units,
9 including erosion potential by soil type. The certificate holder classified soil types using the Natural
10 Resources Conservation Service (NRCS) Soil Survey Geographic Database. As stated in Figure I-1,
11 the majority of land proposed for solar arrays is classified as sagehill fine sandy loam, but also
12 includes dune land. These soil classifications are described in further detail below.

13
14 In addition to the land proposed for the Carty Solar Farm, the certificate holder proposes to build a
15 transmission line from the solar farm to one of three interconnection points. If PGE determines
16 that an interconnection point at the Grassland Switchyard is necessary, then it proposes to expand
17 the size of the Grassland Switchyard by 6.5 acres. The interconnection routes are described in the
18 Certificate Holder's Exhibits B, C, and K. ~~According to~~ Figure I-1, provides the soil classifications for
19 the various transmission routes and Grassland Switchyard expansion ~~would all be sited on land~~
20 ~~classified as sagehill fine sandy loam soil.~~

21
22 Sagehill fine sandy loam soils are considered to be "very deep, well-drained soil formed in wind-
23 laid material and calcareous lacustrine sediment." Sagehill fine sandy loam soils are considered to
24 be between classes IVe to VI as "dryland" and are considered to be between classes IIe to VIe
25 irrigated. Erosion risks to sagehill fine sandy loam are "slight" and the risk from "soil blowing" is
26 "moderate." As noted throughout the RFA1 and this proposed order, the land proposed for the
27 solar farm is not currently irrigated, and there is no record that the land has been previously used
28 for either agricultural or grazing purposes.

29
30 Dune land soils are considered to be "excessively drained sand eolian soil. Permeability is very
31 rapid." This soil is considered to be class VIIIe if it is dryland and is not rated for irrigated land. This
32 soil is not suitable for grazing or agricultural purposes. The risk of wind erosion is "high," while the
33 risk from water erosion is "slight."

¹² CGSRFA1 Exhibit C, p. C-2. 2018-02-20.

1 Potential Significant Adverse Impacts to Soil

2
3 RFA1 Exhibit I includes the certificate holder's assessment of potential soil impacts, which may
4 arise from the construction or operation of the solar farm.

5
6 Potential impacts to soils within the analysis area (proposed amended site boundary) could
7 occur during construction of the proposed Carty Solar Farm from: soil erosion from wind or
8 rain; spills or leakage from power-driven equipment; soil compaction; or other damage arising
9 from construction debris and other construction pollutants. Potential soil impacts during
10 construction-related activities also includes risk from introduction or spreading of invasive
11 weeds, within the site boundary, through the use of transportation equipment.¹³ Potential
12 impacts to soils within the analysis area could occur during operations, although impacts are
13 expected to be minimal given the nature of operational activities. Potential operational impacts
14 to soils include soil erosion resulting from construction-related activities, but in areas not yet
15 stabilized at the time of operations, spills or leakage from power driven equipment, and
16 disposal of solar panel washwater.

17
18 Impacts related to soil compaction and introduction of noxious weeds is discussed in Section
19 III.E. *Land Use* of this order. The evaluation of potential impacts to soils during construction and
20 operation focuses on erosion, spills, and disposal or discharge of solar panel washwater. Council
21 previously imposed several conditions that would minimize these potential impacts. Erosion
22 control measures would be implemented during construction in accordance with Condition 9.1
23 and 9.4. Conditions 9.1 and 9.4 require the certificate holder to, during construction,
24 implement and conduct monthly inspections of erosion and sediment control measures and
25 best management practices in accordance with the DEQ-approved National Pollutant Discharge
26 Elimination System Construction Stormwater Discharge General Permit (NPDES) 1200-C.
27 Measures and best management practices to be implemented during facility construction, as
28 required under the NPDES 1200-C permit, are provided in the draft Erosion and Sediment
29 Control Plan provided in Attachment F of this order.¹⁴ Erosion control measures would be
30 maintained during operations until conditions are stabilized, and as confirmed by DEQ, per the
31 NPDES 1200-C. Condition 9.4 and 9.5 require the certificate holder to, during operations,

¹³ CGSAMD1. RFA1 Exhibit I, p. I-5. 2018-02-20.

¹⁴ CGSAMD1. RFA1 Exhibit I. 2018-02-20. The certificate holder notes that the ESCP, as provided in Attachment G of this order, includes measures that would apply to Unit 2 and Unit 3, which are no longer requested for approval under this amendment request. The Department confirmed that, based upon confirmation from the certificate holder that Unit 2 and Unit 3 were no longer proposed, the plans would not need to be revised to reflect the removal of these components, but that measures specific to these components would be considered inapplicable.

1 monitor, inspect and maintain areas of disturbance and ensure that sediment control measures
2 are sufficient for erosion control.

3
4 In RFA1, the certificate holder requests Condition 9.4 be amended to remove subparts (a)
5 through (d), which include specific requirements of the NPDES 1200-C applicable during
6 construction of Unit 1. The NPDES 1200-C permit has not yet been terminated, and soil
7 stabilization measures required for impacts resulting from construction of Unit 1 continue.¹⁵
8 However, because (a) through (d) apply to Unit 1 construction, which was completed in 2016
9 and therefore no longer apply, the Department recommends Council amend Condition 9.4, as
10 presented in Attachment A of this order.

11
12 The Department recommends Council find that based upon compliance with existing
13 conditions, potential soil erosion impacts during construction and operation would not likely be
14 significant or adverse.

15
16 Potential adverse impacts to soils could occur during construction and operation from leakage
17 or spills from power driven equipment or from oil-containing equipment (transformers).
18 Council previously imposed Condition 5.9 and 10.36 requiring the certificate holder to, during
19 construction and operation, develop and implement a Spill Prevention Control and
20 Countermeasures (SPCC) Plan.¹⁶ The certificate holder describes that the SPCC plans require oil-
21 containing equipment or containers with a volume of 55 gallons or greater to be maintained
22 within secondary containment, and require containment structures to be kept empty of liquids
23 and other material to provide maximum containment capacity. In addition, the certificate
24 holder has developed and maintains Oil Spill Response Procedures, which are included with the
25 SPCC plan. The Department recommends Council find that development and implementation of
26 a construction and operational SPCC Plan, as required through existing site certificate
27 conditions, would minimize potential adverse impacts to soils during a spill event.

¹⁵ CGSOPSDoc2. 2017 Annual Report. 2018-04-30.

¹⁶ Federal SPCC regulations do not require SPCC plans during construction; therefore, the construction plan would not be submitted to DEQ or the United States Environmental Protection Agency. An SPCC plan is required for operation of a facility if the total aboveground storage capacity of oil and oil products exceeds 1,320 gallons, and if, because of its location, the facility could reasonably be expected to discharge oil into navigable waters of the United States. The oil storage locations at the Carty Generating Station are located a considerable distance from navigable waters; therefore, it is not reasonably expected that a potential oil spill would reach navigable waters of the United States. Accordingly, the SPCC rule under 40 Code of Federal Regulations 112 would not apply. However, Site Certificate Condition 5.9 requires PGE to develop an SPCC plan for the Carty Generating Station; PGE therefore would be required to update the SPCC plan to reflect new amounts and locations of oil-containing equipment or containers; the additional amounts and locations of oil will not result in any new or modified measures to avoid or mitigate adverse impacts to soils.

Potential adverse impacts to soils could occur during disposal or discharge of solar panel washwater during solar panel washing. The certificate holder included a request to modify its Water Pollution Control Facility (WPCF) permit application to allow disposal through onsite evaporation and seepage.

The certificate holder maintains a WPCF permit (100189), issued by DEQ but governed by the site certificate. The WPCF currently includes conditions applicable to the disposal of wastewater from washing equipment and vehicles, as well as washing concrete truck chutes and exteriors. Disposal of solar panel washwater is not addressed in the WPCF permit and therefore requires a permit amendment.

Solar panel washing will be conducted on an as-needed basis and may not occur every year. Each time panel washing is deemed necessary, the certificate holder expects to use 0.65 to 1.6 million gallons (MG) of demineralized water or municipal water, which will be obtained from Carty Reservoir or hauled to the site from a municipal source. Chemicals, soaps, detergents and heat will not be added to the water. Water would be sprayed onto the panels and allowed to run off the panels directly onto the ground. Based on the area of the proposed Carty Solar Farm, washwater application rate would be 0.08 to 0.19 inches of water per acre per event. Erosion impacts are not expected due to the low application rate and the presence of sandy soils at the site, which promote seepage.

The Department received DEQ's technical analysis and draft amended WPCF in June 2018, which includes a condition that allows disposal of solar panel washwater on the ground at the point of application. It prohibits the use of chemicals, soaps, detergents and heated water. Pressure washing is allowed so long as it does not remove paint or other finishes. Soil erosion and runoff are prohibited and any soil erosion must be repaired within 30 days of occurrence. Environmental monitoring is required during panel washing operations. Council previously imposed Condition 10.28 requiring that the certificate holder comply with the requirements of the WPCF. Based on the proposed WPCF permit modification and DEQ's recommended condition, the Department recommends Council amend Condition 10.28 as follows:

Condition 10.28, as amended: Before beginning operation of the facility, the certificate holder shall demonstrate that the Oregon Department of Environmental Quality has issued to the certificate holder:

- i. A Water Pollution Control Facilities Permit substantially in the form of Exhibit 4 of the *Final Order on the Application*, allowing for wastewater discharge from the Carty Generating Station.
[Final Order V.E.2.1]
- ii. A modified Water Pollution Control Facilities Permit with the following additional condition, allowing discharge of solar panel washwater:
 - a. Solar panel wash water is permitted to be discharged through evaporation or infiltration into the ground at the point of application. The use of chemicals, soaps, detergents and heated water is prohibited. Pressure washing is allowed, so long as it does not remove paint or other finishes. Soil erosion

1 and runoff from the Carty Solar Farm is prohibited. Soil erosion must be
2 repaired within 30 days of occurrence.
3 [AMD1]
4

5 **Conclusions of Law**
6

7 Based on the reasoning discussed above, and subject to continued compliance with the existing
8 and recommended amended condition, the Department recommends that the Council find that
9 the facility, as amended, would comply with the Council's Soil Protection standard.

10 **III.E. Land Use: OAR 345-022-0030**
11

12 *(1) To issue a site certificate, the Council must find that the proposed facility complies with*
13 *the statewide planning goals adopted by the Land Conservation and Development*
14 *Commission.*
15

16 *(2) The Council shall find that a proposed facility complies with section (1) if:*
17 *****

18 *(b) The applicant elects to obtain a Council determination under ORS 469.504(1)(b) and*
19 *the Council determines that:*
20

21 *(A) The proposed facility complies with applicable substantive criteria as described in*
22 *section (3) and the facility complies with any Land Conservation and Development*
23 *Commission administrative rules and goals and any land use statutes directly*
24 *applicable to the facility under ORS 197.646(3);*
25

26 *(B) For a proposed facility that does not comply with one or more of the applicable*
27 *substantive criteria as described in section (3), the facility otherwise complies with*
28 *the statewide planning goals or an exception to any applicable statewide planning*
29 *goal is justified under section (4); or*
30

31 *(C) For a proposed facility that the Council decides, under sections (3) or (6), to*
32 *evaluate against the statewide planning goals, the proposed facility complies with*
33 *the applicable statewide planning goals or that an exception to any applicable*
34 *statewide planning goal is justified under section (4).*
35

36 *(3) As used in this rule, the "applicable substantive criteria" are criteria from the affected*
37 *local government's acknowledged comprehensive plan and land use ordinances that are*
38 *required by the statewide planning goals and that are in effect on the date the applicant*
39 *submits the application. If the special advisory group recommends applicable*
40 *substantive criteria, as described under OAR 345-021-0050, the Council shall apply them.*
41 *If the special advisory group does not recommend applicable substantive criteria, the*
42 *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

The Council must apply the Land Use standard in conformance with the requirements of ORS 469.504. Under ORS 469.504(1)(b)(A), the Council may find compliance with statewide planning goals if the Council finds that the amendment request "complies with applicable substantive criteria from the affected local government's acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and in effect on the date the application is submitted" (the initial amendment request was received on August 29, 2016).

The analysis area for potential land use impacts, as defined in the project order, is the area within and extending ½-mile from the site boundary, as amended.

As described in Section II.A. *Requested Amendment* of this order, the amendment request includes: a 50 MW solar photovoltaic unit, 5 interconnection options, and temporary construction laydown and parking areas (Carty Solar Farm); 34.5 kV transmission line with 5 routing options; and, site boundary changes. The components proposed in the amendment request would be located entirely within Morrow County; therefore, Morrow County is the

1 affected local governments for purposes of the evaluation necessary for compliance with the
2 Council's Land Use standard. The Council appointed the Morrow County Court, the governing
3 body for Morrow County, as a Special Advisory Group (SAG), during the application phase, on
4 November 19, 2009. On January 9, 2017, the Morrow County Court became known as the
5 Morrow County Board of Commissioners. Because the change in governing body did not result
6 in a substantial change in scope of authority, the 2009 appointment remains in effect for
7 subsequent amendment proceedings with proposed components located within Morrow
8 County. The Department provided notice of this amendment request to the Morrow County
9 SAG on September 1, 2016 and March 5, 2018. The applicable substantive criteria include
10 provisions from Morrow County Zoning Ordinance (MCZO) and the acknowledged 2016
11 Morrow County Comprehensive Plan.

12
13 Previously approved but not yet constructed facility components, including the 18-mile 500 kV
14 transmission line, would have been located within Gilliam County. As described in Section II.A.
15 *Requested Amendment* of this order, the certificate holder no longer maintains authorization
16 for the construction and operation of facility components associated with Unit 2, as the site
17 certificate authorization for these facility components expired in June 2017. Conditions
18 previously imposed under the Council's Land Use standard based on potential impacts that
19 would have occurred within Gilliam County are recommended, in this section of the order, for
20 removal from the site certificate, as there are no facility components or components proposed
21 in the amendment request that would occur within Gilliam County.

22
23 The components proposed in the amendment request would be located within land zoned
24 Exclusive Farm Use (EFU) and General Industrial (MG), as presented in RFA1 Exhibit K, Figure K--
25 1. Therefore, the applicable substantive criteria for which the certificate holder must comply
26 are presented in Table 1, *Applicable Substantive Criteria* below.

Table 1: Morrow County Applicable Substantive Criteria

Morrow County Zoning Ordinance (MCZO)	
<i>Article 1 – Introductory Provisions</i>	
Section 1.050	Zoning Permit
<i>Article 3 – Use Zones</i>	
Section 3.010	Exclusive Farm Use, EFU Zone
Section B	Uses Permitted Outright
Section C	Conditional Uses
Section D	Use Standards
Section K	Photovoltaic Solar Power Generation Facility
Section M	Yards
Section N	Transportation Impacts
Section 3.070	General Industrial Zone
Section A	Uses Permitted Outright
Section D	Dimension Requirements
Section E	Transportation Impacts
<i>Article 4 – Supplementary Provisions</i>	
Section 4.165	Site Plan Review
<i>Article 6 – Conditional Uses</i>	
Section 6.015	Requirements Under a State Energy Facility Site Certificate
Section 6.020	General Criteria
Section 6.025	Resource Zone Standards for Approval
Section 6.030	General Conditions
Section 6.040	Permit and Improvements Assurance
Section 6.050	Standards Governing Conditional Uses
Morrow County Comprehensive Plan	
Agricultural Policy 1 and 4	
Energy Policies 3 and 9	
Economic Element Policy 2A, 3A, 5A and 6C	

- 1
- 2 The land use approvals and development permits required from Morrow County for the
- 3 amendment request are presented in Table 2, *Requested Land Use Approvals and Permits*.

Table 2: Requested Land Use Approvals and Permits

Permit or Approval	Relevant Criteria	Applicable to:
Zoning, Building, and Conditional Use Permits (Exclusive Farm use)	MCZO 3.010	Carty Solar Farm, Points of Interconnection
Zoning and Building Permits (General Industrial)	MCZO 3.070	34.5 kV Transmission Line (Five Routing Options)
Note that the conditional use permit would be one document, which would govern two separate land use permits.		

As presented in the following section, the Department recommends Council find that the certificate holder demonstrates that the components of the amendment request would comply with all of the applicable substantive criteria in Morrow County. However, because the proposed Carty Solar Farm would “preclude more than 12 acres of high-value farmland or 20 acres of other land from commercial farm use” within Morrow County, the applicable substantive criteria of MCZO Section 3.010(K)(3)(f) would not be met. Based upon non-compliance with MCZO Section 3.010(K)(3)(f), the certificate holder requests an exception to Statewide Planning Goal 3 which, if Council finds is justified pursuant to ORS 469.504(1)(b)(B), would authorize the use of more than 12 acres of high-value farmland and more than 20 acres of other land within Morrow County. An evaluation of the certificate holder’s requested goal exception is presented in this section (see Section III.E.2).

III.E.1. Morrow County Zoning Ordinance (MCZO)

The certificate holder assessed the segments of the proposed 34.5 kV intraconnection transmission line and Grassland Switchyard buildout within Morrow County’s Exclusive Farm Use (EFU) zone under the “associated transmission line” and “utility facilities necessary for public service” land use categories, respectively.¹⁷ The certificate holder assessed the proposed 50 MW solar unit within Morrow County’s EFU zone, including PV solar arrays, PV panels and racking system, connector lines and collection system, inverter stations, switchgear, conductors, access roads, and laydown areas under the “photovoltaic solar power generation facility” land use category.

As described below, MCZO Section 3.010(K)(3)(e), which mirrors the requirements of DLCD’s OAR 660-030-0130(38)(e), defines a photovoltaic solar power generation facility as including, but not limited to:

¹⁷ ORS 469.300(3) defines an “associated transmission line” as “new transmission lines constructed to connect an energy facility to the first point of junction of such transmission line or lines with either a power distribution system or an interconnected primary transmission system or both or to the Northwest Power Grid.”

1 “..an assembly of equipment that converts sunlight into electricity and then stores,
2 transfers, or both, that electricity. This includes photovoltaic modules, mounting and solar
3 tracking equipment, foundations, inverters, wiring, storage devices and other components.
4 Photovoltaic solar power generation facilities also include electrical cable collection systems
5 connecting the photovoltaic solar generation facility to a transmission line, **all necessary**
6 **grid integration equipment**, new or expanded private roads constructed to serve the
7 photovoltaic solar power generation facility, office, operation and maintenance buildings,
8 staging areas **and all other necessary appurtenances**. For purposes of applying the acreage
9 standards of this section, a photovoltaic solar power generation facility includes all existing
10 and proposed facilities on a single tract, as well as any existing and proposed facilities
11 determined to be under common ownership on lands with fewer than 1320 feet of
12 separation from the tract on which the new facility is proposed to be sited. Projects
13 connected to the same parent company or individuals shall be considered to be in common
14 ownership, regardless of the operating business structure. A photovoltaic solar power
15 generation facility does not include a net metering project established consistent with ORS
16 757.300 and OAR chapter 860, division 39 or a Feed-in-Tariff project established consistent
17 with ORS 757.365 and OAR chapter 860, division 84.”
18

19 Based on the regulatory definition referenced above, the Department recommends Council
20 agree with the evaluation of the proposed 34.5 kV intraconnection transmission line as an
21 “associated transmission line.” The Department, however, recommends Council find that the
22 proposed Grassland Switchyard buildout, because it includes equipment for the specific
23 purpose of interconnecting the proposed Carty Solar Farm to the grid (i.e. considered necessary
24 grid interconnection equipment), that it and its associated impacts be considered as part of the
25 “photovoltaic solar power generation facility” and not as a “utility facilities necessary for public
26 service.” The recommended land use category would be consistent with historic Council
27 decisions and evaluation of facility components within EFU-zoned land.¹⁸
28

29 The following analysis addresses the applicable substantive criteria identified in the MCZO.
30

31 MCZO Section 1.050 Introductory Provisions, Zoning Permit
32

33 *Prior to the construction, reconstruction, alteration, or change of use of any structure*
34 *larger than 100 square feet or use for which a zoning permit is required, a zoning permit*
35 *for such construction, reconstruction, alteration, or change of use or uses shall be*
36 *obtained from the Planning Director or authorized agent thereof. A zoning permit shall*
37 *become void after 1 year unless the development action has commenced. A 12-month*
38 *extension may be granted when submitted to the Planning Department prior to the*
39 *expiration of the approval period.*
40

¹⁸ BSEAPDoc92. Final Order on ASC. 2018-02-23.
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1 MCZO Section 1.050 requires projects larger than 100 square feet, including the construction,
2 reconstruction, alteration or change of use of any structure, or use for which a zoning permit is
3 required, to obtain a zoning permit. A zoning permit, as described in Article 1, is issued prior to
4 a building permit, or prior to commencement of a use subject to administrative review, and
5 states that the proposed use is in accordance with requirements of the corresponding land use
6 zone.

7
8 The construction and operation of the amendment request would alter or change the existing
9 land use by more than 100 square feet. Therefore, the certificate holder would be required to
10 obtain a zoning permit, which would be subject to administrative review under the provisions
11 of MCZO Article 4.165. As described below, existing Condition 4.6 requires that the certificate
12 holder obtain all necessary local permits, including the zoning permit; this condition would
13 apply to the proposed Carty Solar Farm. Moreover, the Council presents its evaluation of the
14 certificate holder's MCZO Section 4.165 compliance assessment below. Based upon
15 compliance with existing Condition 4.6 and consistency with MCZO Section 4.165 provisions,
16 the Department recommends Council find that the components proposed in the amendment
17 request would satisfy the MCZO Section 1.050 provision.

18
19 MCZO Section 3.010 Exclusive Farm Use, EFU Zone

20
21 *MCZO 3.010(B) Uses Permitted Outright*

22 *In the EFU zone, the following uses and activities and their accessory buildings and*
23 *uses are permitted subject to the general provisions set forth by this ordinance:*

24
25 *24. Utility facilities necessary for public service, including associated transmission*
26 *lines as defined in Article 1 and wetland waste treatment systems, but not*
27 *including commercial facilities for the purpose of generating electrical power for*
28 *public use by sale or transmission towers over 200 feet in height as provided in*
29 *Subsection D.10.*

30
31 *MCZO 3.010(D)(10) establishes the following standards for a "utility facilities necessary for*
32 *public services" that is an associated transmission line:*

33
34 *b. An associated transmission line is necessary for public service upon demonstration*
35 *that the associated transmission line meets either the following requirements of*
36 *Subsection (1) or Subsection (2) of this Subsection.*

37 *****

38 *1. After an evaluation of reasonable alternatives, an applicant demonstrates that*
39 *the entire route of the associated transmission line meets, subject to Subsections*
40 *D.10.b(3) and (4), two or more of the following criteria:*

41 *(a) Technical and engineering feasibility;*

42 *(b) The associated transmission line is locationally-dependent because the*
43 *associated transmission line must cross high-value farmland, as defined in*

- 1 *ORS 195.300, or arable land to achieve a reasonably direct route or to meet*
2 *unique geographical needs that cannot be satisfied on other lands;*
3 (c) *Lack of an available existing right of way for a linear facility, such as a*
4 *transmission line, road or railroad, that is located above the surface of the*
5 *ground;*
6 (d) *Public health and safety; or*
7 (e) *Other requirements of state or federal agencies.*
8

9 MCZO Section 3.010(D)(10) adopts ORS 215.283(1)(c), which establishes that “utility facilities
10 necessary for public service” and their accessory buildings and uses within an EFU zone are
11 permitted outright. If a utility facility necessary for public service is an associated transmission
12 line, the use may be established in EFU-zoned land as provided in MCZO 3.010(D)(10)(b), as
13 long as the use meets the requirements of either subsection (1) or subsection (2).¹⁹ The
14 certificate holder evaluated the proposed interconnection options against the requirements of
15 subsection (2), which first requires a demonstration that reasonable alternatives have been
16 considered, and then that the associated transmission line must be sited in an EFU zone due to
17 one or more of the factors identified in MCZO 3.010(D)(10)(b)(2)(a) – (e). The certificate holder
18 evaluated the proposed interconnection options against the requirements of MCZO
19 3.010(D)(10)(b)(2)(b), (c) and (d).
20

21 *Evaluation of Reasonable Alternatives* 22

23 The evaluation of reasonable alternatives pursuant to MCZO 3.010(D)(10)(b)(2) requires that
24 the certificate holder consider whether there are reasonable routing alternatives on non-high
25 value or non-arable land.
26

27 The proposed routing options are presented in RFA1 Exhibit C, Figure C-1. As presented in the
28 figure, the proposed transmission line routing options would be reasonably direct routes from
29 the proposed Carty Solar Farm to each of the proposed interconnection options, while avoiding
30 the Boardman Coal Plant and routing around Carty Reservoir. The certificate holder did not
31 describe whether additional alternatives that would route to the east or due west (and then
32 north) of the proposed Carty Solar Farm were considered. However, based on the Department’s
33 review, such alternatives would cross the South Farm Conservation Area, which is protected by
34 a conservation easement pursuant to the MSCCAA (Attachment D Figure 1). Based on review of
35 aerial imagery, the Department notes that any route west (and then north) would also cross
36 cultivated lands. Because alternatives that would route east or west (and then north) would
37 impact conservation lands, cultivated land, or both, the Department recommends Council find
38 that the certificate holder’s evaluation of five north-northwesterly interconnection
39 transmission line routes demonstrates that reasonable alternatives have been considered.
40

¹⁹ MCZO 3.010(D)(10)(b) mirrors ORS 215.274.
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1 *Locationally Dependent*

2
3 The evaluation under MCZO 3.010(D)(10)(b)(2)(b) requires that the certificate holder show that
4 the proposed 34.5 kV transmission line routing options must be sited on high value farmland or
5 arable land in order to achieve a reasonably direct route or meet unique geographical needs
6 (referred to as “locationally dependent”).

7
8 Each of the proposed 34.5 kV transmission line routing options cross some high-value farmland
9 due to the Columbia Valley American Viticultural Area designation and certain elevation, slope,
10 and aspect criteria (see ORS 195.300(10)(f)). Based upon the distribution of high-value farmland
11 in the site boundary and surrounding areas, as shown in Figure K-3 (see Attachment C of this
12 order), it is likely that any associated transmission line that would connect the proposed Carty
13 Solar Farm to one of the three potential interconnection points must cross high-value farmland
14 in order to achieve a reasonably direct route. Therefore, the Department recommends Council
15 find that the proposed interconnection transmission line options would satisfy MCZO
16 3.010(D)(10)(b)(2)(b).

17
18 *Availability of Existing Linear Facility Right-of-Way*

19
20 The evaluation under MCZO 3.010(D)(10)(b)(2)(c) requires that the certificate holder
21 demonstrate that the proposed 34.5 kV transmission line routing options must be sited on high
22 value farmland or arable land because there is a lack of available existing aboveground linear
23 facility rights-of-way. In the amendment request, the certificate holder describes that the
24 routing options parallel an unimproved road from the north of the proposed Carty Solar Farm,
25 following along the eastern edge of the Carty Reservoir, through the Boardman Plant train loop.

26
27 The certificate holder explains, however, that there are no existing rights-of-way, or
28 combination of rights-of-way, that exist along the entire route of the proposed interconnection
29 transmission line options. Therefore, the Department recommends Council find that the
30 proposed interconnection transmission line options would satisfy MCZO 3.010(D)(10)(b)(2)(c).

31
32 *Other Requirements of State or Federal Agencies*

33
34 MCZO 3.010(D)(10)(b)(2)(e) would be satisfied if, in order to comply with other requirements of
35 state or federal agencies, the associated transmission line was located on high-value farmland
36 or arable land. In this case, the associated transmission line route options are not located on
37 high value farmland or arable land due to requirements of state or federal agencies, and as
38 such, the Department recommends Council find that the proposed interconnection
39 transmission line options would not satisfy MCZO 3.010(D)(10)(b)(2)(e).

40
41 MCZO 3.010(D)(10)(b)(2) requires that two of the five listed criteria be met. As presented
42 above, the Department recommends Council find that each of the five interconnection
43 transmission line options would meet criteria (2)(b) and (2)(c); therefore, the Department also

1 recommends that the Council find that the interconnection transmission line options would
2 comply with the requirements of MCZO 3.010(D)(10)(b)(2).

3
4 *(3) As pertains to Subsection (2), the applicant shall demonstrate how the applicant will*
5 *mitigate and minimize the impacts, if any, of the associated transmission line on*
6 *surrounding lands devoted to farm use in order to prevent a significant change in accepted*
7 *farm practices or a significant increase in the cost of farm practices on the surrounding*
8 *farmland.*
9

10 The evaluation under MCZO 3.010(D)(10)(b)(3) requires that the certificate holder demonstrate
11 that potential impacts from construction and operation of the proposed 34.5 kV
12 interconnection transmission line routing options, located on EFU-zoned land, would not result
13 in a significant change in accepted farm practices or significantly increase the cost of farming
14 practices on surrounding lands.
15

16 Farming practices on surrounding lands is conducted by Threemile Canyon Farm, which utilizes
17 approximately 35,000 acres for cultivation, using center pivot with primary crops being
18 potatoes, onions and specialty wheat. Threemile Canyon Farms, at the closest point to the
19 proposed amended site boundary is located 375 feet north and 700 feet west of the Grassland
20 Switchyard. The proposed 34.5 kV interconnection transmission line routing options would not
21 cross any cultivated land, would not alter or reduce the area under cultivation on surrounding
22 lands, would not necessitate relocating any access routes or farm infrastructure, and would not
23 result in changes to the practices for planting, irrigating, fertilizing or harvesting circles
24 operated by Threemile Canyon Farms.²⁰
25

26 For these reasons, the Department recommends Council find that the certificate holder has
27 selected a transmission line alignment that avoids impacts to accepted farming practices and
28 would not result in a significant increase in the cost of farm practices on the surrounding
29 farmland.
30

31 *(4) The county may consider costs associated with any of the factors listed in Subsection (2),*
32 *but consideration of cost may not be the only consideration in determining whether the*
33 *associated transmission line is necessary for public service.*
34

35 The evaluation under MCZO 3.010(D)(10)(b)(4) allows the applicable regulatory entity to
36 consider the financial implication of factors evaluated under MCZO 3.010(D)(10)(b)(2). The
37 certificate holder did not substantively consider the cost of land in the evaluation of potential
38 transmission line routes. However, the Department notes that the majority of land within the
39 analysis area is zoned EFU, which would result in increased cost from any potential alternatives
40 requiring significantly longer routes. The Department therefore recommends Council find that

²⁰ CGSAMD1. RFA1 Exhibit K, Section K.5.2. 2018-02-20
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1 because cost was not substantively considered in the evaluation, the proposed 34.5 kV
2 intraconnection transmission line routing options are necessary for public service pursuant to
3 the factors set forth in MCZO 3.010(D)(10)(b)(2).

4
5 *MCZO 3.010(C) Conditional Uses*

6 *In the EFU zone, the following uses are permitted subject to county review, any*
7 *specific standards for the use set forth in Section D, Article 6, the general standards*
8 *for the zone, and any other applicable standards and review process in the*
9 *ordinance:*

10
11 *(24) Photovoltaic solar power generation facilities as commercial utility facilities for*
12 *the purpose of generating power for public use by sale subject to Subsection K.3.*

13
14 *MCZO 3.010(K)(3) – Photovoltaic Solar Power Generation Facility*

15 *3. Photovoltaic Solar Power Generation Facility. A proposal to site a photovoltaic solar*
16 *power generation facility shall be subject to the following definitions and provisions:*

17
18 With the exception of the proposed 34.5 kV intraconnection transmission line, which is
19 addressed and allowed under MCZO Section 3.010(B)(24), all components of the proposed
20 Carty Solar Farm, including the proposed POIs and Grassland Switchyard buildout would be part
21 of the “photovoltaic solar power generation facility.” This use is permitted in the EFU Zone
22 subject to demonstration of compliance with the requirements of MCZO Article 6 Section D, as
23 addressed below.

24
25 MCZO 3.010(C)(24) identifies “photovoltaic solar power generation facilities as commercial
26 utility facilities for the purpose of generating power for public use by sale subject to Subsection
27 K.3” as a conditional use in EFU-zoned land and establishes limits of 12 acres for high value
28 farmland, 20 acres for arable lands, and 320 acres from nonrable lands depending upon the soil
29 capability of the land. The certificate holder’s analysis presented in RFA1 Exhibit K relies upon
30 this land use category for evaluating compliance with the local code and a demonstration of
31 compliance with the Council’s Land Use standard. The components proposed in the
32 amendment request would preclude more than 12 acres of high-value farmland and more than
33 20 acres of non-arable land from commercial farm use and therefore under the MCZO a Goal 3
34 exception would be needed.

35
36 The Oregon Land Conservation and Development Commission (LCDC) adopted specific rules at
37 OAR 660-033-0130(38) for photovoltaic solar power generation facilities to address the specific
38 impacts of these facilities on agricultural lands. OAR 660-033-0130(38) is incorporated within
39 the Morrow County Zoning Ordinance as MCZO 3.010(K)(3). LCDC’s solar rules, and therefore
40 MCZO 3.010(K)(3), establish specific requirements for facilities that would preclude 12 or more
41 acres of high-value farmland, or 20 acres of arable land, from use as a commercial agricultural
42 enterprise. For such facilities to receive land use approval, an exception must first be taken
43 pursuant to ORS 197.732 and OAR Chapter 660, division 4.

1 As explained in RFA1 Exhibit K, the proposed Carty Solar Farm and its related or supporting
2 facilities would be located on soils meeting the definition of “arable land” and, based on its
3 location within the Columbia Valley AVA, and meeting certain requirements for elevation,
4 slope, and aspect, portions of the proposed facility components would also be located on “high-
5 value farmland” pursuant to ORS 195.300(10)(f)(C).²¹ The evaluation required under MCZO
6 3.010(K)(3) for proposed solar power generation facilities located on high-value farmland and
7 arable land is presented below.

8
9 *f. For high-value farmland described at ORS 195.300(10), a photovoltaic solar power*
10 *generation facility shall not preclude more than 12 acres from use as a commercial*
11 *agricultural enterprise unless an exception is taken pursuant to ORS 197.732 and OAR*
12 *chapter 660, division 4. The governing body or its designate must find that:*

13
14 MCZO 3.010(K)(3)(f) establishes that for projects that would be sited on 12 acres or more of
15 high-value farmland, an exception is required pursuant to ORS 197.732 and OAR Chapter 660,
16 division 4. The proposed Carty Solar Farm and its related or supporting facilities would be sited
17 on approximately 57 acres of high-value farmland; therefore, the certificate holder has
18 requested a Goal 3 exception.²² The Department’s assessment of the certificate holder’s Goal 3
19 exception request is evaluated in Section III.E.4 below and recommends that the Council find
20 that an exception to Goal 3 is justified under ORS 469.504(2)(c) and OAR 345-022-0030(4).
21 MCZO 3.010(K)(3)(f) also requires a demonstration that the proposed photovoltaic solar power
22 generation facility would not create unnecessary negative impacts on agricultural operations,
23 unnecessary soil erosion or loss, unnecessary soil compaction, unabated introduction or spread
24 of noxious weeds, and provide an evaluation of the availability of non high-value farmland on
25 the subject tract.²³

²¹ MCZO 3.010(K)(3)(a) defines “arable land” as “land in a tract that is predominantly cultivated or, if not currently cultivated, predominantly comprised of arable soils.” MCZO 3.010(K)(3)(b) defines “arable soils” as “soils that are suitable for cultivation as determined by the governing body or its designate based on substantial evidence in the record of a local land use application, but “arable soils” does not include high-value farmland soils described at ORS 195.300(10) unless otherwise stated.”

²²CGSAMD1 Request for Additional Information Responses. 2018-09-24. In RFA Exhibit K the certificate holder stated that the entire site is “high-value farmland” due to its location within the 11-million acre Columbia Valley American Viticulture Area (AVA). The Department notes that pursuant to ORS 195.300(10)(f)(C), land that is within an exclusive farm use zone within the Columbia Valley AVA is not considered high-value farmland solely because it is within the Columbia Valley AVA. ORS 195.300(10)(f)(C) includes the following five specific criteria that apply for determining whether the land is considered “high-value farmland:” 1) land zoned exclusive farm use; 2) within Columbia Valley viticultural areas as described in 27 C.F.R. 9.74 within the State of Oregon; 3) no more than 3,000 feet above mean sea level; 4) with an aspect between 67.5 and 292.5 degrees; and, 5) slope between zero and 15 percent. In response to the Department’s information request, the certificate holder concluded that a total of 57 acres of the site meet the criteria of ORS 195.300(10)(f)(C) for high-value farmland.

²³ “Tract” is defined in LCDC rule as “one or more contiguous lots or parcels under the same ownership.” OAR 660-033-0020(14).

1 (1) *The proposed photovoltaic solar power generation facility will not create*
2 *unnecessary negative impacts on agricultural operations conducted on any*
3 *portion of the subject property not occupied by project components. Negative*
4 *impacts could include, but are not limited to, the unnecessary construction of*
5 *roads dividing a field or multiple fields in such a way that creates small or*
6 *isolated pieces of property that are more difficult to farm, and placing*
7 *photovoltaic solar power generation facility project components on lands in a*
8 *manner that could disrupt common and accepted farming practices;*
9

10 MCZO 3.010(K)(3)(f)(1) requires the certificate holder to demonstrate that the proposed
11 photovoltaic solar power generation facility would not “create unnecessary negative impacts on
12 agricultural operations conducted on any portion of the subject property not occupied by
13 project components.”
14

15 The subject property does not contain irrigation infrastructure or maintain water rights, both of
16 which would reasonably be necessary to produce crops in the arid climate of Morrow County.
17 The certificate holder describes that the subject property is not currently, nor has it historically,
18 been utilized for agricultural operations; and, is isolated from cultivated farmland by Carty
19 Reservoir and conservation lands protected under the MSCCAA. As described above, farming
20 practices on surrounding lands is conducted by Threemile Canyon Farm, which utilizes
21 approximately 35,000 acres for cultivation, using center pivot with primary crops being
22 potatoes, onions and specialty wheat. Threemile Canyon Farms, at the closest point to the
23 proposed amended site boundary is located 375 feet north and 700 feet west of the Grassland
24 Switchyard. The proposed components associated with the photovoltaic solar power
25 generation facility would not alter or reduce the area under cultivation on surrounding lands,
26 would not necessitate relocating any access routes or farm infrastructure, and would not result
27 in changes to the practices for planting, irrigating, fertilizing or harvesting circles operated by
28 Threemile Canyon Farms.²⁴
29

30 Based on the existing use of the subject property, the Department agrees with the certificate
31 holder’s analysis and recommends that the Council conclude that the proposed photovoltaic
32 power generation facility would not create unnecessary negative impacts on agricultural
33 operations conducted on any portion of the subject property not occupied by facility
34 components and therefore would satisfy the requirements under MCZO 3.010(K)(3)(f)(1).
35

36 (2) *The presence of a photovoltaic solar power generation facility will not result in*
37 *unnecessary soil erosion or loss that could limit agricultural productivity on the*
38 *subject property. This provision may be satisfied by the submittal and county*
39 *approval of a soil and erosion control plan prepared by an adequately qualified*
40 *individual, showing how unnecessary soil erosion will be avoided or remedied and*

²⁴ CGSAMD1. RFA Exhibit K, Section K.5.2. 2018-02-20.
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1 *how topsoil will be stripped, stockpiled and clearly marked. The approved plan*
2 *shall be attached to the decision as a condition of approval;*
3

4 MCZO 3.010(K)(3)(f)(2) requires the certificate holder to demonstrate that the proposed
5 photovoltaic solar power generation facility would not “result in unnecessary soil erosion or
6 loss that could limit agricultural productivity on the subject property” and states that the
7 “provision may be satisfied by submittal and county approval of a soil and erosion control plan
8 prepared by an adequately qualified individual, showing how unnecessary soil erosion will be
9 avoided or remedied and how topsoil will be stripped, stockpiled and clearly marked.”
10

11 Existing Condition 9.1 requires that the certificate holder, during operation, implement a DEQ-
12 approved Erosion and Sediment Control Plan. Existing Condition 5.5 requires that the certificate
13 holder, during construction and operation, implement a Revegetation and Noxious Weed
14 Control Plan. These plans include best management practices to be implemented during
15 construction and operation designed to reduce and minimize unnecessary soil erosion or loss
16 that could limit agricultural productivity within the subject property and on adjacent EFU zoned
17 land. The certificate holder’s Revegetation and Noxious Weed Control Plan (Attachment E to
18 this proposed order) addresses topsoil management, and describes a monitoring program (and
19 remedial measures) for evaluating (and addressing impacts to) long-term soil stability.
20 Consistent with the recommendations included for satisfying MCZO 3.010(K)(3)(f)(2), existing
21 Condition 5.5 also requires the certificate holder to, prior to construction, submit the
22 Revegetation and Noxious Weed Control Plan to the Department and Morrow County Weed
23 Control Supervisor for review and approval. Based upon compliance with the existing
24 conditions, the Department recommends that the Council conclude that the proposed
25 photovoltaic solar power generation facility would satisfy the requirements under MCZO
26 3.010(K)(3)(f)(2).
27

28 *(3) Construction or maintenance activities will not result in unnecessary soil*
29 *compaction that reduces the productivity of soil for crop production. This*
30 *provision may be satisfied by the submittal and county approval of a plan*
31 *prepared by an adequately qualified individual, showing how unnecessary soil*
32 *compaction will be avoided or remedied in a timely manner through deep soil*
33 *decompaction or other appropriate practices. The approved plan shall be*
34 *attached to the decision as a condition of approval;*
35

36 MCZO 3.010(K)(3)(f)(3) requires the certificate holder to demonstrate that the proposed
37 photovoltaic solar power generation facility would not “result in unnecessary soil compaction
38 that reduces the productivity of soil for crop production.” While RFA1 Exhibit K does not
39 specifically address how unnecessary soil compaction would be avoided, in RFA1 Exhibit B the
40 certificate holder describes that access roads would be constructed along the interior of the
41 array field for maintenance access and that site access would be provided through an existing
42 gravel road from the northeast corner. Therefore, unnecessary soil compaction from vehicle
43 and equipment transport on non-road areas would not be expected.
44

1 Soil decompaction measures would be implemented, as necessary, including scarification,
2 ripping compacted soils to a depth of 12 inches, and roughening the soil to provide maximum
3 seed-soil contact. These measures are reflected in the draft Revegetation and Noxious Weed
4 Control Plan (Attachment E of this order). As stated previously, existing site certificate condition
5 5.5 requires the certificate holder to implement this plan and, prior to construction, to submit
6 the plan to the Department, Morrow County Weed Control Supervisor, and the Gilliam County
7 Weed Control Officer for review and approval. Based upon compliance with the existing
8 condition, the Department recommends that the Council conclude that the proposed Carty
9 Solar Farm would not result in unnecessary soil compaction and would satisfy the requirements
10 under MCZO 3.010.K.3.f(3).

11
12 *(4) Construction or maintenance activities will not result in the unabated*
13 *introduction or spread of noxious weeds and other undesirable weed species. This*
14 *provision may be satisfied by the submittal and county approval of a weed*
15 *control plan prepared by an adequately qualified individual that includes a long-*
16 *term maintenance agreement. The approved plan shall be attached to the*
17 *decision as a condition of approval;*

18
19 MCZO 3.010.K.3.f(4) requires the certificate holder to demonstrate that the proposed energy
20 facility would not result in the “unabated introduction or spread of noxious weeds and other
21 undesirable weed species.” The certificate holder would minimize the likelihood of unabated
22 introduction or spread of noxious weeds through implementation of the Revegetation and
23 Noxious Weed Control Plan. Existing site certificate condition 5.5 requires the certificate holder
24 to implement this plan and, prior to construction, to submit the plan to the Department,
25 Morrow County Weed Control Supervisor, and the Gilliam County Weed Control Officer for
26 review and approval. Based upon compliance with the existing condition, the Department
27 recommends that the Council conclude that the proposed Carty Solar Farm would not result in
28 unabated introduction or spread of noxious weeds and other undesirable weed species and
29 would satisfy the requirements under MCZO 3.010.K.3.f(4).

30
31 *(5) The project is not located on high-value farmland soils unless it can be*
32 *demonstrated that:*
33 *(a) Non high-value farmland soils are not available on the subject tract;*
34 *(b) Siting the project on non high-value farmland soils present on the subject*
35 *tract would significantly reduce the project’s ability to operate*
36 *successfully; or*
37 *(c) The proposed site is better suited to allow continuation of an existing*
38 *commercial farm or ranching operation on the subject tract than other*
39 *possible sites also located on the subject tract, including those comprised*
40 *of non high value farmland soils; and*
41

42 MCZO 3.010.K.3.f(5) requires the certificate holder to demonstrate that: a) non high-value
43 farmland soils are not available on the subject tract; b) siting the project on non high-value
44 farmland soils, if present, would significantly impact the project’s ability to operate

1 successfully; or c) the site is better suited than other possible sites (including those comprised
2 of non high-value farmland soils) because it would allow continued operation of an existing
3 commercial farm or ranching operation on the subject tract.

4
5 As shown on Figure K-1 (Attachment C of this order), non high-value farmland soils are
6 available on the subject tract; therefore, the Department does not recommend that the
7 Council find that the facility meets criterion (a). Because there is not an existing commercial
8 farm or ranching operation on the subject tract, it is not possible to find that the site is better
9 suited than other possible sites on the tract to allow continued operation of an existing
10 commercial farm or ranching operation. Therefore, the Department also does not recommend
11 the Council find that the facility would meet criterion (c). However, MCZO 3.010.K.3.f(5) only
12 requires that one of the three listed criteria be met [see the use of the word “or” between
13 MCZO 3.010.K.3.f(5)(b) and (c)]. Based on the reasoning below, the Department recommends
14 that the facility would comply with MCZO 3.010.K.3.f(5)(b) and therefore would comply with
15 the requirements of MCZO 3.010.K.3.f(5).

16
17 MCZO 3.010.K.3.f(5)(b) requires the certificate holder to demonstrate that siting the proposed
18 Carty Solar Farm on non high-value farmland soils, if present, would significantly impact the
19 project’s ability to operate successfully. “Tract” is defined in LCDC rule (OAR 660-033-
20 0020(14).) as “one or more contiguous lots or parcels under the same ownership.” The
21 certificate holder’s Figure K-1 (Attachment C of this order), depicts parcels owned or co-owned
22 by PGE within the site boundary and the surrounding area. The area within the site boundary
23 appears to encompass more or less half of the size of the larger tract of contiguous lots co-
24 owned by PGE and Idaho Power Company.²⁵ Parcels of the same ownership are located north
25 and west of the subject tract. However, these parcels are not considered part of the subject
26 tract because they are neither continuous with the lot on which the site boundary would be
27 located nor the adjacent lot under the same ownership.

28
29 As shown on Figure K-2 (Attachment C of this order), the 315 acres of land within the site
30 boundary are comprised of primarily non high-value farmland and but contain approximately
31 57 acres of high-value farmland. As noted elsewhere in this section, the high-value farmland
32 designation in the site boundary is due to its location within the Columbia Valley AVA and
33 certain elevation, slope, and aspect criteria. The high-value farmland forms a “checkerboard”
34 pattern on the landscape. Several limitations appear to constrain PGE’s ability to site the
35 project on non high-value farmland soils outside of the site boundary but within the subject
36 tract. As shown on Figure K-2 (Attachment C of this order), areas of non high-value farmland
37 west of the site boundary and within the subject tract are limited in size and fragmented by
38 larger areas of high-value farmland. The Boardman Ash Disposal Area is located on the subject
39 tract north and east of the site boundary, but is used for disposal of coal ash and is therefore
40 not a suitable site for solar energy generation components. The adjacent tax lot on the subject

²⁵ As shown in RFA Exhibit F, Figure F-1, the relevant tax lot identification numbers for the subject tract are 02n24-00105 and 02n24-00102. CGSAMD1 Revised Request for Amendment 2018-02-20, Exhibit F.

1 tract appears to consist entirely or primarily of submerged and partially submerged lands at
2 the Carty Reservoir and therefore would not be suitable for development of an energy
3 generation facility. Therefore, the Department recommends that the Council conclude that
4 siting the project on non high-value farmland soils present on the subject tract outside of the
5 site boundary would significantly impact the project's ability to operate successfully, and that
6 therefore the requirements MCZO 3.010.K.3.f(5)(b) have been satisfied.

7
8 *(6) A study area consisting of lands zoned for exclusive farm use located within one
9 mile measured from the center of the proposed project shall be established and:*

10 *(a) If fewer than 48 acres of photovoltaic solar power generation facilities
11 have been constructed or received land use approvals and obtained
12 building permits within the study area, no further action is necessary.*

13 *(b) When at least 48 acres of photovoltaic solar power generation have
14 been constructed or received land use approvals and obtained building
15 permits, either as a single project or as multiple facilities within the
16 study area, the local government or its designate must find that the
17 photovoltaic solar energy generation facility will not materially alter the
18 stability of the overall land use pattern of the area. The stability of the
19 land use pattern will be materially altered if the overall effect of existing
20 and potential photovoltaic solar energy generation facilities will make it
21 more difficult for the existing farms and ranches in the area to continue
22 operation due to diminished opportunities to expand, purchase or lease
23 farmland or acquire water rights, or will reduce the number of tracts or
24 acreage in farm use in a manner that will destabilize the overall
25 character of the study area.*

26
27 MCZO 3.010.K.3.f(6) requires the certificate holder to establish a 1-mile study area and
28 evaluate the presence of other approved and developed solar facilities, and identifies specific
29 evaluation criteria in circumstances where at least 48 acres of land within the study area have
30 been developed for solar facilities. The certificate holder asserts that there are no other solar
31 facilities within the study area that have either been constructed or that have received land
32 use approvals/building permits and therefore under MCZO 3.010.K.3.f(6)(a), no further action
33 is necessary. The Department agrees with the certificate holder's assessment and recommends
34 that Council conclude that the requirements under MCZO 3.010.K.3.f(6) would be satisfied.

35
36 Provisions (i) and (j) under MCZO 3.010.K.3 are also relevant to the proposed Carty Solar Farm
37 and provide that:

38 *i. The project owner shall sign and record in the deed records for the county a document*
39 *binding the project owner and the project owner's successors in interest, prohibiting them*
40 *from pursuing a claim for relief or cause of action alleging injury from farming or forest*
41 *practices as defined in ORS 30.930(2) and (4).*

1 *j. Nothing in this Section shall prevent the county from requiring a bond or other security*
2 *from a developer or otherwise imposing on a developer the responsibility for retiring the*
3 *photovoltaic solar power generation facility.*

4 MCZO 3.010.K.3(i) requires that the certificate holder sign and record in the deed records for
5 the county a document binding the project owner and the project owner's successors in
6 interest, prohibiting them from pursuing a claim for relief or cause of action alleging injury
7 from farming. The certificate holder has proposed a new site certificate condition that would
8 require compliance with MCZO 3.010.K.3(i). To satisfy this provision, the Department
9 recommends the Council impose Condition 6.27 as follows:

10 **Condition 6.27, as recommended:** Prior to construction, the certificate holder shall
11 record in the real property records of Morrow County a Covenant Not to Sue with
12 regard to generally accepted farming practices on adjacent farmland consistent with
13 MCZO 3.010.K.3(i).
14 [AMD1]

15
16
17 MCZO 3.010.K.3(j) allows for the county to require a bond or letter of credit for the amount
18 necessary to retire the facility during decommissioning. Council previously imposed several
19 conditions of compliance requiring the certificate holder to maintain a bond or letter of credit
20 in amount and form satisfactory to the Council to restore the facility site following cessation of
21 operation. Therefore, based upon compliance with previously imposed, the Department
22 recommends that Council conclude that the requirements under MCZO 3.010.K.3(j) would be
23 satisfied.

24
25 *MCZO Section 3.010(M) Yards. In an EFU Zone, the minimum yard setback requirements*
26 *shall be as follows:*

- 27 1. *The front yard setback from the property line shall be 20 feet for property*
28 *fronting on a local minor collector or marginal access street ROW, 30 feet from a*
29 *property line fronting on a major collector ROW, and 80 feet from an arterial*
30 *ROW unless other provisions for combining accesses are provided and approved*
31 *by the County.*
- 32 2. *Each side yard shall be a minimum of 20 feet except that on corner lots or parcels*
33 *the side yard on the street side shall be a minimum of 30 feet.*
- 34 3. *Rear yards shall be a minimum of 25 feet.*
- 35 4. *Stream Setback. All sewage disposal installations such as outhouses, septic tank*
36 *and drainfield systems shall be set back from the high-water line or mark along*
37 *all streams and lakes a minimum of 100 feet, measured at right angles to the*
38 *high-water line or mark. All structures, buildings, or similar permanent fixtures*
39 *shall be set back from the high-water line or mark along all streams or lakes a*
40 *minimum of 100 feet measured at right angles to the high-water line or mark.*

41
42 The EFU Yard Setback Requirements under MCZO Section 3.010(M)(1-3) apply to "open spaces
43 on a lot" (i.e., "yards") and establish minimum setback distances from the front, side and rear

yards to road rights-of-way and intensive agricultural use. The EFU Yard Setback Requirements under MCZO Section 3.010(M)(4) apply to sewage disposal installation and establish minimum setback distances from streams and lakes. The amendment request does not include proposed sewage installations; therefore, MCZO Section 3.010(M)(4) does not apply. However, Council previously imposed Condition 6.22(b), which mirrors the requirements of MCZO Section 3.010(M)(1-4). The certificate holder affirms that the proposed Carty Solar Farm would be designed to satisfy the setback requirements established in Condition 6.22(b). Based upon compliance with Condition 6.22(b), the Department recommends Council find that the facility, with proposed changes, would satisfy the provisions of MCZO Section 3.010(M).

MCZO Section 3.010(N) Transportation Impacts

1. *Traffic Impact Analysis (TIA). In addition to the other standards and conditions set forth in this section, a TIA will be required for all projects generating more than 400 passenger car equivalent trips per day. Heavy vehicles – trucks, recreational vehicles and buses – will be defined as 2.2 passenger car equivalents. A TIA will include: trips generated by the project, trip distribution for the project, identification of intersections for which the project adds 30 or more peak hour passenger car equivalent trips, and level of service assessment, impacts of the project, and, mitigation of the impacts. If the corridor is a State Highway, use ODOT standards. (MC-C-8-98)*

The EFU Transportation Impact Analysis (TIA) under MCZO Section 3.010(N) applies to projects that would generate more than 400 passenger equivalent trips per day. Based on the estimated peak daily vehicle and truck trip generation during construction, less than 350 passenger car equivalents per day are expected and therefore a TIA is not required to satisfy the requirements of Section 3.010(N).²⁶

Potential traffic-related impacts on surrounding roadways would be limited to Tower Road. The certificate holder proposes measures expected to reduce passenger car equivalent trips per day including carpooling, staggering worker start times, installation of temporary traffic controls, funding for overtime to provide additional traffic patrols along Tower Road, coordination of random patrols along Tower Road, and/or frequency coordination with the Morrow County Sheriff's office to inform them of periods of increased traffic to the site. Council previously imposed Condition 6.17 under the Public Services standard requiring implementation of traffic control measures during construction. As presented in Section III.M. *Public Services*, the Department recommends Council amend Condition 6.17 requiring that the certificate holder, during construction, implement a Construction Related Traffic Management Plan including the

²⁶ CGSAMD1. RFA Exhibit U. 2018-02-20. The certificate holder estimates peak construction related traffic based on 104 worker trips per day, which includes a 1.25 carpool factor, and 28 two-way truck trips per day. The Department evaluates whether a TIA is necessary based on maximum vehicle trips per day, without adjusting for carpooling and the passenger car equivalent factor of 2.2 for heavy trucks, as follows: 130 workers per day x 2 trips per day + 28 2-way truck trips per day x 2.2 passenger car equivalent = 322 trips per day.

1 certificate holder's proposed measures and recordkeeping demonstrating that passenger car
2 equivalents during construction are maintained below 400.

3
4 The Department also recommends Council impose Condition 6.26, as presented in Section III.M.
5 *Public Services* of this order, requiring that the certificate holder develop a Construction Traffic
6 Management Plan, to be reviewed and approved by the Department in consultation with
7 Morrow County prior to construction. The recommended new condition requires that the
8 certificate holder, prior to construction, re-assess peak passenger car equivalent anticipated
9 during construction activities to confirm whether a TIA is required. The recommended new
10 condition specifies that if a TIA is required, the certificate holder shall prepare and submit a TIA
11 to the Department and Morrow County Planning Department, for review and approval; and,
12 requires that the certificate holder provide documentation to the Department pursuant to OAR
13 345-027-0057 to evaluate whether the proposed change in construction-related traffic would
14 trigger a site certificate amendment.

15
16 Recommended Condition 6.26 includes a requirement that the Construction Traffic
17 Management Plan include traffic management measures or other recommendations based
18 upon pre-construction consultation with the Morrow County Public Works Department and
19 Morrow County Sheriff's Department. The Department recommends Council find that
20 compliance with existing Condition 6.17 and recommended Condition 6.26 would minimize
21 construction traffic related impacts.

22
23 Long-term operational traffic would generate approximately 2 passenger car or pickup truck
24 trips per day, with infrequent heavy vehicle trips and would not trigger the requirements of
25 Section 3.010(N). Based on estimated operational traffic, the Department recommends Council
26 conclude that the certificate holder is not required to satisfy the requirements of Section
27 3.010(N).

28
29 MCZO Section 3.070 General Industrial, MG

30
31 Facility components to be located within General Industrial (MG) zoned land include portions of
32 the proposed 34.5 kV interconnection transmission line and the proposed point of
33 interconnection at Boardman Coal Plant (Interconnection Option 3). Therefore, the applicable
34 code provisions within MG-zoned land are evaluated below.

35
36 *The General Industrial Zone is intended to provide, protect and recognize areas well*
37 *suited for medium and heavy industrial development and uses free from conflict with*
38 *commercial, residential and other incompatible land uses. This district is intended to*
39 *be applied generally only to those areas which have available excellent highway, rail*
40 *or other transportation.*

41
42 A. *Uses Permitted Outright. In an M-G Zone, the following uses and their accessory*
43 *uses are permitted outright; except as limited by subsection C of this section. A*
44 *Zoning Permit is required and projects larger than 100 acres are subject to Site*

1 *Development Review (Article 4 Supplementary Provisions Section 4.170 Site*
2 *Development Review).*

3
4 *15. Utility, transmission and communications towers less than 200 feet in*
5 *height.*

6
7 MCZO Section 3.070(A)(15) establishes that components that are a “utility, transmission and
8 communications towers less than 200 feet in height” within a general industrial (MG) zone are
9 permitted outright, but require a zoning permit and Site Development Review for project larger
10 than 100 acres.

11
12 Components within MG-zoned land include portions of the proposed 34.5 kV interconnection
13 transmission line, which would utilize approximately 70-foot tall structures and therefore would
14 be a use permitted outright. The certificate holder describes that the footprint of proposed
15 components, and even proposed and existing components (Unit 1), within MG-zoned land
16 would not exceed 100 acres and therefore would not require Site Development Review under
17 MCZO Section 4.170. A zoning permit, as presented in Table 2, *Requested Land Use Approvals*
18 *and Permits* of this order, would be required prior to construction. Council previously imposed
19 Condition 4.6 requiring the certificate holder to obtain a zoning permit, which would continue
20 to apply to the components included in the amendment request. Therefore, the Department
21 recommends Council find that the certificate holder would comply with MCZO Section 3.070(A).

22
23 MCZO Section 3.070(D) Dimension Requirements

24 *The following Dimensional requirements apply to all buildings and structures*
25 *constructed, placed or otherwise established in the MG zone.*

- 26
27 1. *Lot size and frontage: A minimum lot size has not been determined for this zone*
28 *although the lot must be of a size necessary to accommodate the proposed use,*
29 *however, it is anticipated that most, if not all uses will be sited on lots of at least*
30 *two acres. The determination of lot size will be driven by the carrying capacity of*
31 *the land given the proposed use. Minimum lot frontage shall be 300 feet on an*
32 *arterial or collector; 200 feet on a local street.*
33
34 2. *Setbacks: No specific side or rear yard setbacks are identified within this zone,*
35 *but may be dictated by provisions of the Building Code or other siting*
36 *requirements. The minimum setback between a structure and the right-of-way of*
37 *an arterial shall be 50 feet. The minimum setback of a structure from the right-of-*
38 *way of a collector shall be 30 feet, and from all lower class streets the minimum*
39 *setback shall be 20 feet. There shall be no setback requirement where a property*
40 *abuts a railroad siding or spur if the siding or spur will be utilized by the*
41 *permitted use.*
42
43 3. *Stream Setback: All sewage disposal installations such as outhouses, septic tank*
44 *and drainfield systems shall be set back from the high-water line or mark along*

1 *all streams and lakes a minimum of 100 feet, measured at right angles to the*
2 *high-water line or mark. All structures, buildings, or similar permanent fixtures*
3 *shall be set back from the high-water line or mark along all streams or lakes a*
4 *minimum of 10 feet measured at right angles to the high-water line or mark.*

- 5
6 4. *Uses adjacent to residential uses. A sight-obscuring fence shall be installed to*
7 *buffer uses permitted in the General Commercial Zone from residential uses.*
8 *Additional landscaping or buffering such as diking, screening, landscaping or an*
9 *evergreen hedge may be required as deemed necessary to preserve the values of*
10 *nearby properties or to protect the aesthetic character of the neighborhood or*
11 *vicinity.*
12

13 MCZO Section 3.070(D) establishes dimensional requirements including lot size and frontage;
14 setbacks from streams, road rights-of-way and structures; and installation of a sight-obscuring
15 fence from uses adjacent residential uses.
16

17 MCZO Section 3.070(D)(1) requires the lot used by facility components within MG-zoned land
18 to be adequate to accommodate the proposed use and include minimum lot frontage of 300
19 feet from arterial or collector roads and 200 feet from local streets. The certificate holder
20 asserts that the area within MG-zoned land to be utilized for siting of proposed facility
21 components are adequate in size for the proposed use. The certificate holder also confirms
22 that the frontage distance from the nearest road is 5,000 feet, which satisfies the minimum
23 frontage requirements. Therefore, the Department recommends Council find that the
24 proposed components within MG-zoned land would satisfy the MCZO Section 3.070(D)(1)
25 provision.
26

27 MCZO Section 3.070(D)(2) and (3) require proposed uses within MG-zoned land to comply
28 with setback distances from proposed structures to arterial road rights-of-way; and, to
29 streams and lakes when the proposed use includes a sewage disposal installation. The
30 certificate holder describes that, in MG-zoned land, the nearest road is located a distance of
31 2.27 proposed structures and is a private segment of Tower Road, of which the provisions do
32 not apply. The certificate holder is not proposing sewage disposal installations. Therefore, the
33 Department recommends Council find that the proposed components within MG-zoned land
34 would satisfy the provisions of MCZO Section 3.070(D)(2), and find that MCZO Section
35 3.070(D)(3) would not apply.
36

37 MCZO Section 3.070(D)(4) requires installation of a sight-obscuring fence when a proposed
38 use would be adjacent to residences. The certificate holder affirms that there are no
39 residential uses within proximity of the site. Therefore, the Department recommends Council
40 find MCZO Section 3.070(D)(4) does not apply.
41

42 MCZO Section 3.070(E) Transportation Impacts

- 43 1. *Traffic Impact Analysis (TIA). In addition to the other standards and conditions*
44 *set forth in this section, a TIA will be required for all projects generating more*

1 *than 400 passenger car equivalent trips per day. Heavy vehicles B trucks,*
2 *recreational vehicles and buses B will be defined as 2.2 passenger car*
3 *equivalents. A TIA will include: trips generated by the project, trip distribution for*
4 *the project, identification of intersections for which the project adds 30 or more*
5 *peak hour passenger car equivalent trips, and level of service assessment,*
6 *impacts of the project, and, mitigation of the impacts. If the corridor is a State*
7 *Highway, use ODOT standards. (MC-C-8-98)*
8

9 The MG Transportation Impact Analysis (TIA) under MCZO Section 3.070(E) applies to projects
10 that would generate more than 400 passenger equivalent trips per day, mirroring the
11 requirements of MCZO Section 3.010(N). Based on the estimated peak daily vehicle and truck
12 trip generation during construction, less than 350 passenger car equivalents per day are
13 expected and therefore a TIA is not required to satisfy the requirements of Section 3.070(E).²⁷
14

15 However, as described above for the evaluation of MCZO Section 3.010(N), potential traffic-
16 related impacts on surrounding roadways would be limited to Tower Road. The certificate
17 holder proposes measures expected to reduce passenger car equivalent trips per day including
18 carpooling, staggering worker start times, installation of temporary traffic controls, funding for
19 overtime to provide additional traffic patrols along Tower road, coordination of random patrols
20 along Tower Road, and/or frequency coordination with the Morrow County Sheriff's office to
21 inform them of periods of increased traffic to the site. Council previously imposed Condition
22 6.17 under the Public Services standard requiring implementation of traffic control measures
23 during construction. As presented in Section III.M. *Public Services*, the Department
24 recommends Council amend Condition 6.17 requiring that the certificate holder, during
25 construction, implement a Construction Related Traffic Management Plan including the
26 certificate holder's proposed measures and recordkeeping demonstrating that passenger car
27 equivalents during construction are maintained below 400.
28

29 The Department also recommends Council impose Condition 6.26, as presented in Section III.M.
30 *Public Services* of this order, requiring that the certificate holder develop a Construction Traffic
31 Management Plan, to be reviewed and approved by the Department prior to construction. The
32 recommended new condition requires that the certificate holder, prior to construction, re-
33 assess peak passenger car equivalent anticipated during construction activities to confirm
34 whether a TIA is required. The recommended new condition specifies that if a TIA is required,
35 the certificate holder shall prepare and submit a TIA to the Department and Morrow County
36 Planning Department, for review and approval; and, requires that the certificate holder provide

²⁷ CGSAMD1. RFA Exhibit U. 2018-02-20. The certificate holder estimates peak construction related traffic based on 104 worker trips per day, which includes a 1.25 carpool factor, and 28 two-way truck trips per day. The Department evaluates whether a TIA is necessary based on maximum vehicle trips per day, without adjusting for carpooling and the passenger car equivalent factor of 2.2 for heavy trucks, as follows: 130 workers per day x 2 trips per day + 28 2-way truck trips per day x 2.2 passenger car equivalent = 322 trips per day.

1 documentation to the Department pursuant to OAR 345-027-0057 to evaluate whether the
2 proposed change in construction-related traffic would trigger a site certificate amendment.

3
4 Recommended Condition 6.26 includes a requirement that the Construction Traffic
5 Management Plan include traffic management measures or other recommendations based
6 upon pre-construction consultation with the Morrow County Public Works Department and
7 Morrow County Sheriff's Department. The Department recommends Council find that
8 compliance with existing Condition 6.17 and recommended Condition 6.26 would minimize
9 construction traffic related impacts.

10
11 Long-term operational traffic would generate approximately 2 passenger car or pickup truck
12 trips per day, with infrequent heavy vehicle trips and would not trigger the requirements of
13 Section 3.010(N). Based on estimated operational traffic, the Department recommends Council
14 conclude that the certificate holder is not required to satisfy the requirements of Section
15 3.070(E).

16
17 MCZO Section 4.165 Site Plan Review

18 *Site Plan Review is a non-discretionary or "ministerial" review conducted without a*
19 *public hearing by the County Planning Director or designee. Site Plan Review is for*
20 *less complex developments and land uses that do not require site development or*
21 *conditional use review and approval through a public hearing.*

22
23 A. *Purpose. The purpose of Site Plan Review (ministerial review) is based on clear*
24 *and objective standards and ensures compliance with the basic development*
25 *standards of the land use district, such as building setbacks, lot coverage,*
26 *maximum building height, and similar provisions. Site Plan review also addresses*
27 *conformity to floodplain regulations, consistency with the Transportation System*
28 *Plan, and other standards identified below.*

29
30 C. *Applicability. Site Plan Review shall be required for all land use actions requiring*
31 *a Zoning Permit as defined in Section 1.050 of this Ordinance. The approval shall*
32 *lapse, and a new application shall be required, if a building permit has not been*
33 *issued within one year of Site Review approval, or if development of the site is in*
34 *violation of the approved plan or other applicable codes.*

35
36 The Site Plan Review is the county's ministerial review conducted prior to issuance of a zoning
37 permit, defined under MCZO Section 1.050 as "an authorization issued prior to a building
38 permit, or commencement of a use subject to administrative review, stating that the proposed
39 use is in accordance with the requirements of the corresponding land use zone." As required
40 by Condition 4.6, previously imposed by Council, the certificate holder is required to secure

1 zoning, building and Conditional Use permits from Morrow County prior to construction of the
2 energy facility.²⁸

3
4 *D. Review Criteria.*

5
6 *1. The lot area shall be adequate to meet the needs of the establishment.*

7
8 The proposed amended site boundary encompasses approximately 1,581 acres within Morrow
9 County, which the certificate holder asserts would provide adequate space to meet the needs
10 of the proposed facility components. Based on the certificate holder's representations, the
11 Department recommends Council find that the certificate holder has secured a site adequate to
12 meet the needs of the proposed use and would satisfy MCZO Section 4.165(D)(1).
13

14 *2. The proposed land use is permitted by the underlying land use district.*

15
16 The certificate holder asserts that the land uses of the proposed facility components would be
17 permissible within Morrow County. Based on the analysis provided above related to MCZO
18 Section 3.010(D)(10) and 3.010(K)(3) and recommended findings in this section, the
19 Department recommends Councils find that the certificate holder has demonstrated that the
20 proposed facility components would be permissible within Morrow County.
21

22 *3. The land use, building/yard setback, lot area, lot dimension, density, lot*
23 *coverage, building height and other applicable standards of the underlying*
24 *land use district and any sub-district(s) are met.*

25
26 The certificate holder proposes to design and construct the proposed Carty Solar Farm in
27 accordance with applicable substantive criteria identified by Morrow County, including the
28 yard setback requirements at Section 3.010(M). Based on the certificate holder's
29 representations, the Department recommends Council find that the certificate holder could
30 design and construct the proposed Carty Solar Farm in accordance with applicable
31 substantive criteria identified by Morrow County.
32

33 *4. Development in flood plains shall comply with Section 3.100 Flood Hazard*
34 *Overlay Zone of the Ordinance.*

35
36 The certificate holder asserts that the area within the proposed amended site boundary
37 would not be located in a flood hazard overlay zone. Therefore, the Department
38 recommends Council find that the review criteria under MCZO Section 4.165(D)(4) and flood
39 hazard overlay zone requirements per MCZO Section 3.100 would not apply.
40

²⁸ Pursuant to ORS 469.401(3), the county must issue a zoning permit upon submittal of the proper applications and fees, but without hearings or other proceedings and subject only to conditions set forth in the site certificate.

- 1 5. *Development in hazard areas identified in the Morrow County Comprehensive*
2 *Plan shall safely accommodate and not exacerbate the hazard and shall not*
3 *create new hazards.*

4
5 The Natural Hazards Element of the Morrow County Comprehensive Plan, and the Morrow
6 County Natural Hazard Mitigation Plan updated in 2016, identify eight natural hazards of
7 concern within some or all of Morrow County: drought; earthquake; flood; landslide; volcano;
8 wildfire; windstorm; and winter storm. The Natural Hazard Element indicates that only some
9 natural hazards, “such as flooding and landslide hazard areas,” can be mitigated through
10 development standards, whereas “for other, more widespread or random hazards such as
11 drought, wildfire, winter storm, or windstorms, effective mitigation must come in the form of
12 public awareness, preparedness and participation.”

13
14 As indicated in response to MCZO Section 4.165(D)(4), the area within the proposed amended
15 site boundary would not be located within a flood hazard area. Other potential geological
16 hazards are evaluation in Section III.C. *Structural Standard* and III.D. *Soil Protection* of this order.
17 In addition, previously imposed conditions would ensure that the certificate holder designs the
18 proposed Carty Solar Farm to minimize risks from potential geological hazards. Condition 6.8
19 requires the certificate holder to “design, engineer and construct the facility to avoid dangers to
20 human safety presented by non-seismic hazards,” including “settlement, landslides, flooding
21 and erosion.” Condition 6.7 requires the certificate holder to “design, engineer and construct
22 the facility to avoid danger to human safety presented by seismic hazards affecting the area
23 that are expected to result from all maximum probable seismic events.” Other conditions (6.10
24 and 6.11) require notification to the Oregon Department of Energy, Department of Geology and
25 Mineral Industries and the State Building Codes Division if previously unknown conditions are
26 identified at the energy facility site.

- 27
28 6. *Off-street parking and loading-unloading facilities shall be provided as*
29 *required in Section 4.040 and 4.050 of the Morrow County Zoning Ordinance.*
30 *Safe and convenient pedestrian access to off-street parking areas also shall*
31 *be provided as applicable.*

32
33 Any permanent employees associated with the Carty Solar Farm would be based at Unit
34 1 of the Carty Generating Station, which is developed with parking facilities.

- 35
36 7. *County transportation facilities shall be located, designed and constructed in*
37 *accordance with the design and access standards in the Morrow County*
38 *Transportation System Plan.*

39
40 The proposed facility components would not involve or require the development of new
41 county transportation facilities or new access to existing country transportation
42 facilities.

1 8. *Site planning, including the siting of structures, roadways and utility*
2 *easements, shall provide, wherever practicable, for the protection of trees*
3 *eight inch caliper or greater measured four feet from ground level, with the*
4 *exception of noxious or invasive species, such as Russian olive trees.*

5
6 Development and operation of the proposed 34.5 kV transmission line and Grassland
7 Switchyard buildout are not expected to require the removal of any trees 8 inches or
8 more in diameter. There are scattered juniper trees over 8 inches in diameter on the
9 Carty Solar Farm generation facility, however, that would have to be removed. As part
10 of wildlife habitat mitigation discussed in Exhibit P, PGE will consult with the Oregon
11 Department of Fish and Wildlife (ODFW) regarding mitigation for trees removed.

12
13 9. *Development shall comply with Section 3.200 Significant Resources Overlay*
14 *Zone or 3.300 Historic Buildings and Sites protecting inventoried significant*
15 *natural and historic resources.*

16
17 There are no inventoried historic buildings or sites on the site. The Significant Resources
18 Overlay Zone applies to certain inventoried resources: aggregate and mineral sites; sensitive
19 bird nesting sites; riparian vegetation/wetlands; big game range; and wildlife habitat zone.
20 There are no inventoried "Goal 5 significant" aggregate and mineral sites on Site, as shown on
21 the Morrow County Comprehensive Plan Map of Aggregate and Mineral Resources, adopted
22 September 4, 2013.

23
24 "Sensitive bird nesting sites" are limited to "bald and golden eagle nest sites and communal
25 roost sites," pursuant to MCZO 3.200.C.2.a. The closest identified nest is a bald eagle nest 0.57
26 mile west of the Carty Solar Farm generation facility. There are no nests on the site inventoried
27 on Morrow County's 1986 Significant Resource Overlay Map.

28
29 Requirements for protection of riparian vegetation and wetlands in MCZO 3.200.C.3 limit road
30 construction, in riparian zones, require setbacks of dwellings and non-water-dependent
31 structures from the high water level of a stream or water body, require that any permanent
32 vegetation removal must retain 75 percent of "all layers or stratas of vegetation." This RFA does
33 not propose any road construction in riparian areas, dwellings or structures within the required
34 100-foot minimum setback from any stream or water body, or permanent removal of any
35 riparian vegetation.

36
37 The site also is not within "big game range." Although MCZO 3.200.C.5 also lists "wildlife habitat
38 zone," there are no use or development restrictions identified. Exhibits P and Q specifically
39 address impacts to and mitigation for fish and wildlife habitat and threatened and endangered
40 species in accordance with the Council's standards.

41
42 10. *The applicant shall determine if compliance is required with Oregon Water*
43 *Resources Department water quantity and/or Oregon Department of*
44 *Environmental Quality water quality designations.*

1 Water use and wastewater disposal are addressed in Exhibit O and Exhibit V,
2 respectively.

3
4 *11. The applicant shall determine if previous Code Enforcement violations have*
5 *been cleared as applicable.*
6

7 The certificate holder is not aware of any prior Code Enforcement violations.
8

9 *12. The applicant shall determine the method of disposal for solid waste, with*
10 *staff providing information to the applicant about recycling opportunities.*
11

12 The certificate holder does not anticipate needing new access to county roads. If access
13 is needed, Condition 4.5 of the Site Certificate requires that the certificate holder obtain
14 the permit.
15

16 Based on the certificate holder's representations and analysis presented above for MCZO
17 Section 4.165, the Department recommends Council find that the proposed Carty Solar Farm
18 would be consistent with MCZO Section 4.165 Site Plan Review and requirements and
19 therefore would satisfy the MCZO Section 1.050 provision.
20

21 MCZO Section 6.015 Requirements Under a State Energy Facility Site Certificate
22

23 *If a holder of a Site Certificate issued by the Oregon Energy Facility Siting Council*
24 *requests a conditional use permit for an energy facility as outlined under ORS*
25 *469.401(3) and pays the requisite fee, the Planning Director shall issue such*
26 *conditional use permit. The conditional use permit shall incorporate only the*
27 *standards and conditions in Morrow County's land use and other ordinances as*
28 *contained in the site certificate. Issuance of the Conditional Use Permit shall be done*
29 *promptly, not taking more than four weeks once it has been determined that a valid*
30 *Site Certificate has been issued, the applicant has submitted a complete application*
31 *and the fee has been received.*
32

33 Council previously imposed Condition 4.6, requiring that the certificate holder to obtain all
34 local permits, including a conditional use permit for the portion of the facility on EFU land.
35 That condition would also apply to the proposed Carty Solar Farm. Based on the certificate
36 holder's analysis, the Department recommends Council find that the proposed Carty Solar
37 Farm would be consistent with MCZO Section 6.015.
38

39 MCZO Section 6.020 General Criteria
40

41 *In judging whether or not a conditional use proposal shall be approved or denied, the*
42 *Commission shall weigh the proposal's appropriateness and desirability, or the public*
43 *convenience or necessity to be served against any adverse conditions that would*
result from authorizing the particular development at the location proposed and, to

1 *approve such use, shall find that the following criteria are either met or can be met*
2 *by observance of conditions.*

3 *A. The proposal will be consistent with the Comprehensive Plan and the objectives*
4 *of the Zoning Ordinance and other applicable policies and regulations of the*
5 *County.*

6 *B. If located within the Urban Growth Boundary of a city, that said city has had an*
7 *opportunity to review and comment on the subject proposal.*

8 *C. The proposal will not exceed carrying capacities of natural resources or public*
9 *facilities.*

10
11 The Carty Solar Farm generation facility, as a “photovoltaic solar power generation facility,” is a
12 listed conditional use in the EFU zone pursuant to MCZO 3.010.C.24 and therefore is subject to
13 these General Criteria. The Grassland Switchyard buildout and associated transmission lines are
14 listed as permitted uses in the EFU zone under MCZO 3.010.B.24 (“utility facilities necessary for
15 public service, including associated transmission lines”) and are not subject to the General
16 Criteria of MCZO 6.020.

17
18 The Carty Solar Farm’s compliance with applicable zoning regulations and the Morrow County
19 Comprehensive Plan is addressed herein. The design, construction and operation of the Carty
20 Solar Farm would comply with the land use conditions of the Site Certificate, including
21 Condition 4.6 (requirement to obtain all local permits), Condition 6.22 (compliance with
22 setbacks), and Condition 6.23 (limitations on signage).

23
24 *B. If located within the Urban Growth Boundary of a city, that said city has had*
25 *an opportunity to review and comment on the subject proposal.*

26
27 The Carty Solar Farm generation facility would not be located within the Urban Growth
28 Boundary of a city.

29
30 *C. The proposal will not exceed carrying capacities of natural resources or public*
31 *facilities.*

32
33 Exhibits I, J, P, Q, S, and U of this RFA demonstrate that the carrying capacities of natural
34 resources or public facilities would not be exceeded.

35
36 Based on the certificate holder’s analysis, the Department recommends Council find that the
37 proposed Carty Solar Farm would be consistent with MCZO Section 6.020.

1 MCZO Section 6.025 Resource Zone Standards for Approval

2 A. *In the Exclusive Farm Use zone a conditional use may be approved only when the*
3 *County finds that the use will not:*

- 4 1. *Force a significant change in accepted farm or forest practices on surrounding*
5 *lands devoted to farm or forest use; or*
6 2. *Significantly increase the cost of accepted farm or forest practices on*
7 *surrounding lands devoted to farm or forest use.*
8

9 The Carty Solar Farm generation facility site is not adjacent to any lands in forest use or any
10 lands cultivated for farm use. The closest cultivated agricultural land is approximately 1.7 miles
11 west of the western edge of the Carty Solar Farm generation facility site and is separated from
12 the Carty Solar Farm generation facility site by uncultivated land and the Carty Reservoir. That
13 farming is conducted by Threemile Canyon Farms, which has approximately 35,000 acres under
14 cultivation, all using center pivot irrigation. Construction and maintenance of solar panels and
15 associated equipment at the Carty Solar Farm generation facility would not alter or reduce the
16 area under cultivation by Threemile Canyon Farms, would not necessitate relocating any access
17 routes or farm infrastructure, and would not result in changes to the practices for planting,
18 irrigating, fertilizing, or harvesting the circles.
19

20 Based on the certificate holder's analysis, the Department recommends Council find that the
21 proposed Carty Solar Farm would be consistent with MCZO Section 6.025.
22

23 MCZO Section 6.030 General Conditions

24 *In addition to the standards and conditions set forth in a specific zone, this article, and other*
25 *applicable regulations; in permitting a new conditional use or the alteration of an existing*
26 *conditional use, the Commission may impose conditions which it finds necessary to avoid a*
27 *detrimental impact and to otherwise protect the best interests of the surrounding area or*
28 *the County as a whole. These conditions may include the following:*
29

30 A. *Limiting the manner in which the use is conducted including restricting the time an*
31 *activity may take place and restraints to minimize such environmental effects as noise,*
32 *vibration, air pollution, glare and odor.*
33

34 Noise is addressed in Exhibit X. Noise associated with the Carty Solar Farm would be minimal.
35 The Carty Solar Farm generation facility would not include equipment that would create
36 noticeable vibration, emit air pollution, or create odor. With respect to glare, the Federal
37 Aviation Administration has issued a determination of no hazard, included in this RFA as
38 Appendix E-2 in Exhibit E.
39

40 B. *Establishing a special yard or other open space or lot area or dimension.*
41

42 This RFA does not propose the creation or reconfiguration of any lots. Condition 6.22 of the Site
43 Certificate requires compliance with the yard and setback requirements of the MG zone and
44 the EFU zone.

1
2 *C. Limiting the height, size or location of a building or other structure.*
3

4 This RFA does not propose any buildings. Although the Carty Solar Farm generation facility
5 would occupy approximately 315 acres, as described in Exhibit B, Section B.3, the maximum
6 height of any elements of the Carty Solar Farm generation facility would generally not exceed
7 10.5 feet. The 34.5-kV transmission line would be mounted on wooden poles approximately 70
8 feet high, depending on location and span length.
9

10 *D. Designating the size, number, location and nature of vehicle access points.*

- 11 1. *Where access to a county road is needed, a permit from Morrow County Public*
12 *Works department is required. Where access to a state highway is needed, a permit*
13 *from ODOT is required.*
14

15 No new vehicle access to a county road or a state highway is proposed in this RFA or needed to
16 construct, operate, and retire the facilities proposed.
17

- 18 2. *In addition to the other standards and conditions set forth in this section, a Traffic*
19 *Impact Analysis (TIA) will be required for all projects generating more than 400*
20 *passenger car equivalent trips per day. A TIA will include: trips generated by the*
21 *project, trip distribution for the project, identification of intersections for which the*
22 *project adds 30 or more peak hour passenger car equivalent trips, and level of service*
23 *assessment, impacts of the project, and mitigation of the impacts. If the corridor is a*
24 *State Highway, use ODOT standards. (MC-C-8-98)*
25

26 Exhibit U includes estimates of potential traffic associated with the Carty Solar Farm. The “400
27 passenger car equivalent trips per day” might be reached during construction of the Carty Solar
28 Farm, but not during operation. PGE would consult with Morrow County prior to the start of
29 construction, when staging and workforce issues are better known, and will prepare a Traffic
30 Impact Analysis if the 400 trips per day threshold would be exceeded. In addition, Condition
31 6.17 requires the certificate holder to implement specified measures to reduce traffic impacts
32 during construction.
33

34 *E. Increasing the amount of street dedication, roadway width or improvements within the*
35 *street right-of-way.*

- 36 1. *It is the responsibility of the land owner to provide appropriate access for emergency*
37 *vehicles at the time of development. (MC-C-8-98)*
38

39 Tower Road provides access to the site. No new access or street dedication is necessary.
40

41 *F. Designating the size, location, screening, drainage, surfacing or other improvement of a*
42 *parking area or loading area.*
43

44 No new permanent parking or loading areas are proposed in this RFA.

1
2 *G. Limiting or otherwise designating the number, size, location, height, and lighting of*
3 *signs.*
4

5 Condition 6.23 of the Site Certificate limits signage associated with the facility.
6

7 *H. Limiting the location and intensity of outdoor lighting and requiring its shielding.*
8

9 Condition 6.14 of the Site Certificate limits exterior nighttime lighting at the facility.
10

11 *I. Requiring diking, screening, landscaping or another facility to protect adjacent or nearby*
12 *property and designating standards for its installation and maintenance.*
13

14 The facilities proposed in this RFA are not in close proximity to uses requiring protection by
15 diking, screening, or landscaping.
16

17 *J. Designating the size, height, location and materials for a fence.*
18

19 Condition 7.2 of the Site Certificate requires the certificate holder to enclose the Grassland
20 Switchyard “with appropriate fencing and locked gates.” PGE would enclose the expanded
21 Grassland Switchyard and the Carty Solar Farm generation facility site with chain-link security
22 fence; the exact dimensions will be determined during facility design, but it is expected to be
23 approximately 8 feet in height, with an additional foot of barbed wire.
24

25 *K. Protecting and preserving existing trees, vegetation, water resources, wildlife habitat or*
26 *other significant natural resources.*
27

28 Protection of these resources in accordance with Council standards is addressed in Exhibits I, J,
29 P, Q, and V. In addition, the Site Certificate includes extensive conditions for protection of
30 natural resources, including 38 conditions in Section 10 of the Site Certificate.
31

32 *L. Other conditions necessary to permit the development of the County in conformity with*
33 *the intent and purpose of this Ordinance and the policies of the Comprehensive Plan.*
34

35 Additional and modified conditions are proposed in PGE’s markup of the Site Certificate,
36 submitted with this RFA. Based on the certificate holder’s analysis, the Department
37 recommends Council find that the proposed Carty Solar Farm would be consistent with MCZO
38 Section 6.030.
39

1
2 MCZO Section 6.040 Permit and Improvements Assurance

3 *The Commission may require an applicant to furnish the County with a performance bond or*
4 *such other form of assurance that the Commission deems necessary to guarantee*
5 *development in accordance with the standards established and the conditions attached in*
6 *granting a conditional use permit.*

7
8 This provision does not establish approval standards. Financial assurance for facilities
9 constructed and operated as proposed in this RFA will be in accordance with the Council's
10 Retirement and Financial Assurance standard, OAR 345-022-0050.

11
12 MCZO Section 6.050 Standards Governing Conditional Uses

13 *A conditional use shall comply with the standards of the zone in which it is located and with*
14 *the standards set forth in this subsection.*

15
16 This section of the MCZO provides additional approval standards for certain conditional uses.
17 Although MCZO 6.050.O sets forth standards for "radio, television tower, utility station or
18 substation," those standards do not apply to the Grassland Switchyard buildout. The Grassland
19 Switchyard buildout is a permitted use as a "utility facility necessary for public service" under
20 MCZO 3.010.B.24 and is not subject to conditional use standards.

21
22 *F. Designating the size, location, screening, drainage, surfacing or other improvement of a*
23 *parking area or loading area.*

24
25 No new permanent parking or loading areas are proposed in this RFA.

26
27 *G. Limiting or otherwise designating the number, size, location, height, and lighting of*
28 *signs.*

29
30 Condition 6.23 of the Site Certificate limits signage associated with the facility.

31
32 *H. Limiting the location and intensity of outdoor lighting and requiring its shielding.*

33
34 Condition 6.14 of the Site Certificate limits exterior nighttime lighting at the facility.

35
36 *I. Requiring diking, screening, landscaping or another facility to protect adjacent or nearby*
37 *property and designating standards for its installation and maintenance.*

38
39 The facilities proposed in this RFA are not in close proximity to uses requiring protection by
40 diking, screening, or landscaping.

41
42 *J. Designating the size, height, location and materials for a fence.*

1 Condition 7.2 of the Site Certificate requires the certificate holder to enclose the Grassland
2 Switchyard "with appropriate fencing and locked gates." PGE would enclose the expanded
3 Grassland Switchyard and the Carty Solar Farm generation facility site with chain-link security
4 fence; the exact dimensions will be determined during facility design, but it is expected to be
5 approximately 8 feet in height, with an additional foot of barbed wire.

6
7 *K. Protecting and preserving existing trees, vegetation, water resources, wildlife habitat or*
8 *other significant natural resources.*
9

10 Protection of these resources in accordance with Council standards is addressed in Exhibits I, J,
11 P, Q, and V. In addition, the Site Certificate includes extensive conditions for protection of
12 natural resources, including 38 conditions in Section 10 of the Site Certificate.

13
14 *L. Other conditions necessary to permit the development of the County in conformity with*
15 *the intent and purpose of this Ordinance and the policies of the Comprehensive Plan.*
16

17 Recommended additional and modified conditions are included in the draft amended site
18 certificate included as Attachment A to this proposed order. Based on the certificate holder's
19 analysis, the Department recommends Council find that the proposed Carty Solar Farm would
20 be consistent with MCZO Section 6.050.

21
22 III.E.4. Goal 3 Exception
23

24 The proposed Carty Solar Farm would preclude more than 12 acres of high value farmland and
25 more than 20 acres of arable land from use as a commercial agricultural enterprise. Therefore,
26 the proposed Carty Solar Farm would not comply with MCZO 3.010(K)(3)(f) and LCDC's OAR
27 660-033-0130(38)(f) and (38)(g) unless a goal exception is taken. Pursuant to ORS
28 469.504(1)(b)(B), non-compliance with a statewide planning goal requires a determination by
29 Council that an exception to Goal 3 is warranted under ORS 469.504(2) and the implementing
30 EFSC rule at OAR 345-022-0030(4).

31
32 Goal 2, under LCDC's OAR 660-004-0020(2)(Part II), permits an "exception" to the requirement
33 of a goal for "specific properties or situations." The text of Goal 2, part II, pertaining to
34 exceptions is codified in ORS 197.732; however, for EFSC-jurisdictional facilities, ORS 469.504(2)
35 establishes the requirements that must be met for the Council to take an exception to a land
36 use planning goal, not the LCDC rule or statute. The requirements of ORS 469.504(2) are
37 implemented through the Council's Land Use standard at OAR 345-022-0030(4), which states:

38
39 *OAR 345-022-0030:*
40

41 *(4) The Council may find goal compliance for a proposed facility that does not otherwise*
42 *comply with one or more statewide planning goals by taking an exception to the*
43 *applicable goal. **Notwithstanding the requirements of ORS 197.732 (emphasis added),***
44 *the statewide planning goal pertaining to the exception process or any rules of the Land*

1 *Conservation and Development Commission pertaining to the exception process goal,*
2 *the Council may take an exception to a goal if the Council finds:*

- 3
4 (a) *The land subject to the exception is physically developed to the extent that*
5 *the land is no longer available for uses allowed by the applicable goal;*
6 (b) *The land subject to the exception is irrevocably committed as described by the*
7 *rules of the Land Conservation and Development Commission to uses not*
8 *allowed by the applicable goal because existing adjacent uses and other*
9 *relevant factors make uses allowed by the applicable goal impracticable; or*
10 (c) *The following standards are met:*
11 (A) *Reasons justify why the state policy embodied in the applicable goal*
12 *should not apply;*
13 (B) *The significant environmental, economic, social and energy consequences*
14 *anticipated as a result of the proposed facility have been identified and*
15 *adverse impacts will be mitigated in accordance with rules of the Council*
16 *applicable to the siting of the proposed facility; and*
17 (C) *The proposed facility is compatible with other adjacent uses or will be*
18 *made compatible through measures designed to reduce adverse impacts.*

19
20 The provisions of OAR 345-022-0030(4)(a) and (b) are not applicable to the proposed Carty
21 Solar Farm. The certificate holder submitted an assessment as to why a goal exception under
22 OAR 345-022-0030(4)(c) is appropriate; the Department agrees that a goal exception under
23 OAR 345-022-0030(4)(c) is appropriate and provides an analysis of the certificate holder's OAR
24 345-022-0030(4)(c) evaluation below.

25
26 Reasons Supporting an Exception

27
28 Under OAR 345-022-0030(4)(c)(A) (and ORS 469.504(2)(c)(A)), in order for the Council to
29 determine whether to grant an exception to a statewide planning goal, the certificate holder
30 must provide reasons justifying why the state policy embodied in the applicable goal should not
31 apply. The state policy embodied in Goal 3 is the preservation and maintenance of agricultural
32 land for farm use. The certificate holder's justification, as presented below, is based on the
33 standards pursuant to LCDC's OAR 660-004-0022, which establish the types of reasons that may
34 be used to justify certain types of uses not allowed on resource lands. OAR 660-004-0022(3)(a)
35 through (c) identifies a list of appropriate reasons and facts that may be considered. The

1 certificate holder relies upon the criteria under OAR 660-004-0022(3)(c) to frame its reasons
2 justification:²⁹

3
4 *OAR 660-004-0022(3) Rural Industrial Development: For the siting of industrial development*
5 *on resource land outside an urban growth boundary, appropriate reasons and facts may*
6 *include, but are not limited to, the following:*

7 ***

8 c. *The use would have a significant comparative advantage due to its location (e.g.,*
9 *near existing industrial activity, an energy facility, or products available from other*
10 *rural activities), which would benefit the county economy and cause only minimal*
11 *loss of productive resource lands. Reasons for such a decision should include a*
12 *discussion of the lost resource productivity and values in relation to the county's gain*
13 *from the industrial use, and the specific transportation and resource advantages that*
14 *support the decision.*

15
16 The Department notes that Division 4 of OAR 660 provides an interpretation of the Goal 2
17 exception process. However, as noted above, because OAR 345-022-0030(4) (and ORS
18 469.504(2)(c)) applies notwithstanding ORS 197.732 (the statewide planning goal pertaining to
19 the exception process) or any of the LCDC goal exception process rules, OAR 660-004-0022 is
20 not directly applicable to the evaluation of the certificate holder's reasons justification.

21
22 In other words, LCDC's exceptions process rules do not specifically apply under the Council's
23 Land Use standard and associated statutory authority. The Council has not established in rule,
24 and the legislature has not established in statute, specific criteria used by the Council in
25 deciding upon a goal exception under OAR 345-022-0030(4)(c). The certificate holder's
26 assessment utilizes the criteria established by LCDC at OAR 660-004-0022(3)(c). However, as
27 noted, the Department is not limited in making its recommendations to Council based on a
28 strict evaluation of compliance with LCDC's exceptions process rules, and can base the
29 assessment on a number factors and reasons that justify the Goal 3 exception under the
30 Council's Land Use standard and OAR 345-022-0030(4)(c).

31
32 The certificate holder's reasons justification describes that the use of EFU-zoned land for the
33 proposed Carty Solar Farm would have a significant comparative advantage for several reasons
34 including the minimal loss to productive agricultural operations, presence of existing energy
35 facility infrastructure, topography and natural resources, benefits to the local economy, and

²⁹ The Department takes no position on whether the proposed photovoltaic solar power generation facility qualifies as a "rural industrial development" for the purposes of a Goal 3 exception under LCDC's exceptions process. In *Department of Land Conservation and Development v. Or Solar LLC* (2018), the Oregon Court of Appeals reversed the portion of the LUBA order in *1000 Friends of Oregon v. Jackson County* (2017) that concluded that the facility proposed by Or Solar LLC was rural industrial development under OAR 660-004-0022(3)(c). [The Court of Appeals decision has been appealed to the Oregon Supreme Court.]

1 proximity to existing transportation resources. Each of these advantages are further evaluated
2 below.

3
4 *Minimal Loss to Productive Agriculture*

5
6 The certificate holder's reasons justification describes that the use of EFU-zoned land for the
7 proposed Carty Solar Farm site is advantageous due to the minimal loss to productive resource
8 lands from the proposed use. While the proposed site contains high value farmland (based on
9 the ORS 195.300(10)(f) definition) and arable land, the site is not currently cultivated nor is
10 there a known history of cultivation. The site does not contain irrigation infrastructure nor
11 maintain irrigation water rights, which are typically necessary to cultivate land in Morrow
12 County's climate.

13 PGE asserts that transferring water rights to the site would require drying up land that is more
14 suitable for farming than the land within the site. Irrigation could not occur unless the
15 infrastructure necessary to bring irrigation water to the site were extended from existing
16 irrigated lands. Given the distance of the closest irrigated lands to the site (1.7 miles), and the
17 existence of the Carty Reservoir ~~(which does not contain water usable for agriculture irrigation)~~
18 between the proposed site and these irrigated lands, PGE asserts that irrigation infrastructure
19 could not be readily and efficiently extended to the site.

20 Furthermore, the site is isolated from existing cultivated lands by the South Farm Conservation
21 Area protected by a conservation easement pursuant to the MSCCAA, and the Carty Reservoir.
22 Farm equipment would have to traverse either the conservation area or the Boardman Coal
23 Plant site in order to reach the proposed site for the purposes of planting, harvesting and
24 tending to any crops. The distance of the site from land currently under cultivation to the west
25 and north (and the presence of Carty Reservoir in between) not only limits the potential to
26 cultivate the Carty Solar Farm site, but also eliminates potential impacts to farming practices on
27 those cultivated lands. PGE states that the Carty Solar Farm would not affect infrastructure,
28 including road access, to or within Threemile Canyon Farms and would not affect the ability to
29 plant, irrigate, fertilize or harvest the center pivot circles in question. Finally, the Boardman Ash
30 Disposal Area, located just north of the site, and the presence of an area of dune land running
31 approximately east to west along the northern portion of the site, physically constrain the
32 potential dimensions of any potential future center pivot circles.³⁰

33 Tower Road, a well-maintained paved county road, would be used to access the site, and is
34 primarily used for industrial/agricultural traffic. Traffic on this road associated with the
35 potential two additional permanent staff for operation of the proposed Carty Solar Farm would
36 create a negligible impact to other users of Tower Road.³¹

³⁰ *Id.*

³¹ CGSAMD1. 2018-02-20; 2018-09-23. Request for Amendment, Exhibit K, Section K.5.2 (evaluation of compliance with MCZO 3.010.K.3) and RAI responses.

1 As explained in more detail under the evaluation of compliance with MCZO 3.010(K)(3), the
2 potential for construction-related impacts to soils (i.e. erosion, unnecessary compaction) and
3 the unabated introduction or spread of noxious weeds would be minimized through
4 implementation of PGE's Erosion and Sediment Control Plan and Revegetation and Noxious
5 Weed Control Plan.

6 7 *Presence of Existing Energy Facility Infrastructure* 8

9 The certificate holder's reasons justification describes that the use of EFU-zoned land for the
10 proposed Carty Solar Farm site is advantageous due to the presence of existing energy facility
11 infrastructure. Existing infrastructure, owned and operated by the certificate holder, to be
12 utilized by the Carty Solar Farm includes three options for points of interconnect, grid
13 integration, and grid transmission. Specifically, this infrastructure includes the existing Carty
14 Generation Station components including Unit 1 and Grassland Switchyard, Boardman Coal
15 Plant, and the 500 kV transmission line extending from Grassland Switchyard to BPA's Slatt
16 Substation. In addition, because the Carty Generating Station and the Boardman Coal Plant are
17 already staffed on a 24-hour basis, locating the proposed Carty Solar Farm in close proximity to
18 these existing facilities would enable personnel to respond quickly should any maintenance or
19 operational issues arise at the Carty Solar Farm.³²

20 21 *Topography and Natural Resources* 22

23 The certificate holder's reasons justification describes that the use of EFU-zoned land for the
24 proposed Carty Solar Farm site is advantageous because the site does not contain topography
25 or structures that would create shading, and because the area receives some of the highest
26 available solar energy resource throughout the state, as modeled by NREL.

27 28 *Local Economic Benefits* 29

30 The certificate holder's reasons justification describes that the use of EFU-zoned land for the
31 proposed Carty Solar Farm site is advantageous because it would provide direct and indirect
32 local economic benefits. Construction, during peak activity, is expected to provide up to 130
33 jobs for local workers; and, would add to the local property tax base over the operational life.
34 Ongoing service and maintenance of the Carty Solar Farm could utilize local vendors, if
35 available, for services such as landscaping, panel washing, and other miscellaneous services.
36 Indirect benefits include the increased demand for short term rental property and hotel
37 services, food service, and other commodities or service industries during construction.

32 CGSAMD1. RFA1 Exhibit K, Section K.6.3. 2018-02-20.
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1 *Transportation Benefits*

2
3 The certificate holder's reasons justification describes that the use of EFU-zoned land for the
4 proposed Carty Solar Farm site is advantageous because of transportation related advantages.
5 The proposed site is within 18 travel miles of the Port of Morrow County allowing for the
6 delivery of materials via barge, if necessary, with minimal additional over land travel required
7 once materials are off loaded at the Port. The site is accessed from a federal highway (I-84) by a
8 well maintained paved county road (Tower Road). Only a small portion of the traffic on Tower
9 Road is associated with residential travel and the road is primarily already used for
10 industrial/agricultural uses. Since the additional permanent staff will be between zero and two
11 staff; there is negligible impact to transportation during normal operations. In addition to the
12 transportation benefits associated with the access roads; if deemed economical, the Carty Solar
13 Farm could receive construction materials via the existing Boardman rail spur and then
14 transport the materials the short remaining distance to the solar farm unit.

15
16 While the certificate holder provided its reasons justification in the context of OAR 660-004-
17 0022(3)(c), because this rule is not directly applicable to facility components under EFSC
18 review, the Department recommends Council make findings based on the "reasons" standard
19 under the Land Use standard [OAR 345-022-0030(4)(c)(A)] for a Goal 3 exception. Based upon
20 the above analysis, the Department recommends Council find that the proposed Carty Solar
21 Farm site would meet the goal exception "reasons" standard in OAR 345-022-0030(4)(c)(A)
22 due to the site's limited impacts to non-irrigated, non-productive agriculture lands; limited
23 impacts to adjacent farmland operations; access to I-84 and other transportation systems
24 include existing access roads and the Port of Morrow; access to local energy infrastructure
25 including the existing Carty Natural Gas Power Plant, Boardman Coal Plant, and Grasslands
26 Switchyard; regional electric transmission grid-system including the existing 500 kV
27 transmission line from Grassland to the BPA Slatt substation; and benefits to the regional and
28 county economy.

29
30 While the location also includes access to solar resources; and appropriate topographic and
31 geographic conditions for establishing a solar PV energy facility; these features are not
32 necessarily unique to the proposed site. While appropriate solar resources and topographic and
33 geographic conditions are necessary prerequisites for the development of a utility-scale solar
34 PV energy facility, because these features are generally available at other locations in the
35 region, the Department does not recommend that the Council base its Goal 3 exception
36 decision on these reasons. ;.

37
38 Significant Environmental, Economic, Social and Energy Consequences

39
40 Under OAR 345-022-0030(4)(c)(B) and ORS 469.504(2)(c)(B), in order for the Council to
41 determine whether to grant an exception to a statewide planning goal, the certificate holder
42 must show that "the significant environmental, economic, social and energy consequences" of

1 the proposed Carty Solar Farm have been identified and adverse impacts mitigated in
2 accordance with applicable Council standards.

3
4 *Environmental Consequences*

5
6 The proposed Carty Solar Farm must satisfy the requirements of all applicable EFSC standards,
7 rules and statutes. Applicable environmental EFSC standards include: General Standard of
8 Review; Soil Protection standard; Protected Areas standard; Recreation Standard; Scenic
9 Resources standard; Fish and Wildlife Habitat standard; and the Threatened and Endangered
10 Species standard. The site where the solar energy generating components would be located
11 does not contain any wetlands, streams, or other waterbodies.³³ Development of the Carty
12 Solar Farm would impact habitats in categories 2, 3, 4, and 6. Of these categories, impacts to
13 Category 2, 3 and 4 habitat must be mitigated in accordance with the Fish and Wildlife Habitat
14 standard and ODFW's Habitat Mitigation Policy, and would be mitigated as described in the
15 Wildlife and Habitat Monitoring and Mitigation Plan (Attachment D to this proposed order). The
16 potential for construction-related impacts to soils and the unabated introduction or spread of
17 noxious weeds would be minimized through implementation of PGE's Erosion and Sediment
18 Control Plan and Revegetation and Noxious Weed Control Plan (Attachment E to this proposed
19 order). Based on the Department's recommended findings of fact, conclusions of law, and
20 conditions of approval presented in the proposed order related to environmental EFSC
21 standards, the Department recommends that Council find that the proposed Carty Solar Farm,
22 including mitigation, would not cause significant adverse environmental consequences or
23 impacts.

24
25 *Economic Consequences*

26
27 The certificate holder explains that the proposed Carty Solar Farm would benefit the county
28 economy by increasing local area employment during the construction phase and adding to
29 the local property tax base over the estimated 30 year life of the facility. In addition,
30 construction of the facility could result in expenditures on local services (e.g., short-term
31 property rental, hotel services, food service, and other commodities or service industries),
32 and PGE may utilize local vendors, if available, for services such as landscaping, panel
33 washing, and other miscellaneous services during the facility operations and maintenance
34 phase. While existing area within the site boundary contains high value farmland and arable
35 land, the land is not irrigated and does not possess a water-right, is not used for productive
36 agricultural crops, and does not produce significant economic benefits. Therefore, based on
37 the certificate holder's characterization of existing agricultural production and use, the
38 Department recommends that the Council conclude that the proposed Carty Solar Farm

³³ CGSAMD1.RFA1 Exhibit P, Section P.2.3. 2018-02-20.
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1 would result in a net economic benefit compared to the site's existing uses and economic
2 value.

3 4 *Social Consequences*

5
6 The certificate holder represents that the proposed Carty Solar Farm would not result in
7 significant adverse social consequences. The Department considers social consequences as
8 impacts on a community from a proposed facility, such as impacts from facility visibility, noise,
9 traffic or demand on providers of public services. Based on distance, the certificate holder
10 explains that the proposed Carty Solar Farm would not be expected to result in significant
11 adverse visual or noise impacts on any scenic resource, protected areas, or important
12 recreational opportunity within the analysis areas. As demonstrated in the applicable sections
13 of this proposed order, the Department agrees that impacts to scenic resources, protected
14 areas, or recreational opportunities would, considering the recommended conditions, not
15 result in significant adverse impacts and would comply with the appropriate Council standards.
16 The Department addresses potential adverse impacts to public services (including traffic
17 impacts) in Section III.M, *Public Services*. As discussed in that section, the Department
18 recommends Council rely on previously imposed conditions that would minimize potential
19 adverse impacts. The certificate holder states that no known historic, cultural, or archaeological
20 resources are located at the proposed location of the Carty Solar Farm, but that PGE would
21 follow the Inadvertent Discovery Plan in the event that such resources are discovered during
22 construction.³⁴

23
24 Based on the Department's recommended findings of fact and conclusions of law, and
25 recommended conditions of compliance, as presented in the proposed order under the
26 Council's Scenic Resources standard; Historic, Cultural and Archeological standard; Public
27 Services standard; and Recreation standard, the proposed Carty Solar Farm would not cause
28 significant adverse social consequences.

29 30 *Energy Consequences*

31
32 The certificate holder represents that because the proposed Carty Solar Farm would produce
33 up to 50 MW of renewable, emissions-free energy, the energy consequences would be
34 beneficial. Because the proposed Carty Solar Farm would provide a source of renewable
35 energy, the Department recommends that the Council conclude that the proposed Carty Solar
36 Farm would not cause significant adverse energy consequences, and would provide a positive
37 energy consequence by producing clean, renewable electricity.

38

³⁴ CGSAMD1 Revised Request for Amendment 2018-02-20, Exhibit K, Section K.6.3.

1 Based upon the above analysis, the Department recommends the Council find that the facility
2 would meet the goal exception standard in OAR 345-022-0030(4)(c)(B).
3

4 Compatibility with Adjacent Land Uses³⁵
5

6 Under OAR 345-022-0030(4)(c)(C) (and ORS 469.504(2)(c)(C)), in order for the Council to
7 determine whether to grant an exception to a statewide planning goal, the certificate holder
8 must show that the proposed Carty Solar Farm is compatible with other adjacent land uses or
9 will be made compatible through mitigation measures. The certificate holder explains that
10 adjacent land uses include: water storage and supply at the Carty Reservoir, electricity
11 generation at Carty Generation Station Unit 1 and the Boardman Coal Plant, disposal of coal ash
12 at the Boardman Ash Disposal Area, conservation management at the South Farm Conservation
13 Area, military training activities at the Naval Weapons Systems Training Facility (NWSTF)
14 Boardman, and agricultural operations at Threemile Canyon Farms. The Department
15 recommends that the evaluation of compatibility with adjacent land uses be based on both
16 adjacent land use zone designations and land uses. As represented in RFA Exhibit K, Figure K-1,
17 land use zone designations within the analysis area include EFU and general industrial. Based
18 upon the evaluation of impacts under Council standards, including noise, visual, traffic and
19 transportation impacts, as presented in this proposed order, the proposed land use
20 (photovoltaic solar power generation facility) would not be expected to be incompatible with
21 adjacent land uses zoned general industrial and EFU.
22

23 The Carty Solar Farm would be separated from the Carty Generation Station Unit 1 and the
24 Boardman Coal Plant by the Carty Reservoir. Operation of the proposed facility would generate
25 no air emissions and therefore would not affect the ability of either of these power plants to
26 meet air quality requirements. In addition, at a distance of over one mile away, operational
27 noise from the Carty Solar Farm would have a negligible effect on noise levels at Carty
28 Generation Station Unit 1 and the Boardman Coal Plant. Therefore, the Carty Solar Farm would
29 be compatible with electricity generation at these two power plants. In addition, the Boardman
30 Coal Plant and Carty Generation Station Unit 1 offer multiple potential points of
31 interconnection for the Carty Solar Farm.
32

33 PGE currently disposes of coal ash from the Boardman Coal Plant at the Boardman Ash
34 Disposal. This use will end after the Boardman Coal Plant ceases using coal (no later than the
35 end of the year 2020) and the site will be permanently closed and revegetated. PGE states that
36 the Carty Solar Farm would not impact the disposal of ash at this site or the closure of the
37 Boardman Ash Disposal Area.
38

39 The Nature Conservancy (TNC) manages the South Farm Conservation Area (also known as the
40 Boardman Conservation Area) to maintain and improve habitat for the Washington ground

³⁵ CGSAMD1 Revised Request for Amendment 2018-02-20, Exhibit K, Section K.6.3.
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squirrel, ferruginous hawk, loggerhead shrike, and sage sparrow. The proposed Carty Solar Farm would be located outside of the conservation area. PGE represents that the proposed facility would not interfere with TNC's ability to manage vegetation or to control activities such as hunting and soil disturbance within the conservation area, and the certificate holder would minimize the likelihood of unabated introduction or spread of noxious weeds to the conservation area through implementation of the Revegetation and Noxious Weed Control Plan (Attachment E to this proposed order).

The NWSTF Boardman is located more than a mile east of the proposed Carty Solar Farm site and would therefore not create any physical obstruction to use of the training facility. The U.S. Navy and PGE discussed the potential for glare from the Carty Solar Farm to impact flight paths to the NWSTF Boardman. Following that discussion, PGE filed a Notice of Proposed Construction (Form 7460-1) with the Federal Aviation Administration (FAA) on July 13, 2016 and the FAA subsequently issued a determination of no hazard.³⁶

Finally, for adjacent and nearby farmland (Threemile Canyon Farms land generally to the north and west of the proposed facility), as described above [under the MCZO 6.025 analysis], the Department recommends that the Council conclude that the proposed facility would not cause a significant change to accepted farm practices nor significantly increase the cost of accepted farm practices within the surrounding area. Therefore, the Department recommends that Council conclude that the proposed facility would be compatible with other adjacent land uses and land use zones and that the facility would meet the goal exception standard in OAR 345-022-0030(4)(c)(C).

Conclusions of Law

Based on the foregoing findings and the evidence in the record, and subject to compliance with the recommended conditions, the Department recommends the Council find an exception to Goal 3 is justified under OAR 345-022-0030(4)(c) and ORS 469.504(2)(c); and that therefore the Council find that the proposed facility complies with MCZO 3.010.K.3 and complies with the applicable statewide planning goal (Goal 3). As such, subject to the recommended conditions, the Department recommends the Council find that the proposed facility complies with the Council's Land Use standard.

III.F. 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.

³⁶ CGSAMD1 Revised Request for Amendment 2018-02-20, Exhibit E, Section E.2.2 and Appendix E-2.
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1 *References in this rule to protected areas designated under federal or state statutes*
2 *or regulations are to the designations in effect as of May 11, 2007:*

3
4 *(a) National parks, including but not limited to Crater Lake National Park and Fort*
5 *Clatsop National Memorial;*

6
7 *(b) National monuments, including but not limited to John Day Fossil Bed National*
8 *Monument, Newberry National Volcanic Monument and Oregon Caves National*
9 *Monument;*

10
11 *(c) Wilderness areas established pursuant to The Wilderness Act, 16 U.S.C. 1131 et*
12 *seq. and areas recommended for designation as wilderness areas pursuant to 43*
13 *U.S.C. 1782;*

14
15 *(d) National and state wildlife refuges, including but not limited to Ankeny, Bandon*
16 *Marsh, Baskett Slough, Bear Valley, Cape Meares, Cold Springs, Deer Flat, Hart*
17 *Mountain, Julia Butler Hansen, Klamath Forest, Lewis and Clark, Lower Klamath,*
18 *Malheur, McKay Creek, Oregon Islands, Sheldon, Three Arch Rocks, Umatilla, Upper*
19 *Klamath, and William L. Finley;*

20
21 *(e) National coordination areas, including but not limited to Government Island,*
22 *Ochoco and Summer Lake;*

23
24 *(f) National and state fish hatcheries, including but not limited to Eagle Creek and*
25 *Warm Springs;*

26
27 *(g) National recreation and scenic areas, including but not limited to Oregon Dunes*
28 *National Recreation Area, Hell's Canyon National Recreation Area, and the Oregon*
29 *Cascades Recreation Area, and Columbia River Gorge National Scenic Area;*

30
31 *(h) State parks and waysides as listed by the Oregon Department of Parks and*
32 *Recreation and the Willamette River Greenway;*

33
34 *(i) State natural heritage areas listed in the Oregon Register of Natural Heritage*
35 *Areas pursuant to ORS 273.581;*

36
37 *(j) State estuarine sanctuaries, including but not limited to South Slough Estuarine*
38 *Sanctuary, OAR Chapter 142;*

39
40 *(k) Scenic waterways designated pursuant to ORS 390.826, wild or scenic rivers*
41 *designated pursuant to 16 U.S.C. 1271 et seq., and those waterways and rivers listed*
42 *as potentials for designation;*

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

4 (m) Agricultural experimental stations established by the College of Agriculture,
5 Oregon State University, including but not limited to: Coastal Oregon Marine
6 Experiment Station, Astoria Mid-Columbia Agriculture Research and Extension
7 Center, Hood River Agriculture Research and Extension Center, Hermiston Columbia
8 Basin Agriculture Research Center, Pendleton Columbia Basin Agriculture Research
9 Center, Moro North Willamette Research and Extension Center, Aurora East Oregon
10 Agriculture Research Center, Union Malheur Experiment Station, Ontario Eastern
11 Oregon Agriculture Research Center, Burns Eastern Oregon Agriculture Research
12 Center, Squaw Butte Central Oregon Experiment Station, Madras Central Oregon
13 Experiment Station, Powell Butte Central Oregon Experiment Station, Redmond
14 Central Station, Corvallis Coastal Oregon Marine Experiment Station, Newport
15 Southern Oregon Experiment Station, Medford Klamath Experiment Station, Klamath
16 Falls;

17
18 (n) Research forests established by the College of Forestry, Oregon State University,
19 including but not limited to McDonald Forest, Paul M. Dunn Forest, the Blodgett
20 Tract in Columbia County, the Spaulding Tract in the Mary's Peak area and the
21 Marchel Tract;

22
23 (o) Bureau of Land Management areas of critical environmental concern,
24 outstanding natural areas and research natural areas;

25
26 (p) State wildlife areas and management areas identified in OAR chapter 635,
27 Division 8.

28
29 **Findings of Fact**

30 The Protected Areas standard requires the Council to find that, taking into account mitigation,
31 the design, construction, and operation of a facility are not likely to result in significant adverse
32 impacts to any protected area as defined by OAR 345-022-0040. Impacts to protected areas are
33 evaluated based on identification of protected areas, pursuant to OAR 345-022-0040, within
34 the analysis area and an evaluation of the following potential impacts during facility
35 construction and operation: excessive noise, increased traffic, water use, wastewater disposal,
36 visual impacts of facility structures or plumes, and visual impacts from air emissions.

37
38 In accordance with OAR 345-001-0010(59)(e) and consistent with the study area boundary, the
39 analysis area for protected areas is the area within and extending 20 miles from the site
40 boundary.

The certificate holder identified nine protected areas within the analysis area. These protected areas are presented in Table 3, *Protected Areas within Facility Analysis Area and Distance from Site Boundary* below.

Table 3: Protected Areas within the Analysis Area and Distance from Site Boundary

Name	Distance and Direction from the Amended Site Boundary	Basis for Protection
Boardman Research Natural Area	2.7 miles east	OAR 345-022-0040(I)(o)
Horn Butte Area of Critical Environmental Concern	7.1 miles west	OAR 345-022-0040(I)(o)
Lindsay Prairie Preserve	7.8 miles southeast	OAR 345-022-0040(I)(o)
Umatilla National Wildlife Refuge	9.1 miles north	OAR 345-022-0040(I)(d)
Willow Creek Wildlife Area	10.0 miles northwest	OAR 345-022-0040(I)(p)
Coyote Springs Wildlife Area	11.7 miles northeast	OAR 345-022-0040(I)(p)
Irrigon Wildlife Area	18.4 miles northeast	OAR 345-022-0040(I)(p)
Irrigon Hatchery	19.2 miles northeast	OAR 345-022-0040(I)(f)
Umatilla Fish Hatchery	19.2 miles northeast	OAR 345-022-0040(I)(f)

As presented in Table 3, *Protected Areas within Facility Analysis Area and Distance from Site Boundary*, the majority of the listed protected areas are located at least 7 miles from the proposed amended site boundary. The protected area closest to the proposed amended site boundary is the Boardman Research Natural Area (2.7 miles east). Potential adverse impacts to protected areas during construction and operation of the facility, with proposed changes, from noise, traffic, water use and wastewater disposal, and visual are discussed below.

Potential Noise Impacts

The significance of potential noise impacts to identified protected areas is based on the magnitude and likelihood of the impact on the affected human population or natural resource that uses the protected area.³⁷ The nearest protected area, Boardman Research Natural Area, is

³⁷ The Protected Areas standard requires the Council to find that, taking into account mitigation, the design, construction and operation of a facility are not likely to result in significant adverse impacts to any protected area as defined by OAR 345-022-0040. OAR 345-001-0010(53) defines "significant" as: "having an important consequence, either alone or in combination with other factors, based upon the magnitude and likelihood of the impact on the affected human population or natural resources, or on the importance of the natural resources affected, considering the context of the action or impact, its intensity and the degree to which possible impacts are caused by the proposed action. Nothing in this definition is intended to require a statistical analysis of the magnitude or likelihood of a particular impact."

1 a site managed for scientific and educational uses associated with scheduled military use of the
2 Boardman Bombing Range, and for preservation of grasslands and wildlife habitat. Based on
3 this function and purpose, the Boardman Research Natural Area could be affected if adverse
4 noise levels from the facility, with proposed changes, were audible. Potential noise impacts at
5 the Boardman Research Natural Area from construction and operation of the facility, with
6 proposed changes, are evaluated below.

7 8 *Construction*

9
10 The proposed Carty Solar Farm would generate construction-related noise. Construction related
11 noise would be short-term and intermittent and would result from site clearing, excavation,
12 foundation work, and equipment installation. Construction equipment noise levels are
13 estimated to be less than 50 A-weighted decibels [dBA] at a distance of 5-miles, which is
14 equivalent to noise levels of light traffic. ~~Because the nearest protected area is located~~
15 ~~approximately 7-miles from the proposed amended site boundary, anticipated construction-~~
16 ~~related noise levels is expected to be substantially less than 50 dBA due to noise~~
17 ~~attenuation.~~The Boardman Research Natural Area is located 2.7 miles from the proposed
18 amended site boundary; therefore, anticipated construction-related noise levels would be
19 expected to be greater than 50 dBA.

20
21 Existing Condition 13.1 would reduce noise impacts during construction by requiring the use of
22 exhaust mufflers on combustion engine-powered equipment; and requires that the certificate
23 holder establish a noise complaint response system, and provide, upon request, noise
24 complaint records to the Department. ~~Due to the relatively low noise levels anticipated given~~
25 ~~the distance from the proposed amended site boundary and nearest protected area~~Based on
26 the distance of construction-related noise, and short-term, intermittent nature of construction
27 activities, and relatively quiet noise levels, the Department recommends that Council continue
28 to find that construction of the facility, with proposed changes, would not be likely to result in
29 significant adverse noise impacts at the Boardman Research Natural Area. Because the other
30 protected areas within the analysis area are located at greater distances from the proposed
31 amended facility site boundary than the Boardman Research Natural Area, the Department
32 recommends that Council conclude that potential construction-related noise impacts from the
33 facility, with proposed changes, at these protected areas would also not likely be potentially
34 significant or adverse.

35 36 *Operation*

37
38 The proposed Carty Solar Farm would result in potential maximum overall A-weighted sound
39 power level output of 44 dBA at 400 feet. In RFA1, the certificate holder provides a noise
40 analysis of the proposed Carty Solar Farm including the following sources:

- 41
- 42 • 25 inverters at 87 dBA
- 43 • 25 Step-up transformers at 94 dBA
- 44

1 As presented in RFA1 Exhibit X, the noise modeling analysis for operational noise demonstrates
2 that noise generated by the proposed Carty Solar Farm would be less than 30 dBA, equivalent
3 to the noise level of a soft whisper, at the Boardman Research Natural Area. Therefore, based
4 on the certificate holder's noise modeling assessment, the Department recommends Council
5 find that operation of the proposed Carty Solar Farm would not be likely to result in significant
6 adverse noise impacts to any protected areas within the analysis area.

7 8 *Potential Traffic Impacts*

9 10 *Construction*

11
12 The proposed Carty Solar Farm would generate construction-related traffic, not expected to
13 exceed 400 trips per day. The certificate holder describes that construction-related traffic
14 would utilize I-84 and Tower Road. While each of the nine protected areas may be accessed via
15 I-84, based on the distance from the protected areas to Tower Road, the Department
16 recommends Council find that construction-related traffic would not be expected to result in
17 significant adverse impacts to any protected area within the analysis area.

18
19 While not related to impacts under the Council's Protected Areas standard, as described in
20 Section III.M. Public Services, the Department recommends Council amend Condition 6.17 and
21 impose Condition 6.26. These conditions would require that the certificate holder, prior to and
22 during construction, evaluate construction related traffic to confirm whether a Traffic Impact
23 Assessment (TIA) is required in accordance with MCZO Section 3.010(N)(1); the conditions also
24 require that the certificate holder develop and implement a Construction Traffic Management
25 Plan to minimize traffic impacts on Tower Road.

26
27 Because access roads to protected areas would not be used or impacted, the Department
28 recommends Council find that construction-related traffic impacts would not be likely to result
29 in a significant adverse traffic impact to protected areas within the analysis area.

30 31 *Operation*

32
33 The proposed Carty Solar Farm would generate operational-related traffic. However, the
34 certificate holder asserts that operational traffic would result in up to 2 additional vehicle trips
35 per day and would not utilize roads providing access to any of the identified protected areas,
36 other than Tower Road. Because operation of the proposed Carty Solar Farm would not
37 substantially increase trip generation on Tower Road, the Department recommends Council
38 find that operational-traffic impacts would not be likely to result in a significant adverse impact
39 to protected areas within the analysis area.

40 41 *Potential Water Use and Wastewater Disposal Impacts*

42 43 *Construction and Operation*

1 Construction and operation of the proposed Carty Solar Farm would utilize water and generate
2 wastewater for disposal. Construction would use approximately 8 million gallons of water
3 primarily for dust suppression, equipment and vehicle washing, and fire suppression obtained
4 from Carty Reservoir, of which PGE maintains a water right, through a third-party limited water
5 use license from Oregon Department of Water Quality. During operation, the proposed Carty
6 Solar Farm would have minimal water needs, 2 to 5 acre-feet of water per year, for solar panel
7 washing obtained from Carty Reservoir.

8
9 Construction and operation of the proposed Carty Solar Farm would generate wastewater for
10 disposal. During construction, wastewater would be generated from washing equipment and
11 vehicles, washing concrete trucks after delivery of concrete loads, and fire suppression. The
12 certificate holder maintains an existing Water Pollution Control Facilities (WPCF) permit, issued
13 by Oregon Department of Environmental Quality but governed and incorporated into the site
14 certificate. The existing WPCF authorizes wastewater disposal through evaporation and
15 seepage from construction-related wastewater. During operations, wastewater would be
16 generated from solar panel washing, which is not currently authorized by the WPCF permit.
17 Therefore, through the EFSC amendment process, the certificate holder requests to modify its
18 WPCF to allow disposal of solar panel wash water through evaporation and seepage. Based on
19 DEQ's review of the WPCF permit amendment request, a new condition would be imposed to
20 prohibit the use of soaps and chemicals, as described in Section III.D. *Soil Protection* of this
21 order. Any potential wastewater generated from stormwater runoff during construction would
22 be managed in accordance with the BMPs described in the NPDES 1200-C / Erosion and
23 Sediment Control Plan until that permit is terminated. Condition 9.5 requires the applicant to
24 monitoring and repair any erosion concerns during operations.

25
26 As described, water use and wastewater disposal during both construction and operation of the
27 proposed Carty Solar Farm would not result in water withdrawal from a protected area of
28 wastewater disposal to a protected area within the analysis area. Therefore, the Department
29 recommends Council find that the proposed Carty Solar Farm would avoid all impacts from
30 water use and wastewater disposal to protected area within the analysis area.

31 32 *Visual Impacts of Facility Structures*

33
34 The proposed Carty Solar Farm and its supporting facilities would result in visible facility
35 structures including solar modules with a maximum height of 10 feet; inverters with a
36 maximum height of 11 feet; and, a 34.5 kV transmission line with 70-foot-tall wooden poles.
37 To support its evaluation of potential visual impacts of the proposed Carty Solar Farm and its
38 supporting facilities, the certificate holder completed a zone of visual influence (ZVI) analysis.³⁸
39 A ZVI analysis identifies visibility based on topography but does not account for screening from
40 vegetation or structures.

³⁸ CGSAMD1. Request for Additional Information Responses. 2018-09-24.
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1
2 Based on the ZVI analysis, as presented in Figure ~~R-1L-2~~, the proposed Carty Solar Farm and its
3 supporting facilities would be visible from small areas within Boardman Research Natural Area
4 and Horn Butte ACEC located 2.7 and 7.1 miles, respectively, from the proposed amended site
5 boundary. The certificate holder argues that because public access to the Boardman Research
6 Natural Area is restricted, visual impacts would be limited because there are limited users that
7 could be impacted. Based on the primary uses of the Boardman Research Natural Area,
8 restricted public access, and minimal areas from which the proposed Carty Solar Farm would be
9 visible, the Department recommends Council find that visual impacts would not likely result in a
10 significant adverse impact to this protected area. Similarly, based on the distance of over 7
11 miles to the next closest protected area (Horn Butte ACEC), and minimal areas from which the
12 proposed Carty Solar Farm would be visible, the Department recommends Council find that
13 visual impacts would not likely result in a significant adverse impact to this protected area.
14

15 *Visual Impacts from Air Emissions*

16
17 There would be no air emissions from the proposed Carty Solar Farm and therefore no related
18 visual impacts.
19

20 **Conclusions of Law**

21
22 Based on the foregoing recommended findings, the Department recommends that Council find
23 that the design, construction and operation of the proposed Carty Solar ~~FArm-Farm~~ would not
24 be likely to result in significant adverse impacts to any protected areas, in compliance with the
25 Council's Protected Area standard.

26 **III.G. Retirement and Financial Assurance: OAR 345-022-0050**

27
28 *To issue a site certificate, the Council must find that:*
29

- 30 (1) *The site, taking into account mitigation, can be restored adequately to a useful, non-*
31 *hazardous condition following permanent cessation of construction or operation of*
32 *the facility.*
33 (2) *The applicant has a reasonable likelihood of obtaining a bond or letter of credit in a*
34 *form and amount satisfactory to the Council to restore the site to a useful, non-*
35 *hazardous condition.*
36

37 **Findings of Fact**

38 The Retirement and Financial Assurance standard requires a finding that the facility site can be
39 restored to a useful, non-hazardous condition at the end of the facility's useful life, should

1 either the certificate holder stop construction or should the facility cease to operate.³⁹ In
2 addition, it requires a demonstration that the certificate holder can obtain a bond or letter of
3 credit in a form and amount satisfactory to the Council to restore the site to a useful, non-
4 hazardous condition.

5
6 *Restoration of the Site Following Cessation of Construction or Operation*
7

8 OAR 345-022-0050(1) requires the Council to find that the site of the facility, with proposed
9 changes, can be restored to a useful non-hazardous condition at the end of the facility's useful
10 life.

11
12 In RFA1, the certificate holder describes the tasks and actions necessary to restore the site of
13 the proposed Carty Solar Farm and its supporting facilities to a useful, nonhazardous condition.
14 The tasks and actions would include removal of solar arrays; demolition of racking structure,
15 piles, electrical equipment (which includes conductors, transformers, inverters, switchgear,
16 lines, and poles), as well as fencing and concrete pads. Concrete foundations and cables,
17 located within 3 feet of the surface, would be removed. Cables located three feet or more
18 below ground would be abandoned in accordance with applicable Oregon laws and regulations,
19 and left in place. Gravel would be removed from access roads; and disturbed areas would be
20 regraded and reseeded to be consistent with the surrounding areas.

21
22 Council previously imposed several conditions to ensure the certificate holder could satisfy the
23 Retirement and Financial Assurance standard, as summarized below:
24

- 25 • Condition 15.3, which mirrors the OAR 345-025-0060(7) Mandatory Condition, requires
26 that the certificate holder prevent the development of any condition on the site that
27 would preclude restoration of the site to a useful, non-hazardous condition
- 28 • Condition 15.4, which mirrors the OAR 345-025-0060(9) Mandatory Condition, requires
29 the certificate holder to retire the facility in accordance with a Council-approved
30 retirement plan
- 31 • Condition 15.5, which mirrors the OAR 345-025-0060(16) Mandatory Condition,
32 provides the Department the authority to develop a retirement plan, for Council
33 approval, in the event the certificate holder ceases operation of its facility and does not
34 retire the facility in accordance with a Council approved retirement plan
35

36 In Section III.B., *Organizational Expertise* of this order, the Department recommends Council
37 finds that the certificate holder has the organizational expertise to construct, operate, and
38 retire the facility in compliance with that Council standard. In addition, the Department
39 recommends Council finds that the certificate holder would continue to satisfy the
40 requirements of the Soil Protection, Fish and Wildlife Habitat, and Waste Minimization

³⁹ OAR 345-022-0050(1).
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standards (Sections III.D., III.H. and III.N. of this order, respectively). Each of those sections describes existing and recommended amended conditions designed to minimize adverse impacts on the surrounding land from construction and operation of the components proposed in the amendment request.

Subject to compliance with existing conditions identified above, the Department recommends the Council find that the site of the facility, with proposed changes, could be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation.

Estimated Cost of Site Restoration

OAR 345-022-0050(2) requires the Council to find that the certificate holder continues to have a reasonable likelihood of obtaining a bond or letter of credit in a form and amount necessary to restore the site of the facility, with proposed changes, to a useful non-hazardous condition.

In RFA1, the certificate holder provides a site restoration cost estimate for the proposed Carty Solar Farm and its supporting facilities of approximately \$2.4 million (Q3 2016 dollars). The site restoration cost estimate was prepared by Blue Oak Energy, the certificate holder's consultant. Blue Oak Energy is a leading solar energy company that has constructed over 700 MW of utility scale solar projects. Blue Oak Energy evaluated labor requirements, equipment needs and duration for each of the tasks and actions identified for site restoration. Labor and equipment rates were based on US Department of Labor wage determinations. Typical industry standards were applied for contingency, overhead and fee.

Based on this information, the Department recommends Council conclude that the certificate holder's consultant, Blue Oak Energy, has the experience necessary to adequately and accurately prepare a cost estimate for decommissioning and restoration of the site of the proposed Carty Solar Farm and its supporting facilities (including interconnection transmission line and interconnection equipment).

**Table 4: Proposed Carty Solar Farm and Supporting Facilities
Site Restoration Cost Estimate**

Restoration Activity	Estimated Cost
<i>Carty Solar Farm and Supporting Facilities</i>	
Mobilization and Management	\$597,200
Module and Rack Disassembly	\$380,450
Pile Removal	\$66,250
Electrical Demolition	\$289,172
Civil Site Reclamation	\$183,700
Materials Transportation and Disposal	\$379,300
Subtotal =	1,896,072
<i>Applied Contingencies*</i>	

**Table 4: Proposed Carty Solar Farm and Supporting Facilities
Site Restoration Cost Estimate**

Restoration Activity	Estimated Cost
1% Performance Bond ¹	\$18,960
10% Administration and Project Management ²	\$189,607
20% Future Development Contingency ³	\$379,214
10% Profit Margin for Decommissioning Entity ⁴	\$189,607
2.1% Permitting and Insurance ⁴	\$39,817
Subtotal =	\$817,205
Carty Solar Farm and Supporting Facilities, Total (Q3 2016 dollars) =	\$2,713,277
<p>*Notes: The Department recommends Council apply additional contingencies, consistent with those applied to the approved facility, as follows:</p> <ol style="list-style-type: none"> 1. 1% to account for the cost of a performance bond that would be posted by the contractor as assurance that the work will be completed as agreed. 2. 10% for the Department's administrative and management expenses. 3. 20% for future uncertainties such as changes in environmental standards or other legal requirements, availability of disposal sites, and the cost of labor and equipment. 4. Contingencies as represented in RFA1 Exhibit W. 	

As presented in Table 4, *Proposed Carty Solar Farm and Supporting Facilities Site Restoration Cost Estimate*, the Department recommends Council add contingency costs for future development, administration and project management cost, and cost for maintaining a performance bond. The 20 percent future development contingency accounts for uncertainty in the decommissioning estimate. If site restoration becomes necessary, it might be many years in the future where there is uncertainty of continued adequacy of the retirement cost estimate. Uncertainty factors include different environmental standards or other legal requirements; and, changes in cost of labor and equipment that increase at a rate exceeding the standard inflation adjustment. The 10 percent contingency for administrative and management expenses are the anticipated direct costs borne by the State in the course of managing site restoration and would include the preparation and approval of a final retirement plan, obtaining legal permission to proceed with demolition of the facility, legal expenses for protecting the State's interest, preparing specification bid documents and contracts for demolition work, managing the bidding process, negotiations of contracts, and other tasks. Based on the adjustments from contingencies, the Department recommends Council find that \$2.7 million (Q3 2016 dollars) is a reasonable estimate of an amount satisfactory to restore the site to a useful, nonhazardous condition. The Department, therefore, recommends the Council amend Condition 15.1 as follows:

Condition 15.1, as amended: Before beginning construction of each generating block, the certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The initial bond or letter of credit amount for Unit 1 is \$7.884 million (in 3rd Quarter 2011 dollars), to be adjusted to the date of issuance, and adjusted on an annual basis

Commented [A5]: Incorporate corresponding edits into the redline site certificate.

thereafter, as described in sub-paragraph (a) of this condition. The initial bond or letter of credit amount for the Carty Solar Farm and its supporting facilities Block 2 is ~~\$6.670~~ 2.7 million (in 3rd Quarter 2016~~1~~ dollars) to be adjusted to the date of issuance, and adjusted on an annual basis thereafter, as described in sub-paragraph (a) of this condition. [AMD1]

- a. The certificate holder may adjust the amount of the bond or letter of credit based on the final design configuration of the facility and turbine types selected. Any revision to the restoration costs should be adjusted to the date of issuance as described in (b), and is subject to review and approval by the Department.
 - b. The certificate holder shall adjust the amount of the bond or letter of credit, using the following calculation and subject to approval by the Department.
 - i. Adjust the amount of the bond or letter of credit amount (~~expressed in 3rd Quarter 2011 dollars~~ expressed in 3rd Quarter 2011 dollars for Unit 1 and Q3 2016 dollars for Carty Solar Farm) to present value, using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of Administrative Services' "Oregon Economic and Revenue Forecast" or by any successor agency (the "Index") and using the ~~3rd Quarter 20161~~ index value applicable to Unit 1 and the Carty Solar Farm and the quarterly index value for the date of issuance of the new bond or letter of credit. If at any time the Index is no longer published, the Council shall select a comparable calculation to adjust ~~3rd Quarter 20161 dollars~~ the bond or letter of credit to present value. [AMD1]
 - ii. Round the resulting total to the nearest \$1,000 to determine the financial assurance amount.
 - c. The certificate holder shall use a form of bond or letter of credit approved by the Council.
 - d. The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.
 - e. The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under Condition VI.4.
 - f. The bond or letter of credit shall not be subject to revocation or reduction before retirement of the facility site.
- [Final Order IV.G.2.9] [Mandatory Condition OAR 345-025~~7~~-0020(8)] [AMD]

Based on compliance with recommended amended Condition 15.1, the Department recommends Council find that the retirement cost estimate, with applied contingencies, is a reasonable estimate of an amount satisfactory to restore the site of the proposed Carty Solar Farm and its supporting facilities to a useful, non-hazardous condition.

Ability of the Certificate Holder to Obtain a Bond or Letter of Credit

OAR 345-022-0050(2) requires the Council to find that the certificate holder has a reasonable likelihood of obtaining a bond or letter of credit in a *form* and amount necessary to restore the site of the proposed Carty Solar Farm and its supporting facilities to a useful non-hazardous condition [Emphasis added]. A bond or letter of credit provides a site restoration remedy to

1 protect the state of Oregon and its citizens if the certificate holder fails to perform its obligation
2 to restore the site. The bond or letter of credit must remain in force until the certificate holder
3 has fully restored the site. OAR 345-025-0010(8) establishes a mandatory condition, imposed as
4 Condition 15.1, which ensures compliance with this requirement.

5
6 Based on the estimate shown in Table 4, *Proposed Carty Solar Farm and Supporting Facilities*
7 *Site Restoration Cost Estimate*, the value of the financial assurance bond or letter of credit for
8 restoring the site of the proposed Carty Solar Farm and its supporting facilities would be
9 approximately \$2.7 million (Q3 2016 dollars), adjusted annually as described in the
10 recommended amended condition above. To demonstrate its ability to receive an adequate
11 bond or letter of credit, the certificate holder provides a January 31, 2018 letter from JPMorgan
12 Chase Bank, N.A., stating that it would be willing to issue a letter of credit to the certificate
13 holder in an amount up to \$12 million, which exceeds the \$2.7 million retirement cost estimate.
14 The bank letter is intended solely to demonstrate, for Council's review of the amendment
15 request and the certificate holder's ability to satisfy the requirements of the Retirement and
16 Financial Assurance standard, that the certificate holder has a reasonable likelihood of
17 obtaining a bond or letter of credit, prior to construction, in the amount necessary for site
18 restoration.

19
20 The Department recommends Council consider the bank letter sufficient for representing a
21 reasonable likelihood of obtaining a bond or letter of credit in the amount necessary for site
22 restoration. Additionally, as described above and in accordance with Condition 15.1,
23 construction cannot begin until the Department receives a satisfactory bond or letter of credit.

24
25 Subject to compliance with existing and recommended amended conditions, the Department
26 recommends the Council find that the site of the proposed Carty Solar Farm and its supporting
27 facilities can be restored adequately to a useful, non-hazardous condition following permanent
28 cessation of construction or operation. Additionally, the Department recommends that the
29 Council find that the certificate holder has a reasonable likelihood of obtaining a bond or letter
30 of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-
31 hazardous condition.

32 33 **Conclusions of Law**

34 For the reasons describe above, and subject to the existing and recommended amended site
35 certificate conditions, the Department recommends that the Council find that the facility, with
36 proposed changes, would comply with the Council's Retirement and Financial Assurance
37 standard.

38 **III.H. Fish and Wildlife Habitat: OAR 345-022-0060**

39

To issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are consistent with:

(1) The general fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025(1) through (6) in effect as of February 24, 2017

Findings of Fact

The EFSC Fish and Wildlife Habitat standard requires the Council to find that the design, construction, and operation of a facility is consistent with the Oregon Department of Fish and Wildlife's (ODFW) habitat mitigation goals and standards, as set forth in OAR 635-415-0025. This rule creates requirements for mitigating impacts to fish and wildlife habitat, based on the functional quantity and quality of the habitat impacted as well as the nature, extent, and duration of the impact. The rule also establishes a habitat classification system based on the function and value of the habitat it would provide to a species or group of species likely to use it. ODFW policy identifies six habitat categories, with Category 1 being the most valuable, and Category 6 the least valuable.

The analysis area for potential fish and wildlife habitat impacts, as defined in the project order, is the area within and extending ½-mile from the site boundary.⁴⁰ To inform the evaluation of impacts under the Council's Fish and Wildlife Habitat standard, three types of biological surveys were conducted including habitat mapping, wetland and waterbody delineations, and protocol-level Washington ground squirrel (WGS) surveys, as further described below.

Habitat Types and Categories in the Analysis Area

To identify potential habitat category and types within the analysis area, the certificate holder's consultant Ecology and Environment, Inc. (E&E) conducted both field and desktop surveys. The field survey, conducted during the week of April 4, 2016, included ten survey plots with 15-foot radii established at representative locations in distinct habitat types within the proposed site boundary expansion areas.⁴¹ To evaluate habitat within the ½-mile analysis area, E&E conducted a desktop review of aerial photography, Oregon Gap Analysis Program, and data collected during the 2016 field survey.⁴²

Habitat category and subtypes identified within the analysis area include the following:

⁴⁰ CGSNOIDoc17. Project Order, p.18. 2009-11-03.

⁴¹ As explained in RFA1 Exhibit P, while the survey area for habitat mapping relied upon ten survey plots, all grassland and shrub steppe habitats within the proposed site boundary expansion areas and new or modified features within the original site boundary, plus an additional 1,000 feet beyond such areas were included in the WGS survey area.

⁴² CGSAMD1DocXX. Exhibit P, Appendix P-1, p-1. 2018-02-14.

- Category 1
 - Washington Ground Squirrel (WGS) Occupied: areas with suitable habitat that are within a 785-foot buffer of active WGS burrow
- Category 2
 - WGS Potential Seasonal Home Range Shift and Dispersal Areas: 1500-meter buffer from active WGS burrow
- Category 3
 - Sagebrush steppe
 - Riparian forest
 - Riparian scrub wetland
- Category 4
 - Sagebrush steppe (disturbed)
 - Grasslands (degraded)
 - Grasslands (post-burn)
 - Cheatgrass savannah
 - Broom snakeweed shrublands
- Category 5
 - Riparian meadow (disturbed)
- Category 6
 - Agriculture Cropland
 - Artificial Pond⁴³
 - Developed

In RFA1 Exhibit P, Category 2 habitat (WGS Potential Seasonal Home Range Shift) is described as including suitable WGS habitat within 300-meters of Category 1 WGS habitat, and Category 3 habitat (WGS Potential Seasonal Dispersal Areas) is described as including suitable WGS habitat within 1,200-meters of Category 2 WGS habitat. In an April 6, 2018 comment letter, ODFW recommended that Category 2 WGS habitat include any suitable WGS habitat within 1,500-meters of an active WGS burrow unless there is a break in the habitat that would pose as a barrier to WGS movements. The certificate holder argues that ODFW's recommendation does not adequately consider the spatial and habitat quality context of a particular site, and expresses that the basis of potential species dispersal into adjacent habitat does not on its own make the habitat "essential." However, as represented in supplemental information provided by the certificate holder, included as Attachment D to this order, the certificate holder revised its habitat mapping and impact tables based on ODFW's recommendation. Because ODFW considers WGS movement to be an "essential" part of their life history for genetic interchange among colonies, and because available habitat within the Columbia Basin for dispersal is limited, the habitat categories presented above are based on ODFW's recommendation (i.e.

⁴³ ODFW concurred that the artificial pond habitat categorization in this case, they also noted that not all artificial water bodies are considered Category 6 habitat because many man-made water bodies serve as important wildlife habitat for many wildlife species.

RFA1 Exhibit P identifies WGS Potential Seasonal Dispersal Areas as Category 3 habitat; however, based on ODFW's comments, WGS Potential Seasonal Dispersal Areas is identified as Category 2 habitat). The Department concurs with ODFW's recommendations regarding habitat categorization for Washington ground squirrel habitat and recommends Council evaluate habitat impacts and mitigation based on ODFW's recommendations.

Potential Impacts to Fish and Wildlife Habitat

Construction and operation of the proposed Carty Solar Farm and its supporting facilities would result in temporary, temporal and permanent habitat impacts to Category 2 (WGS Potential Seasonal Home Range Shift); Category 3 (Sagebrush steppe; Riparian forest); Category 4 (Sagebrush steppe, disturbed; Broom snakeweed shrublands; grasslands, post-burn; grasslands, degraded; Cheatgrass savannah); and Category 6 (agricultural cropland and developed areas).⁴⁴ Impacts to Category 6 habitat do not require compensatory mitigation under the Council's Fish and Wildlife Habitat standard.

As presented in Table 5, *Estimated Temporary and Permanent Habitat Impacts, by Category, for Facility with Proposed Changes*, the proposed Carty Solar Farm and its supporting facilities would temporarily disturb approximately 6.39, 7.66 and 90.57 acres of Category 2, 3 and 4 habitat, respectively, resulting in temporary and temporal habitat impacts.⁴⁵ The proposed Carty Solar Farm and its supporting facilities would permanently disturb approximately 259.32, 42.84 and 18.79 acres of Category 2, 3 and 4 habitat, respectively.⁴⁶

Table 5: Estimated Temporary and Permanent Habitat Impacts, by Category, for Facility, with Proposed Changes

Habitat Category	Temporary Impacts ¹	Permanent Impact ²	Calculated Mitigation Area (Temporal and Permanent Impacts) ^{1,2}
Acres			
Facility, as Approved/Operating: Unit 1 and Supporting Facilities³			
Category 4			
Total Area =	55.40	45.00	72.75
Proposed Changes: Carty Solar Farm and Supporting Facilities⁴			

⁴⁴ Temporal loss refers to loss of habitat function and values from the time an impact occurs to the time when the restored habitat provides a pre-impact level of habitat function. Habitat subtypes identified within the site boundary, based on pre-construction estimates, including sagebrush steppe and broom snakeweed shrublands are reasonably expected to require a longer restoration timeframe (5+ years) and therefore would be expected to result in temporal loss requiring compensatory mitigation beyond the certificate holder's revegetation obligation.

⁴⁵ While temporal loss applies to habitat subtypes expected to require a longer restoration timeframe, and therefore would apply to impacted sagebrush steppe but not grasslands, the certificate holder did not delineate between habitat subtypes to be temporarily impacted and provides mitigation for temporal loss for Category 2, 3 and 4 regardless of habitat subtype.

⁴⁶ See Revised Table P-3, provided in Attachment B of this order.

Table 5: Estimated Temporary and Permanent Habitat Impacts, by Category, for Facility, with Proposed Changes

Habitat Category	Temporary Impacts ¹	Permanent Impact ²	Calculated Mitigation Area (Temporal and Permanent Impacts) ^{1,2}
	Acres		
Category 2	6.39	259.32	525.03
Category 3	7.66	42.84	46.67
Category 4	90.57	18.79	64.08
Category 6	2.81	0.19	0.00
Total Area =	107.43	321.14	635.78
Estimated Size of Habitat Mitigation Area Summary			
Size of Habitat Mitigation Area for Facility, as Approved/Operating =			72.75
Size of Habitat Mitigation Area for Proposed Changes =			635.78
Size of Habitat Mitigation Area for Facility, with Proposed Changes =			708.53
<p>Notes:</p> <p>In all cases impacts in a given area would only be mitigated once.</p> <ol style="list-style-type: none"> 1. Temporal impact mitigation is based on a 1:1 ratio for Category 2, a 0.5:1 acre ratio of Category 3 and 4 and zero for Category 6. 2. Permanent impact mitigation is based on a 2:1 ratio for Category 2, a 1:1 acre ratio of Category 3 and 4 and zero for Category 6. 3. Facility, as approved and operating, includes Unit 1 and its related or supporting facilities. 4. The proposed Carty Solar Farm and Supporting Facilities includes areas of disturbance within the proposed site boundary expansion areas, the potential route for the Carty Solar Farm interconnection transmission line that would require the most mitigation acres (Route 1), the Grassland Switchyard buildout area if interconnection Option 1 is selected (along with potential interconnection Route 1), and temporary construction laydown and parking areas. 			

Proposed Habitat Mitigation

The mitigation goal for Category 2 habitat is no net loss of either habitat quantity or quality and provision of a net benefit of habitat quantity or quality. To achieve this goal, impacts must be avoided or unavoidable impacts must be mitigated through “reliable in-kind, in-proximity” habitat mitigation to achieve no net loss; and a net benefit of habitat quantity or quality must be provided. The mitigation goal for Category 3 habitat is no net loss of either habitat quantity or quality. The goal is achieved by avoidance of impacts or by mitigation of unavoidable impacts through “reliable in-kind, in-proximity” habitat mitigation. The mitigation goal for Category 4 habitat, similar to the mitigation goal for Category 3 habitat impacts, is no net loss of either habitat quantity or quality. The Category 4 mitigation goal differs from the Category 3 mitigation goal in that achievement may be reached through avoidance of impacts or by

1 mitigation of unavoidable impacts through “reliable in-kind or out-of kind,” and “in- or off-of
2 proximity” habitat mitigation.⁴⁷

3
4 The certificate holder proposes to mitigate temporary habitat impacts through revegetation
5 and noxious weed control, in accordance with the draft amended Revegetation and Weed
6 Control Plan provided in Attachment E of this order. The draft amended plan includes
7 substantive changes from the version of the plan as approved for implementation during
8 construction and operation of Unit 1 and its supporting facilities. Substantive changes, based
9 upon review by the Department in consultation with ODFW, include the following additional
10 pre-construction requirements: pre-construction agency consultation to discuss pre-
11 disturbance conditions and adequacy of revegetation measures; identify monitoring and
12 reference sites within areas of distinct habitat; and, conduct a pre-disturbance vegetation and
13 weed survey of the selected monitoring and reference sites. The draft amended plan also
14 includes revised success criteria, as recommended by ODFW as better suited in the evaluation
15 of successful revegetation of temporarily disturbed habitat. Based on the draft amended
16 Revegetation and Weed Control Plan provided as Attachment E of this order, the Department
17 recommends the Council find that the certificate holder would meet the habitat mitigation
18 goals for temporary habitat impacts.

19
20 Council previously imposed Condition 5.5 requiring that the certificate holder, during
21 construction and operation, implement a Revegetation and Weed Control Plan, consult with
22 county weed control supervisors, and comply with county weed control ordinance provisions.
23 Because this amendment request includes removal of previously approved but not constructed
24 facility components that would have been located in Gilliam County, the Department
25 recommends Council amend Condition 5.5 removing references to Gilliam County as follows:

26
27 **Condition 5.5, as amended:** During construction and operation of the facility, the certificate
28 holder must implement a revegetation and weed control plan. The certificate holder must
29 comply with the applicable provisions of the Morrow County ~~and Gilliam County~~ Weed
30 Control Ordinances, as determined by the Morrow County Weed Control Supervisor, ~~and~~
31 ~~Gilliam County Weed Officer, respectively.~~ Prior to beginning construction the certificate
32 holder must consult with the Morrow County Weed Control Supervisor ~~and the Gilliam~~
33 ~~County Weed Control Officer~~ and obtain approval of a Revegetation and Noxious Weed
34 Control Plan. The final Revegetation and Noxious Weed Control Plan must be submitted to
35 the Department of Energy, based upon the draft amended plan provided in Attachment E of
36 the Final Order on Amendment 1, for approval prior to the start of construction.

37 [Final Order IV.D.2.6] [AMD1]

38
39 The certificate holder proposes to mitigate temporal (i.e. loss of habitat function and values
40 from the time an impact occurs to the time when the restored habitat provides a pre-impact

Commented [A6]: Edit is not reflected in the redline site certificate.

⁴⁷ OAR 635-415-0025(5)(b)
Carty Generating Station
Proposed Order on Request for Amendment 1
November 2018

1 level of habitat function) and permanent habitat impacts in the form of a permanent
2 conservation easement on a habitat mitigation area (HMA) in-proximity to the proposed
3 amended site boundary, which contains similar habitat quality and quantity as the habitat to be
4 impacted. Specifically, for temporal habitat impacts, the certificate holder proposes to include
5 in its HMA 1 acre for every 1 acre of Category 2 habitat temporarily disturbed (a 1:1 ratio), and
6 0.5 acres for every 1 acre of Category 3 and 4 habitat temporarily disturbed (a 0.5:1 ratio).
7 Based on this proposed methodology, the HMA would include 6.4, 3.8, and 45.2 acres, or
8 approximately 55.5 acres, of Category 2, 3 and 4 habitat, respectively, as mitigation for
9 temporal habitat loss.

10
11 The certificate holder proposes to include in its HMA 2 acres for every 1 acre of Category 2
12 habitat permanently impacted (a 2:1 ratio to provide no net loss and a net benefit of habitat
13 ~~quality~~quantity). The certificate holder proposes to mitigate impacts to Categories 3 and 4
14 habitat by including 1 acre for every 1 acre permanently impacted within its HMA (a 1:1 ratio to
15 provide no net loss). Based on this proposed methodology, the HMA would include 518.6, 42.8,
16 and 18.8 acres, or approximately 580.3 acres, of Category 2, 3 and 4 habitat, respectively, as
17 mitigation for permanent habitat loss. In total, to mitigate temporal and permanent habitat
18 impacts from construction and operation of the proposed Carty Solar Farm and its supporting
19 facilities, the certificate holder requires an HMA containing 635 total acres. Within the 635
20 acres, the site or sites must include approximately: 525 acres of Category 2 or better habitat; 47
21 acres of Category 3 or better habitat; and 64 acres of Category 4 or better habitat, ~~or 101 acres~~
22 ~~of Category 3 or better.~~

23
24 In RFA1, the certificate holder describes that the HMA would be located within a portion of the
25 PGE Multi-Species Candidate Conservation Agreement with Assurances (MSCCAA) Conservation
26 Area. The MSCCAA is a 25-year voluntary conservation agreement between Threemile Canyon
27 Farms, PGE, TNC, ODFW and USFWS which includes over 23,000 acres consisting primarily of
28 shrub-steppe habitat. The HMA for the previously approved and operating facility ~~as~~
29 presented in Figure of the draft amended WHMMP, see last page of Attachment D) includes 78-
30 acres adjacent to PGE's MSCCAA Conservation Area, located northeast of PGE's adjacent
31 Boardman Coal Plant. The HMA for the proposed Carty Solar Farm and its supporting facilities
32 would be located within PGE's MSCCAA Conservation Area, and would border the HMA
33 established for the facility, as approved and operating ~~as presented in Figure of the draft~~
34 ~~amended WHMMP, see last page of Attachment D). The certificate holder states that while PGE
35 has voluntarily committed to protecting an 880-acre area as part of the MSCCAA, the area
36 proposed as the HMA for the proposed Carty Solar Farm and its supporting facilities is not
37 protected by a conservation easement. In other words, the proposed HMA for the Carty Solar
38 Farm and its supporting facilities is not already being used as mitigation for other facility
39 impacts – an easement would be secured, as required per Condition 10.2, obligating that area
40 to be used as a habitat mitigation area for the impacts associated with construction and
41 operation of the components requested for approval in the amendment request.~~

42
43 As presented in Figure 1 of the draft amended WHMMP (see Attachment D), the certificate
44 holder provided a habitat assessment of the proposed HMA; however, the quantity of available

habitat category and subtype within the proposed HMA was not provided. The certificate holder, though, describes that vegetation within the proposed HMA includes: Sandberg's bluegrass (*Poa secunda*); bluebunch wheatgrass (*Pseudoroegneria spicata*); cheatgrass; intermittent areas of needle-and-thread grass (*Hesperostipa comata*); occasional green rabbitbrush (*Chrysothamnus viscidiflorus*); gray rabbitbrush (*Ericameria nauseaosa*); big sagebrush, fiddleneck (*Amsinckia menziesii*); yarrow (*Achillea millefolium*), and isolated junipers. Because the proposed HMA is within an existing conservation area, and includes the vegetation similar to vegetation impacted, the Department recommends Council consider that that proposed HMA would satisfy ODFW's habitat mitigation goals and Council's Fish and Wildlife Habitat standard. However, the Department recommends Council amend Condition 10.2 requiring that the certificate holder, prior to construction, provide a habitat assessment including habitat (in acres) by habitat category and subtype of the proposed HMA along with the easement. This condition amendment is recommended to allow the Department, in consultation with ODFW, the opportunity to evaluate habitat changes over time within the HMA and provide informed recommendations on future enhancement action or amendments of the WHMMP. The Department recommends Council amend Condition 10.2 as follows:

Condition 10.2, as amended: The certificate holder shall:

- a. Prior to construction, acquire the legal right to create, enhance, maintain and protect a habitat mitigation area as long as the facility is in operation and the site certificate is in effect by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the Department.
- b. Prior to construction of the Carty Solar Farm and its supporting facilities, the certificate holder shall provide a habitat assessment of the habitat mitigation area, based on a protocol approved by the Department in consultation with ODFW, which includes methodology, habitat map, and available acres by habitat category and subtype in tabular format.
- c. During operations, within the habitat mitigation area (HMA) the certificate holder shall improve and monitor the habitat quality within the habitat mitigation area, in accordance with the Wildlife and Habitat Monitoring and Mitigation Plan approved by the Department per Condition 10.1.

[Final Order IV.H.2.2] [AMD1]

In addition to proposing compensatory mitigation, as specified in the draft amended WHMMP (see Attachment D of this order), the certificate holder proposes to implement and monitor specific enhancement actions within the HMA. Habitat enhancement actions are proposed to further satisfy the Category 2 "net-benefit" mitigation goal including weed monitoring and control; seeding and planting sagebrush and juniper (e.g. planting 450 plants per acre); implementation of a fire control plan; wildfire suppression; and grazing restriction. Council previously imposed Condition 10.1 requiring that the certificate holder, prior to construction, prepare and submit a final WHMMP, as approved by the Department. The certificate holder would then be required to comply with the final approved plan. The Department recommends Council amend Condition 10.1 with similar requirements but specific

Commented [A7]: Edit not reflected in the redline site certificate.

1 to recommended changes incorporated into the draft amended plan provided in Attachment D
2 of this order. The draft amended plans includes administrative changes that apply to habitat
3 mitigation requirements. Finalization of the plan is limited to an assessment of temporary and
4 permanent habitat impacts, based on final design and any potential changes in habitat quality
5 or quantity since the 2016 evaluation.
6

7 **Condition 10.1, as amended:** Prior to construction, the certificate holder shall:

- 8 i. Consult with the Oregon Department of Fish and Wildlife and prepare a final
9 Wildlife and Habitat Monitoring Mitigation Plan and submit the plan to the
10 Department for review and approval. The certificate holder must conduct all wildlife
11 and habitat monitoring as described in the approved Wildlife and Habitat
12 Monitoring and Mitigation Plan, as amended from time to time.
13 [Final Order IV.H.2.1] [Mandatory Condition OAR 345-027-0020(6)]
14 ii. Submit for review and approval by the Department, in consultation with the Oregon
15 Department of Fish and Wildlife, a final Wildlife and Habitat Monitoring Mitigation
16 Plan based upon the mitigation methodology and enhancement actions in the draft
17 amended plan provided as Attachment D of the Final Order on Amendment 1. The
18 certificate holder must conduct all wildlife and habitat monitoring as described in
19 the approved Wildlife and Habitat Monitoring and Mitigation Plan, as amended from
20 time to time.
21 [AMD1] [OAR 345-025-0016]
22

23 Council previously imposed Condition 10.7 requiring that the certificate holder, prior to
24 construction, conduct a pre-construction investigation for sensitive plant and wildlife species
25 within areas of disturbance not previously surveyed. Based on the 2016 evaluation conducted
26 to inform the amendment request, and based on the certificate holder's reliance on ten survey
27 plots to inform its habitat assessment and the fact that habitats can change over time from fire
28 or other environmental events, the Department recommends Council amend Condition 10.7.
29 The amendments are imposed under Roman numeral "ii" of the condition, requiring that the
30 certificate holder, in its evaluation of final design habitat impacts, conduct a pre-construction
31 habitat assessment in all areas to be disturbed during construction and operation of the
32 proposed Carty Solar Farm and its supporting facilities.
33

34 **Condition 10.7, as amended:** The certificate holder must:

- 35 i. Implement measures to avoid or minimize temporary and permanent impacts
36 to high quality native habitat and to retain habitat cover in the general
37 landscape, where practicable...⁴⁸

⁴⁸ As described in Section II.C. *Recommended Amended Site Certificate Condition Format*, conditions recommended to be amended are presented in a format where the original condition language is maintained under Roman

- 1 ii. Implement measures to avoid or minimize temporary and permanent impacts to high
2 quality native habitat and to retain habitat cover in the general landscape, where
3 practicable.
4 a. The certificate holder shall not construct any facility components within areas of
5 Category 1 habitat and shall avoid temporary disturbance of Category 1 habitat.
6 b. Before beginning construction, the certificate holder shall provide to the
7 Department a map showing the final design locations of all components of the
8 facility and the areas that would be disturbed during construction and identifying
9 the survey areas for all plant and wildlife surveys conducted prior to construction.
10 The certificate holder shall use a qualified professional biologist to conduct a pre-
11 construction habitat assessment of all areas that would be disturbed during
12 construction. The certificate holder shall provide a written report of the habitat
13 assessment to the Department and to the Oregon Department of Fish and
14 Wildlife. Based on consultation with the Department and ODFW, the certificate
15 holder shall implement appropriate measures to avoid impacts to any Category 1
16 habitat, to any State-listed threatened or endangered plant or wildlife species,
17 and to any State Candidate plant species.
18 [AMD1]
19

20 *State Sensitive Species within Analysis Area*

21
22 The certificate holder conducted a desktop review to identify State Sensitive species with the
23 potential to occur within the analysis area based on species range and existing habitat. The
24 desktop review evaluated ODFW's 2017 Sensitive Species List, the Oregon Biodiversity
25 Information Center (ORBIC 2016), eBird (2017), NatureServe (2017), Oregon Wildlife Explorer
26 (OSU Libraries and Press and Institute for Natural Resources 2014), Birds of Oregon (Marshall et
27 al. 2006), and Birds of North America (Rodewald 2015). Based on this desktop review, the
28 certificate holder identified suitable habitat within the analysis area for: 13 State-sensitive
29 species (including 2 reptiles, 9 birds, and 2 bat species). Of these State-sensitive species, only 1 –
30 the Northern Sagebrush lizard was observed during 2016 surveys.
31

32 *Potential Impacts to State Sensitive Species*

33
34 Potential impacts to State Sensitive species during construction and operation of the proposed
35 Carty Solar Farm and its supporting facilities include sensory disturbance (i.e., noise, vibration,
36 and visual) from the presence of personnel, vehicles, and equipment during construction,
37 operation, and retirement; as well as permanent impacts from habitat loss/modification;
38 collision with equipment and facilities; increased predation risk from transmission lines used for
39 perching, and transmission line electrocution and collision. The certificate holder also describes

numeral "i" of the condition; amended condition language that would apply to the proposed facility components are presented in Roman number "ii" of the condition. Therefore, for recommended amended conditions, for brevity, original condition language under "i" that would not be amended is not presented in the order but is presented in Attachment A.

1 potential indirect impacts to the Carty Reservoir, a riparian habitat where fish species and raptor
2 nests were identified, from construction-related runoff and sediment.

3
4 The certificate holder proposes to minimize impacts to avian species through compliance with
5 its Avian Protection Plan, including adhering to specific design standards, implementation of
6 avian mortality and nest management procedures, and compliance with internal and agency
7 reporting procedures. The certificate holder also agrees to implement a post-construction Avian
8 and Bat Mortality Monitoring program. The duration of the program aligns with ODFW's
9 recommendation to include a full year of post construction monitoring to support future
10 evaluation of impact correlation. Within the monitoring year, the mortality monitoring program
11 would include 21 surveys designed to estimate bird and bat fatality rates associated with solar
12 panel collision. The requirements of the Avian Protection Plan and Avian and Bat Mortality
13 Monitoring Program are included in the draft amended WHMMP, as described above.
14 Council previously imposed conditions under the Fish and Wildlife Habitat standard that would
15 apply during construction and operation of the proposed Carty Solar Farm and its supporting
16 facilities requiring that the certificate holder implement measures and practices to avoid and
17 minimize potential impacts to State Sensitive species. Previously imposed conditions are
18 summarized below:

- 19
20
- 21 • Condition 10.8 requires that, prior to and during each year of construction, the
22 certificate holder conduct raptor nest surveys to confirm presence of active nests, and if
23 identified, impose a buffer distance from the nest to the location of construction
24 activities during sensitive nesting/breeding seasons
 - 25 • Condition 10.9 requires that, during construction, the certificate holder prepare
26 constraint maps demonstrating approved and surveyed areas where construction
27 activities are allowed, and sensitive species locations to avoid during construction; and
28 implement measures to avoid disturbance outside of approved and surveyed
29 construction areas
 - 30 • Condition 10.10 requires that, during transmission line design and construction, the
31 certificate holder adhere to current suggested practices for avian protection on power
32 lines as published by the Avian Power Line Interaction Committee
 - 33 • Condition 10.11 requires that, during operation, the certificate holder conduct long-
34 term sensitive raptor nest monitoring
 - 35 • Condition 10.12 requires that, during construction and operation, the certificate holder
36 provide its personnel environmental training on presence of sensitive species,
37 precautions to avoid injuring or destroying habitat and species, permit requirements,
38 exclusion areas, and other environmental issues
 - 39 • Condition 10.13 requires that, during construction, the certificate holder not place
40 structures within, and avoid new impacts to, Sixmile Canyon
 - 41 • Condition 10.15 requires that, during construction and operation, the certificate holder
42 impose a 20 mile per hour speed limit and a 10 mile per hour speed limit during the
43 active Washington ground squirrel season (February 1 to June 30), during vehicular use
of internal facility roads

Additional conditions imposed under the Council's Soil Protection and Threatened and Endangered Species standards, as described in Section III.D., *Soil Protection* and III.I. *Threatened and Endangered Species* of this order, would also minimize potential impacts to State Sensitive species during construction and operation of the proposed Carty Solar Farm and its supporting facilities.

In the amendment request, the certificate holder requests to amend Condition 10.8 to remove reference to the Horn Butte Area of Critical Concern (ACEC), update the sensitive period for Ferruginous hawk, and add bald eagle to the list of species for which the condition would apply. The reference in Condition 10.8 to Horn Butte ACEC resulted from its proximity to the 18-mile 500 kV transmission line, that was previously approved but not constructed by the established deadline, and therefore is no longer an approved facility component. The sensitive period for Ferruginous hawk and bald eagle, as presented in the amended condition below, is consistent with current ODFW recommendations.⁴⁹ Because the 18-mile 500 kV transmission line was not constructed by the established deadline and is no longer part of the approved facility, the Department recommends Council amend the condition as requested by the certificate holder, as follows:

Condition 10.8, as amended: During construction, the certificate holder shall avoid all construction activities within one mile of golden eagle nests, ~~0.5 miles of the Horn Butte Area of Critical Environmental Concern (ACEC)~~, and 0.6 miles of ferruginous hawk nests, and 1,300 feet of other potentially active sensitive raptor species nest sites for the following species during the sensitive period, as provided in this condition:

<u>Species</u>	<u>Sensitive Period</u>	<u>Early Release Date</u>
Swainson's hawk	April 1 to August 15	May 31
Ferruginous hawk	March 15 to July August 15	May 31
<u>Bald eagle</u>	<u>January 1 to August 15</u>	<u>May 31</u>
Golden eagle	January 1 to July 15	May 31
Burrowing owl	April 1 to August 15	July 15
Long-billed curlew	March 8 to June 15	May 31

During all years in which construction occurs, the certificate holder shall use a protocol approved by the Oregon Department of Fish and Wildlife (ODFW) to determine whether there are any active nests of these species within 1,300 feet ~~of~~ ~~0.5 miles for the Horn Butte ACEC~~ of any areas that would be disturbed during

⁴⁹ The Department acknowledges that the Bald eagle is not a State Sensitive species; however, because the certificate holder requests the condition amendment, the Department recommends Council amend the condition to impose the buffer distance during sensitive Bald eagle nesting/breeding season as a certificate holder representation and binding commitment.

1 construction. Surveys shall be extended to one mile for golden eagle nests and 0.6
2 miles for ferruginous hawk nests. This construction buffer distance may be decreased
3 with approval by ODFW and USFWS depending on the intensity of construction
4 activity and whether there is an adequate physical barrier (i.e., vegetation,
5 topography, etc.) between the nest site and the construction impacts or if
6 consultation determines a lesser distance is feasible and appropriate. The certificate
7 holder shall begin monitoring potential nest sites by the beginning of the sensitive
8 period, as listed above, and shall continue monitoring until at least May 31 (July 15 for
9 golden eagle nests) to determine whether any potentially-active nest sites become
10 active during the sensitive period.

11
12 If any nest site is determined to be unoccupied by the early release date, then
13 unrestricted construction activities may occur within 0.6 miles (~~0.5 miles for the Horn~~
14 ~~Butte ACEC and~~ one mile for golden eagle nests) of the nest site after that date. If a
15 nest is occupied by any of these species after the beginning of the sensitive period,
16 the certificate holder will flag the boundaries of a 1,300 foot (or 0.6 miles for
17 ferruginous hawk nests, ~~0.5 miles for the Horn Butte ACEC~~, or one mile for golden
18 eagle nests) buffer area around the nest site and shall instruct construction personnel
19 to avoid disturbance of the buffer area. During the sensitive period, the certificate
20 holder shall not engage in high-impact construction activities (activities that involve
21 blasting, grading or other major ground disturbance) within the buffer area. The
22 certificate holder shall restrict construction traffic within the buffer, except on public
23 roads, to vehicles essential to the limited construction activities allowed within the
24 buffer. If a golden eagle nest is identified, construction and maintenance activities
25 between February 1 and July 15 (courtship and nesting period) will be avoided within
26 one mile of the active nest (or 0.5 miles if the active nest is not in line-of-sight of
27 activities).

28
29 The certificate holder must use a qualified independent professional biologist to
30 observe the active nest sites during the sensitive period for signs of disturbance and to
31 notify the Department of any non-compliance with this condition. If the biologist
32 observes nest site abandonment or other adverse impact to nesting activity, the
33 certificate holder shall implement appropriate mitigation, in consultation with ODFW
34 and subject to the approval of the Department, unless the adverse impact is clearly
35 shown to have a cause other than construction activity.

36
37 The certificate holder may begin or resume construction activities within the buffer
38 area before the ending day of the sensitive period with the approval of ODFW, after
39 the young are fledged. The certificate holder shall use a protocol approved by ODFW
40 to determine when the young are fledged (the young are independent of the core nest
41 site).

42 [Final Order IV.H.2.10] [AMD1]
43

1 The certificate holder requests to administratively amend Condition 10.3, 10.4, 10.11, 10.13,
2 10.14, as presented in Attachment 1 of this order. Based on the administrative nature of the
3 condition amendments, the proposed changes are not presented in this section. The
4 Department recommends Council find that the requested condition amendments would not
5 substantively change the intent of the previously imposed conditions and amend the conditions
6 as requested.

7 **Conclusions of Law**

9 Based on the foregoing findings of fact and conclusions, and subject to compliance with existing
10 and recommended amended site certificate conditions, the Department recommends the
11 Council find that the facility, with proposed changes, would comply with the Council's Fish and
12 Wildlife Habitat standard.

13 **III.I. Threatened and Endangered Species: OAR 345-022-0070**

14
15 *To issue a site certificate, the Council, after consultation with appropriate state agencies,*
16 *must find that:*

17
18 *(1) For plant species that the Oregon Department of Agriculture has listed as*
19 *threatened or endangered under ORS 564.105(2), the design, construction and*
20 *operation of the proposed facility, taking into account mitigation:*

21
22 *(a) Are consistent with the protection and conservation program, if any, that the*
23 *Oregon Department of Agriculture has adopted under ORS 564.105(3); or*

24
25 *(b) If the Oregon Department of Agriculture has not adopted a protection and*
26 *conservation program, are not likely to cause a significant reduction in the*
27 *likelihood of survival or recovery of the species; and*

28
29 *(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed as*
30 *threatened or endangered under ORS 496.172(2), the design, construction and*
31 *operation of the proposed facility, taking into account mitigation, are not likely to*
32 *cause a significant reduction in the likelihood of survival or recovery of the species.*

33 **Findings of Fact**

34
35 The Threatened and Endangered Species standard requires the Council to find that the design,
36 construction, and operation of the facility, with proposed changes, are not likely to cause a
37 significant reduction in the likelihood of survival or recovery of a fish, wildlife, or plant species
38 listed as threatened or endangered by Oregon Department of Fish and Wildlife (ODFW) or
39 Oregon Department of Agriculture (ODA). For threatened and endangered plant species, the
40 Council must also find that the facility, with proposed changes, is consistent with an adopted
41 protection and conservation program from ODA. Threatened and endangered species are those
42 listed under ORS 564.105(2) for plant species and ORS 496.172(2) for fish and wildlife species.

1 For the purposes of this standard, threatened and endangered species are those identified as
2 such by either the Oregon Department of Agriculture or the Oregon Fish and Wildlife
3 Commission.⁵⁰

4
5 The analysis area for threatened or endangered plant and wildlife species, as established in the
6 project order, is the area within and extending five miles from the site boundary, as amended.⁵¹

7
8 *Potential Impacts to Identified Threatened and Endangered Species*

9
10 *Wildlife*

11
12 In order to identify threatened and endangered wildlife species that might occur within the
13 analysis area, the certificate holder conducted a literature review and field surveys. The
14 literature review for threatened and endangered wildlife species evaluated U.S. Fish and
15 Wildlife Service's Information for Planning and Conservation (IPaC), Oregon Biodiversity
16 Information Center (ORBIC 2016) database, ODFW's 2017 list of "Threatened, Endangered, and
17 Candidate Fish and Wildlife Species," and the Oregon Wildlife Explorer (Oregon State University
18 Libraries and Press and Institute for Natural Resources 2014). Based on results of the literature
19 review, one state listed threatened wildlife species - Washington ground squirrel (WGS) – was
20 identified as having the potential to occur within the analysis area. Therefore, the certificate
21 holder's consultant, E&E, conducted two rounds of protocol-level WGS surveys during the
22 weeks of March 7 and April 18, 2016.

23
24 The survey area consisted of all suitable WGS habitat within the proposed amended site
25 boundary areas and areas within the previously approved site boundary where proposed
26 related or supporting facilities would be located (i.e. grassland and shrub steppe habitats), plus
27 an additional 1,000 feet beyond such areas.⁵² During the 2016 protocol-level surveys, active
28 WGS colonies were not observed; however, signs of inactive colonies were observed within the
29 survey area but not within the proposed amended site boundary area. During separate survey
30 efforts conducted by the certificate holder in 2017, active WGS colonies were detected within
31 the proposed amended site boundary area. The certificate holder asserts, though, that while
32 active colonies were detected within the proposed amended site boundary area, none were
33 detected within the proposed disturbance areas of the Carty Solar Farm or its supporting
34 facilities.

35
36 WGS habitat is Category 1 habitat and includes the area within a 785-foot buffer of an active
37 colony. ODFW's mitigation goal for Category 1 habitat requires avoidance of all impacts.

⁵⁰ Although the Council's standard does not address federally-listed threatened or endangered species, certificate holders must comply with all applicable federal laws, including laws protecting those species, independent of the site certificate.

⁵¹ CGSNOIDoc17 Final Carty Generating Station Project Order, p.18, 2009-11-03.

⁵² CGSAMD1 Exhibit P, Appendix P-1, p.5.

1 Therefore, the certificate holder is restricted from directly impacting WGS habitat. The
2 previously approved site boundary and analysis area similarly identified suitable WGS habitat,
3 and as such, Council previously imposed numerous conditions to avoid and minimize potential
4 direct and indirect impacts to Category 1 WGS habitat and to WGS, as summarized below.
5 These conditions remain applicable to the construction and operation of the solar farm and
6 supporting facility components. Potential indirect impacts from construction and operation of
7 the proposed Carty Solar Farm and its supporting facilities includes loss of suitable, but
8 currently unoccupied, WGS habitat; increased predation risk from transmission lines providing
9 perch structures; and vehicular collision fatality.

- 11 • Condition 10.1, as amended, requires that the certificate holder, prior to construction,
12 receive approval from the Department in consultation with ODFW of a final WHMMP,
13 which includes HMA monitoring requirements. The proposed HMA, which the certificate
14 holder represents it will maintain as part of its mitigation approach, includes Category 1
15 and Category 2 habitat, ~~which the certificate holder represents it will maintain as part of~~
16 ~~its mitigation approach~~. The WHMMP also requires that the certificate holder comply
17 with its Avian Protection Plan, which includes design standards for installation of perch
18 guards and installation of alternative perch locations
- 19 • Condition 10.7, as amended, requires the certificate holder to avoid permanent and
20 temporary disturbance within Category 1 habitat
- 21 • Condition 10.14, as amended, requires that, prior to construction, the certificate holder
22 conduct WGS surveys in areas of suitable WGS habitat to identify, and mark with high-
23 visibility flagging or markers, boundaries of Category 1 WGS habitat to restrict
24 construction-related disturbance impacts
- 25 • Condition 10.15 requires that, during construction and operation, the certificate holder
26 impose a 20 mile per hour speed limit and a 10 mile per hour speed limit during the
27 active WGS season, during vehicular use of internal facility roads, to minimize risk from
28 vehicular collision fatality risk
- 29 • Condition 10.17 requires that, during construction, the certificate holder ensure
30 personnel and construction contractors receive environmental awareness training
31 related to WGS issues, including reporting procedures
- 32 • Condition 10.18, as amended, ~~requires that~~ allows the certificate holder to, during
33 ~~construction, the certificate~~ disc or till a minimum 800-foot buffer within the perimeter
34 of the site boundary to discourage WGS's from moving into planned construction areas
- 35 • Condition 10.20, as amended, requires that, at any time, the certificate holder
36 immediately report to ODFW ~~and USFWS presence of WGS burrow~~ if any new active
37 burrows are identified within 785 feet of the site boundary throughout the life of the
38 facility
- 39 • Condition 10.21, as amended, requires that, during operations, the certificate holder
40 conduct long-term WGS surveys within areas where known colonies were identified
41 within the site boundary and the HMA. The draft amended WHMMP (Condition 10.1)
42 establishes that long-term monitoring for the proposed Carty Solar Farm and its
43 supporting facilities would include surveys in operational year 1, 3 and 5 and then every

1 5-years for the life of the facility in years divisible by five, as approved, and with
2 proposed changes
3

4 The certificate holder requests to administratively amend Condition 10.18, 10.19, 10.20 and
5 10.21, as presented in Attachment 1 of this order. Based on the administrative nature of the
6 condition amendments, the proposed changes are not presented in this section. The
7 Department recommends Council find that the requested condition amendments would not
8 substantively change the intent of the previously imposed conditions and amend the conditions
9 as requested.
10

11 The Department recommends Council find that based upon compliance with previously
12 imposed and recommended amended conditions, the facility with proposed changes would not
13 be likely to cause a significant reduction in the likelihood of survival of any wildlife species listed
14 as threatened or endangered.
15

16 *Plants* 17

18 In order to identify threatened and endangered plant species that might occur within the
19 analysis area, the certificate holder conducted a literature review and field survey. The
20 literature review for threatened and endangered plant species evaluated Oregon Department
21 of Agriculture's 2016 threatened, endangered, and candidate plants list and the ranges and
22 habitat requirements for these species (NatureServe Explorer 2015; ODA 2016; ORBIC 2016;
23 USDA 2016). Based on results of the literature review, one ODA-listed plant species –
24 Lawrence's milkvetch – was identified as having the potential to occur with the analysis area.
25 The certificate holder's consultant, E&E, conducted habitat/vegetation community surveys
26 within the proposed Carty Solar Farm area in 2016 that were used to support the identification
27 of potential presence of Lawrence's milkvetch.⁵³ During this field survey, evidence of the
28 occurrence of the plant species was not found. The certificate holder describes that the current
29 habitat condition within the amended site boundary does not include bluebunch wheatgrass,
30 Lawrence's milkvetch preferred habitat. In a comment on RFA1, however, ODA states that the
31 site boundary is within the known geographic range of Lawrence's milkvetch.
32

33 The certificate holder represents that pre-construction WGS surveys would include a search for
34 Lawrence's milkvetch, as a secondary objective, if the timing of the survey coincides with the
35 appropriate survey period for the plant species (May through August). The certificate holder
36 also describes that if Lawrence's milkvetch is identified during pre-construction surveys, the
37 certificate holder would report its findings to ODA and develop appropriate mitigation for the
38 species. The certificate holder argues that because surveys conducted within the proposed
39 amended site boundary area have shown no detection of the plant species to date and based
40 on the general absence of preferred habitats for this subspecies in the amended site boundary

⁵³ CGSAMD1 Exhibit P, Appendix P-1, p.5.
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1 area, direct and indirect impacts are unlikely. However, based on ODA's comments and because
2 targeted Lawrence's milkvetch surveys have not been conducted within the proposed amended
3 site boundary area, the Department recommends Council amend Condition 10.14, to require
4 the certificate holder to conduct a pre-construction survey targeted for Lawrence's milkvetch.

5 Because the survey area for WGS is limited to WGS suitable habitat, the Department
6 recommends that if the surveys are conducted simultaneously, the surveys meet protocol
7 requirements for both species, and not limited to secondary observations achieved during the
8 WGS surveys. The Department recommends Condition 10.14 be amended as follows:
9

10 **Condition 10.14, as amended:** Prior to construction, the certificate holder shall
11 conduct surveys for Washington ground squirrel (WGS) and Lawrence's milkvetch.

Commented [A8]: Edit not reflected in the redline site certificate.

12
13 1. The certificate holder shall determine the boundaries of Category 1 Washington
14 ground squirrel (WGS) habitat based on the locations where the squirrels were
15 found to be active in the most recent WGS surveys prior to the beginning of
16 construction in habitat suitable for WGS foraging or burrow establishment
17 ("suitable habitat"). The certificate holder shall use a qualified professional
18 biologist who has experience in detection of WGS to conduct surveys within the
19 site boundary using appropriate search protocols. Except as provided in (a), the
20 biologist shall conduct surveys in the active squirrel season (February 1 to June 30)
21 ~~in 2012 and in the active squirrel seasons~~ at least once every three years until the
22 beginning of construction in suitable habitat. The biologist shall survey all areas of
23 suitable habitat where permanent facility components would be located or where
24 construction disturbance could occur. The certificate holder shall provide written
25 reports of the surveys to the Department and to the Oregon Department of Fish
26 and Wildlife (ODFW) and shall identify the boundaries of Category 1 WGS habitat.
27 During each year in which construction will occur, the boundaries of Category 1
28 WGS habitat shall be marked by the biologist with high-visibility flagging or
29 markers. The certificate holder shall not begin construction until the identified
30 boundaries of Category 1 WGS habitat have been approved by the Department.
31 Category 1 WGS habitat includes the areas described in (b) and (c) below.

- 32 a. The certificate holder may omit the WGS survey in any year if the certificate
33 holder avoids all permanent and temporary disturbance within suitable habitat
34 until a WGS survey has been completed in the following year and the
35 boundaries of Category 1 habitat have been determined and approved based
36 on that survey.
- 37 b. Category 1 WGS habitat includes the area within the perimeter of multiple
38 active WGS burrows plus a 785-foot buffer, excluding areas of habitat types
39 not suitable for WGS foraging or burrow establishment. If the multiple-burrow
40 area was active in a prior survey year, and active burrows are still present, then
41 Category 1 habitat includes the largest extent of the active burrow area ever
42 recorded (in the current or any prior-year survey), plus a 785-foot buffer. If no
43 active burrows are still present, then it is no longer Category 1 habitat for
44 WGS.

c. Category 1 WGS habitat includes the area containing single active burrow detections plus a 785-foot buffer, excluding areas of habitat types not suitable for WGS foraging or burrow establishment. Category 1 habitat does not include single-burrow areas that were found active in a prior survey year but that are not active in the current survey year.

2. The certificate holder shall use a qualified professional biologist who has experience in detection of Lawrence's milkvetch to conduct plant surveys within the site boundary, using appropriate survey protocols, during the blooming season (May through August).

a. If the species is found to occur, the certificate holder must install protection flagging around the plant population and avoid any ground disturbance within this zone; and its location shall be presented on construction constraint maps showing restricted work areas.

[Final Order IV.I.2.1; AMD1]

Commented [A9]: Edit not reflected in the redline site certificate.

Conclusions of Law

Based on the foregoing findings of fact and conclusions, and subject to compliance with the existing and recommended amended conditions, the Department recommends Council find that the facility, with proposed changes complies with the Council's Threatened and Endangered Species standard.

III.J. Scenic Resources: 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 and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to scenic resources and values identified as significant or important in local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area described in the project order.

Findings of Fact

OAR 345-022-0080 requires the Council to determine that the design, construction and operation of the proposed facility are not likely to have a "significant adverse impact" to any significant or important scenic resources and values in the analysis area. In applying the standard set forth in OAR 345-022-0080(1), the Council assesses the visual impacts of facility structures on significant or important scenic resources described in "local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area described in the project order." For purposes of this rule, the Department considers "local land use plans" includes applicable state land use and management plans.

The analysis area for the Scenic Resources standard is the area within and extending 10-miles from the amended site boundary.

1 Applicable Land Use Plans

2
3 The analysis area includes parts of two Oregon counties (Morrow and Gilliam), one Oregon
4 municipality (Boardman), land administered by the Oregon Department of Transportation
5 (ODOT), and land administered by the Bureau of Land Management and U.S. Fish & Wildlife
6 Service. The certificate holder evaluated the following land use and management plans to
7 determine whether scenic resources were identified as significant or important:
8

- 9
- 10 • Gilliam County Comprehensive Plan (Gilliam County 2017)
 - 11 • Morrow County Comprehensive Plan (Morrow County 2013)
 - 12 • Bureau of Land Management John Day Basin Resource Management Plan (BLM 2015)
 - 13 • Umatilla National Wildlife Refuge Comprehensive Conservation Plan (USFWS 2008)
 - 14 • Oregon Department of Transportation 1999 Highway Plan (ODOT 2015)
 - 15 • City of Boardman's Comprehensive Plan
 - 16 • Columbia Basin Wildlife Area Management Plan (ODFW 2008)
 - 17 • Oregon Trail Comprehensive Management and Use Plan (U.S. National Park Service
18 1999)

19 Based on review of the above-referenced plans, the certificate holder identified Blue Mountain
20 Scenic Byway and a site and segment of the Oregon National Historic Trail (the Boardman
21 segment and Well Springs site) as potentially significant or important scenic resources within
22 the analysis area.
23

24 The Blue Mountain Scenic Byway is an approximately 130-mile designation along State Route
25 74 that traverses through the Blue Mountains of Northeastern Oregon, and was designated in
26 1997 as a "scenic byway" by Oregon Department of Transportation. At the closest point, the
27 Blue Mountain Scenic Byway is approximately 7 miles to the west of the proposed amended
28 site boundary. The Department is unaware of any management plan for the Blue Mountain
29 Scenic Byway that would direct or manage development with the specific intent to preserve
30 scenic resources or values along the 130-mile designated route. The US Forest Service has
31 developed an interpretive guide for the Blue Mountain Scenic Byway; this guide identifies
32 National Forest land along the Byway as a scenic corridor, however, the Carty Solar farm would
33 not be located in or near National Forest land along the Byway.
34

35 The Boardman segment and Well Springs site of the Oregon National Historic Trail are
36 designated by the National Trails System Act as a high-potential segment and high-potential
37 site. High-potential segments are those meeting a criteria of a "high quality recreation
38 experience in a portion of the route having greater than average scenic values or affording an
39 opportunity to vicariously share the experience of the users of a historic route." High-potential
40 sites are those meeting the criteria of "historic significance, the presence of visible historic
41 remnants, scenic quality, and relative freedom from intrusion." The Boardman segment is
42 located approximately 2 miles south of the proposed amended site boundary; the Well Springs
43 site is located approximately 4.2 miles southeast of the proposed amended site boundary.

Based on review of the referenced plans, the Department recommends Council find that the Blue Mountain Scenic Byway is not identified in a land use plan as a significant or important scenic resource, and further not specifically managed for its scenic qualities. Therefore, the Council does not need to make findings related to potential significant adverse impacts to this resource as it is not protected under Council's Scenic Resources standard. As noted above, "high potential segments" of the trail are considering those that may have "greater than average scenic values." However, the Boardman segment of the Oregon National Historic Trail and Well Springs site of the Oregon National Historic Trail do not have a specific management plan that manages for scenic resources or values and as such, the Council also does not need to make findings related to potential significant adverse impacts from the proposed amended facility to the resources as they are not protected under the Council's Scenic Resources standard. Nonetheless, due to uncertainty if the resources would be protected by the Council standard, the certificate holder provides an assessment of potential visual impacts of the proposed Carty Solar Farm and its supporting facilities to the identified scenic resources in the RFA, and the Department presents its analysis below.

Visual Impacts

Under the Scenic Resources standard, pursuant to OAR 345-021-0010(r)(C), potential visual impacts at identified resources from loss of vegetation or alteration of landscape and from facility structures or plumes during facility-related construction and operations are evaluated.

The proposed Carty Solar Farm and its supporting facilities would include solar modules with a maximum height of 10 feet; inverters with a maximum height of 11 feet; and, a 34.5 kV transmission line with 70-foot-tall wooden poles.

Loss of Vegetation

The proposed Carty Solar Farm and its supporting facilities would result in temporary and permanent vegetation loss. Temporary vegetation loss would be restored through the certificate holder's implementation of a final Revegetation and Weed Plan, to be reviewed and approved by the Department prior to construction, in accordance with Condition 5.5. Operation of the proposed Carty Solar Farm and its supporting facilities would result in permanent vegetation loss from the footprint of facility components. The Boardman Segment of the Oregon National Historic Trail is the closest of the resources identified to the proposed amended site boundary, at 2 miles. Based on this distance, visibility of temporary and permanent vegetation loss would not be expected.

Facility Structures

The proposed Carty Solar Farm and its supporting facilities would result in visible facility structures. To support its evaluation of potential visual impacts of the proposed Carty Solar Farm and its supporting facilities, the certificate holder completed a zone of visual influence

1 (ZVI) analysis.⁵⁴ A ZVI analysis identifies visibility based on topography but does not account for
2 screening from vegetation or structures.

3
4 Based on the ZVI analysis, as presented in Figure R-1, the proposed Carty Solar Farm and its
5 supporting facilities would not be visible from the Blue Mountain Scenic Byway nor Well Springs
6 site of the Oregon National Historic Trail, and therefore would not visually impact these
7 resources. The proposed Carty Solar Farm and its supporting facilities, however, would be
8 visible from a small portion of the Boardman segment of the Oregon National Historic Trail. The
9 certificate holder describes that the portion of the Boardman segment that would be visually
10 impacted is located within the Boardman Bombing range with restricted access, thereby
11 minimizing impacts because there are limited users that could be impacted by visibility of the
12 proposed components.

13 14 **Conclusion of Law**

15
16 Based on the foregoing findings, the Department recommends that the Council find that the
17 design, construction, and operation of the proposed Carty Solar Farm and its supporting
18 facilities would comply with the Council's Scenic Resources standard.

19 **III.K. Historic, Cultural, and Archaeological Resources: OAR 345-022-0090**

20
21 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the*
22 *Council must find that the construction and operation of the facility, taking into account*
23 *mitigation, are not likely to result in significant adverse impacts to:*

24
25 *(a) Historic, cultural or archaeological resources that have been listed on, or would*
26 *likely be listed on the National Register of Historic Places;*

27
28 *(b) For a facility on private land, archaeological objects, as defined in ORS*
29 *358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and*

30
31 *(c) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).*

32
33 *(2) The Council may issue a site certificate for a facility that would produce power from*
34 *wind, solar or geothermal energy without making the findings described in section (1).*
35 *However, the Council may apply the requirements of section (1) to impose conditions on*
36 *a site certificate issued for such a facility.*

37 38 **Findings of Fact**

39

⁵⁴ CGSAMD1. Request for Additional Information Responses. 2018-09-24.
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1 Section (1) of the Historic, Cultural and Archaeological Resources standard generally requires
2 the Council to find that a proposed facility or facility, with proposed changes, is not likely to
3 result in significant adverse impacts to identified historic, cultural, or archaeological resources.
4 Under Section (2), the Council may issue a site certificate for a solar power facility without
5 making findings of compliance with this section. However, the Council may impose site
6 certificate conditions based on the requirements of this standard.⁵⁵

7
8 The analysis area for the evaluation of potential impacts to identified historic, cultural or
9 archeological resources, as defined in the project order, is the area within the site boundary.

10
11 In 2016, PGE's cultural resource consultant Willamette Cultural Resources Associates, Ltd.
12 (WillametteCRA) conducted a records review of the Oregon State Historic Preservation Office
13 (SHPO) online database to identify previously recorded cultural resources within the analysis
14 area and its vicinity. The review also included regional and local environmental histories,
15 ethnographic studies, and documents pertaining to local European American history. The
16 results showed there is one previously recorded archaeological site noted in records as being
17 present within the analysis area. Site 35MW19, also known as "The Northwestern Outlet Site,"
18 was described as a prehistoric lithic scatter consisting of flakes and a knife. There is another
19 archaeological site, 35MW15, identified as being located adjacent to, but outside, the proposed
20 amended site boundary. Site 35MW15 is a prehistoric debris scatter consisting of lithic flakes
21 and formed tools⁵⁶.

22
23 Following the records review, WillametteCRA conducted a pedestrian field survey and shovel
24 testing in accordance with the SHPO standards and guidelines (Oregon SHPO 2007) within the
25 site boundary expansion areas between April 5 and 9, 2016.

26
27 Site 35MW19 was originally recorded during archaeological work conducted in the [1970's for](#)
28 [the Carty Generation Station](#) and Pebble Springs Reservoir Areas. In 2009, Archaeological
29 Investigations Northwest, Inc. (AINW), contracted by PGE conducted a series of field
30 investigations to relocate site 35MW19. PGE reports that no artifacts were found during the
31 pedestrian survey of the recorded 35MW19 archaeological site area. Shovel tests were
32 excavated outside of the recorded site 35MW19 area at least 30 m from the edge of the
33 recorded site boundaries. Eighteen shovel tests were excavated around the site periphery to

⁵⁵ Furthermore, in accordance with ORS 469.501(4), the Council may not impose the Historic, Cultural, and Archaeological Resources standard to approve or deny an application for an energy facility producing power from solar energy. However, to the extent it determines appropriate, the Council may apply the standard to impose conditions on a site certificate.

⁵⁶ CGSAMD1. RFA1 Exhibit S, confidential material. 2018-02-20.

1 verify the absence of archaeological deposits in the surrounding area. No artifacts were found
2 in these shovel tests.

3
4 Most recently, eleven additional shovel tests were excavated near the area that was not
5 previously excavated to support road maintenance work associated with the Boardman Plant.
6 No archaeological materials were found on the surface or in the thirty 50 cm² units excavated.
7 On behalf of the certificate holder, WillametteCRA concludes that no evidence of archaeological
8 site 35MW19 was found during the current pedestrian survey or shovel testing of the analysis
9 area.⁵⁷ On June 13, 2016, Oregon SHPO issued a concurrence letter to PGE, stating that PGE
10 demonstrated a good faith effort in relocating the site 35MW19, and considering that no
11 evidence of the site has been found in recent surveys, SHPO agreed that the site is not eligible
12 for listing in the NRHP and indicated that the proposed Carty Solar Farm will Boardman Plant
13 road work would have no effect on any significant archaeological objects or sites.⁵⁸ On
14 December 2, 2016 Oregon SHPO issued a concurrence letter to PGE stating that the proposed
15 Carty Solar Farm will have no effect on any significant archaeological objects or sites. Based on
16 the survey results and concurrence letter that SHPO provided, the Department recommends
17 Council delete Condition 11.1 as presented below:

18
19 ~~Condition 11.1. [Deleted] Before beginning construction, the certificate holder shall label~~
20 ~~Oregon State Historic Preservation Office (SHPO) archaeological resource site 35MW19 and~~
21 ~~a 100-foot buffer around site 35MW19 on construction maps and drawings as a “no entry”~~
22 ~~area. Site 35MW19 and its 100-foot buffer shall be marked with temporary fencing or~~
23 ~~stakes with rope and/or flagging to prevent inadvertent entry].~~
24 ~~[Final Order IV.K.2.1] [Amendment No. 1]~~

25
26 The second site 35MW15 is located outside of but adjacent to the site boundary and analysis
27 area. It consists of lithic flakes and formed tools. The shovel probing survey by PGE’s contractor
28 investigated the area outside of the defined site boundary for 35MW15 but within the analysis
29 area⁵⁹. Eighteen shovel tests were excavated around the site to verify the presence or absence
30 of archaeological deposits in the surrounding area. No artifacts were found in these shovel
31 tests. Therefore, WillametteCRA concludes that the site 35MW15 does not extend into the
32 analysis area.

33
34 It is possible that construction activities could uncover previously unrecorded historic, cultural
35 or archaeological resources. The certificate holder commits to implementing the Inadvertent
36 Discovery Procedure in the event of discovery of any previously unidentified cultural resource.
37 The plan includes ceasing construction, operations, or retirement activities within the
38 immediate vicinity of the newly identified cultural resource pending evaluation by a qualified
39 archeologist, and notifying the appropriate tribal and state authorities.

⁵⁷ CGSADM1. RFA1 Exhibit S, Page 5. 2018-02-20.

⁵⁸ CGSAMD1. RFA1 Exhibit S. Attachment S-1. 2018-02-20.

⁵⁹ CGSAMD1. RFA Exhibit S, p. S-3. 2018-02-20.

1
2 During review of the amendment request, Confederated Tribes of the Umatilla Indian
3 Reservation (CTUIR) provided comments indicating that the proposed Carty Solar Farm would
4 be located within the ceded lands boundaries of the CTUIR. As described in the letter, the
5 project area is within a historic travel corridor used by the CTUIR peoples, and has a high
6 possibility to encounter unmarked burials.⁶⁰ CTUIR expressed concern about inadvertent
7 discovery due to the ground disturbance activities. Based on these comments, the Department
8 recommends Condition 11.6, related to the certificate holder's Inadvertent Discovery Plan, be
9 amended to address CTUIR's comment and to reduce potential adverse impacts on historic,
10 cultural, and archaeological resources, as follows:

11
12 **Condition 11.6.** The certificate holder shall:

- 13 i. ~~Prepare and implement an Archaeological Monitoring Plan for construction activities~~
14 ~~to address and mitigate impacts from exposure of unanticipated or previously~~
15 ~~unidentified cultural resources that may be exposed during construction of the facility. A~~
16 ~~current copy of the plan must be maintained at the administration/control building and~~
17 ~~made available to authorized representatives of the Department upon request. The~~
18 ~~Archaeological Monitoring Plan, as proposed by the certificate holder, shall include the~~
19 ~~following requirements:~~
20 a. ~~[Deleted] The certificate holder will be responsible for providing a qualified~~
21 ~~archaeological monitor for any ground disturbing project construction activity that~~
22 ~~occurs within the area between the shovel tests excavated in 2009 and the~~
23 ~~delineated 100-foot buffer around 35MW19. No ground disturbance is permitting~~
24 ~~within the site boundaries or the 100-foot buffer around the archaeological site~~
25 ~~[AMD1].~~
26 b. A qualified archaeological monitor is a person who meets the "qualified
27 archaeologist" standards defined by ORS 390.235(6)(b)...
28 [Final Order IV.K.2.6, Condition 11.6]
- 29 ii. At least 45-days prior to construction of the Carty Solar Farm, provide to the
30 Department for review and approval, in consultation with SHPO and the Confederated
31 Tribes of the Umatilla Indian Reservation (CTUIR), an amended Archaeological
32 Monitoring Plan for construction activities to address and mitigate impacts from
33 exposure of unanticipated or previously unidentified cultural resources that may be
34 exposed during construction of the Carty Solar Farm. The amended Archaeological
35 Monitoring Plan shall include the following requirements:
36 a. The certificate holder shall coordinate with CTUIR prior to and during ground
37 disturbing activities to determine if a tribal monitor should be onsite.

⁶⁰ CGSAMD1 RFA Comment Tribal Government CTUIR. 2018-04-02.
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- 1 b. A qualified archeologist, as defined in 11.6(i)(b) of this condition, shall be mobilized
2 to the site if unanticipated resources are discovered and Condition 11.6.ii(c) through
3 (f) will be applicable.
- 4 c. The archeological monitor will keep a daily log of construction and monitoring
5 activities. If intact archaeological materials are encountered during the monitoring,
6 the monitor will initiate procedures for inadvertent discovery of archaeological
7 resources, as specified in ORS 358.920.
- 8 d. Artifacts will be examined and documented in the field and will not be collected
9 unless authorized under the provisions of a SHPO permit, if one is obtained in the
10 inadvertent discovery of archaeological resources process.
- 11 e. If human remains are identified during the course of construction monitoring, the
12 monitor will initiate the procedures for Inadvertent Discovery of Human Remains, as
13 specified in ORS 97.740-97.760.
- 14 f. The certificate holder is responsible for providing an archaeological monitoring
15 report to the Department and SHPO after construction work is completed. The
16 report must detail the activities of the monitor and any inadvertent discoveries
17 encountered, along with actions taken to address them.
18 [AMD1]

Commented [A10]: Make corresponding edits to the redline site certificate.

19 **Conclusions of Law**

20
21 Based on the foregoing analysis, and subject to compliance with existing and recommended
22 amended conditions, the Department recommends the Council find that the facility, with
23 proposed changes, would continue to comply with the Council's Historic, Cultural, and
24 Archaeological Resources Standard.

25 **III.L. Recreation: OAR 345-022-0100**

26
27 *(1) Except for facilities described in section (2), to issue a site certificate, the Council must*
28 *find that the design, construction and operation of a facility, taking into account*
29 *mitigation, are not likely to result in a significant adverse impact to important*
30 *recreational opportunities in the analysis area as described in the project order. The*
31 *Council shall consider the following factors in judging the importance of a recreational*
32 *opportunity:*

- 33
34 *(a) Any special designation or management of the location;*
35 *(b) The degree of demand;*
36 *(c) Outstanding or unusual qualities;*
37 *(d) Availability or rareness;*
38 *(e) Irreplaceability or irretrievability of the opportunity.*

***⁶¹

Findings of Fact

The Recreation standard requires the Council to find that the design, construction, and operation of a facility would not likely result in significant adverse impacts to “important” recreational opportunities. Therefore, the Council’s Recreation standard applies only to those recreation areas that the Council finds to be “important,” utilizing the factors listed in the sub-paragraphs of section (1) of the standard. The importance of recreational opportunities is assessed based on five factors outlined in the standard: special designation or management, degree of demand, outstanding or unusual qualities, availability or rareness, and irreplaceability or irretrievability of the recreational opportunity. The certificate holder evaluates impacts to important recreational opportunities based on the potential of construction or operation of the facility, with proposed changes, to result in any of the following: direct or indirect loss of an important recreational opportunity, excessive noise, increased traffic, and visual impacts of facility structures or plumes.

In accordance with OAR 345-001-0010(59)(d) and consistent with the study area boundary, the analysis area for recreational opportunities is the area within and extending 5 miles from the site boundary.

Recreational Opportunities within the Analysis Area

The single important recreational opportunity within the 5-mile analysis area is the Oregon National Historic Trail, which runs east-west approximately 2.1 miles south of the proposed Carty Solar Farm.

Evaluation of Potential Impacts to Important Recreation Opportunities

Under the Council’s Recreation standard, the Council must find that, taking into account mitigation, the facility, with proposed changes, is not likely to result in a significant adverse impact to those identified important recreational opportunities. The Department presents its evaluation of potential impacts below.

Potential Direct or Indirect Loss of Recreational Opportunity

The proposed Carty Solar Farm would not be located on or within the segment of Oregon National Historic Trail that is within the analysis area. Therefore, the proposed Carty Solar Farm would not physically disturb, or result in ground disturbance, to the important recreational opportunities identified within the analysis area. The proposed Carty Solar Farm would also not require any temporary or permanent closure or removal of the Oregon National Historic Trail to

⁶¹ The facility is not a special criteria facility under OAR 345-0015-0310; therefore, OAR 345-022-0100(2) is not applicable.

public use. Therefore, the Department recommends the Council find that the proposed Carty Solar Farm would not be expected to result in direct or indirect loss to important recreational opportunities within the analysis area.

Potential Noise Impacts

Construction

The proposed Carty Solar Farm would generate construction-related noise. Construction related noise would be short-term and intermittent and would result from site clearing, excavation, foundation work, and equipment installation. Construction equipment noise levels are estimated to be less than 50 A-weighted decibels [dBA] at a distance of 5-miles, which is equivalent to noise levels of light traffic. The Oregon National Historic Trail is located approximately 2.1-miles from the proposed amended site boundary; therefore, anticipated construction-related noise levels would be expected to be greater than 50 dBA.

Existing Condition 13.1 would reduce noise impacts during construction by requiring the use of exhaust mufflers on combustion engine-powered equipment; and requires that the certificate holder establish a noise complaint response system, and provide, upon request, noise complaint records to the Department. Based on the distance of construction-related noise, and short-term, intermittent nature of construction activities, and relatively quiet noise levels, the Department recommends that Council find that construction of the proposed Carty Generating Station would not be likely to result in significant adverse noise impacts at the Oregon National Historic Trail segment within the analysis area.

Operation

The proposed Carty Solar Farm would result in potential maximum overall A-weighted sound power level output of 44 dBA at 400 feet. In RFA1, the certificate holder provides a noise analysis of the proposed Carty Solar Farm including the following sources:

- 25 inverters at 87 dBA
- 25 Step-up transformers at 94 dBA

As presented in RFA1 Exhibit X, the noise modeling analysis for operational noise demonstrates that noise generated by the proposed Carty Solar Farm would be less than 30 dBA, equivalent to the noise level of a soft whisper, at the Oregon National Historic Trail.⁶² Therefore, based on the certificate holder's noise modeling assessment, the Department recommends Council find that operation of the proposed Carty Solar Farm would not be likely to result in significant adverse noise impacts to the important recreational opportunity within the analysis area.

⁶² CGSAMD1. RFA1 Exhibit X. 2018-02-23.

Commented [A11]: Adjust formatting depending on final acceptance of edits.

Potential Traffic Impacts

Construction

The proposed Carty Solar Farm would generate construction-related traffic, not expected to exceed 400 trips per day. The certificate holder describes that construction-related traffic would utilize I-84 and Tower Road. The nearest segments of the Oregon National Historic Trail are accessed from State Route 74, 9 miles west of Tower Road on Interstate 84, or from Bombing Range Road, 8 miles to the east of Tower Road on Interstate 84.⁶³ Based on the distance from Oregon National Historic Trail access roads to Tower Road, the Department recommends Council find that construction-related traffic would not result in significant adverse impacts to the important recreational opportunity within the analysis area.

While not related to impacts under the Council's Recreation standard, as described in Section III.M. *Public Services*, the Department recommends Council amend Condition 6.17 and impose Condition 6.26. These conditions would require that the certificate holder, prior to and during construction, evaluate construction related traffic to confirm whether a Traffic Impact Assessment (TIA) is required in accordance with MCZO Section 3.010(N)(1); the conditions also require that the certificate holder develop and implement a Construction Traffic Management Plan to minimize traffic impacts on Tower Road.

Operation

The proposed Carty Solar Farm would generate operational-related traffic. However, the certificate holder asserts that operational traffic would result in up to 2 additional vehicle trips per day and would not utilize roads providing access to the Oregon National Historic Trail segment within the analysis area, other than Tower Road. Because operation of the proposed Carty Solar Farm would not substantially increase trip generation on Tower Road, the Department recommends Council find that operational-traffic impacts would not be likely to

⁶³ CSGAMD1. RFA1 Exhibit T, p. T-2. 2018-02-20.
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1 result in a significant adverse impact to the important recreational opportunity within the
2 analysis area.

3 *Potential Visual Impacts*

5
6 The proposed Carty Solar Farm and its supporting facilities would result in visible facility
7 structures including solar modules with a maximum height of 10 feet; inverters with a
8 maximum height of 11 feet; and, a 34.5 kV transmission line with 70-foot-tall wooden poles.
9 To support its evaluation of potential visual impacts of the proposed Carty Solar Farm and its
10 supporting facilities, the certificate holder completed a zone of visual influence (ZVI) analysis.⁶⁴
11 A ZVI analysis identifies visibility based on topography but does not account for screening from
12 vegetation or structures.

13
14 Based on the ZVI analysis, as presented in Figure R-1, the proposed Carty Solar Farm and its
15 supporting facilities would be visible from several small areas along the Oregon National
16 Historic Trail segment within the analysis area. However, given the distance of over 2 miles
17 from the proposed amended site boundary to the nearest point of the Oregon National Historic
18 Trail, and the overall height of proposed structures, the Department recommends Council find
19 that visual impacts of the proposed Carty Solar Farm would not likely result in a significant
20 adverse impact to this important recreational opportunity.

21 **Conclusions of Law**

22
23
24 Based on the foregoing recommended findings of fact and conclusions, and subject to
25 compliance with existing site certificate conditions, the Department recommends that the
26 Council find that the facility, with proposed changes, would continue to comply with the
27 Council's Recreation standard.

28 **III.M. Public Services: OAR 345-022-0110**

29
30 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the*
31 *Council must find that the construction and operation of the facility, taking into account*
32 *mitigation, are not likely to result in significant adverse impact to the ability of public*
33 *and private providers within the analysis area described in the project order to provide:*
34 *sewers and sewage treatment, water, storm water drainage, solid waste management,*
35 *housing, traffic safety, police and fire protection, health care and schools.*

36
37 *(2)The Council may issue a site certificate for a facility that would produce power from*
38 *wind, solar or geothermal energy without making the findings described in section (1).*
39 *However, the Council may apply the requirements of section (1) to impose conditions on*
40 *a site certificate issued for such a facility.*

⁶⁴ CGSAMD1. Request for Additional Information Responses. 2018-09-24.
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Findings of Fact

The Council's Public Services standard requires the Council to evaluate the likelihood of a facility or facilities, with proposed changes, to result in significant adverse impacts to the ability of public and private service providers to supply sewer and sewage treatment, water, stormwater drainage, solid waste management, housing, traffic safety, police and fire protection, health care, and schools. The evaluation provided below is based on the maximum number of workers during construction (100 to 130 workers) and operation (1 to 2 workers).

In accordance with OAR 345-001-0010(59)(b) and consistent with the study area boundary, the analysis area for potential impacts to public services from construction and operation of the facility, with proposed changes, is defined as the area within and extending 10-miles from the site boundary.

Sewer and Sewage Treatment; Stormwater Drainage

The proposed Carty Solar Farm and its supporting facilities would generate sewage during construction and operation. During construction, portable toilets managed by a licensed third-party contractor would be utilized for sewage treatment. During operation, Boardman Coal Plant's sanitary waste treatment system, and onsite sewage lagoons, would be utilized for sewage treatment. Therefore, construction and operation of the proposed Carty Solar Farm and its supporting facilities would not result in use or impacts to public or private sewage treatment providers.

The proposed Carty Solar Farm and its supporting facilities would generate stormwater during rain events. During construction, stormwater runoff would be minimized through implementation of best management practices in accordance with a 1200-C National Pollutant Discharge Permit to be obtained from Oregon Department of Environmental Quality prior to construction, as required per Condition 9.1. During operation, stormwater would be minimized through site grading that would allow stormwater infiltration into the ground. The proposed Carty Solar Farm and its supporting facilities would not result in use of or impacts to public or private stormwater drainage facilities.

Water

Construction and operation of the proposed Carty Solar Farm and its supporting facilities would result in water use. Approximately 8 million gallons of water would be used primarily for dust abatement, but would also be used for equipment and vehicle washing, washing concrete trucks and fire suppression. Water used for construction would be obtained by a third-party contractor through a limited water use license, obtained prior to construction. PGE's proposed source of water for the limited water use is the Carty Reservoir under PGE's existing water

1 right.⁶⁵ Based on the certificate holder's proposed source of temporary water, the Department
2 recommends Council find that construction of the proposed Carty Solar Farm and its supporting
3 facilities would not result in use of or impacts to the ability of public or private providers of
4 water to deliver services.

5
6 Water used during operations of the proposed Carty Solar Farm would primarily result from
7 panel washing. Panel wash water would be obtained from Carty Reservoir or a municipal
8 source. Potable water used during operations would be obtained from Boardman/Carty potable
9 water system sourced from an existing onsite well, hauled in from nearby water systems, or a
10 private provider. Operational water withdrawn from Carty Reservoir and facility-specific wells
11 would not result in impacts on the ability of public or private providers of water to deliver
12 services.

13 14 *Solid Waste Management*

15 16 *Construction*

17
18 As explained in RFA1 Exhibit V, construction activities are anticipated to result in approximately
19 5 tons per week of waste including domestic refuse, office waste, packaging materials, steel
20 cut-offs, and construction materials. Construction materials include concrete waste, wood,
21 plastic, glass, and erosion control materials. The certificate holder also notes that waste could
22 include hazardous materials, including oil rags, depleted batteries, as well as vehicle
23 maintenance solvents and oils. The certificate holder represents in RFA1 Exhibit U that 5 tons of
24 solid waste is "well within the handling capacities" of the Sanitary Disposal Inc. and other waste
25 management providers listed in Table U-1.

26
27 During operation, the certificate holder expects to generate "negligible" solid waste, consisting
28 primarily of office and maintenance waste. Waste generated during operations would be
29 disposed through its existing Carty Generating Station plant services building. The certificate
30 holder anticipates to be a "Conditionally Exempt Generator," which is a classification reserved
31 for organizations that generate less than 220 pounds of hazardous waste per month.

32
33 Council previously imposed Condition 6.3 and 10.22 requiring that the certificate holder, during
34 construction and operation, develop Waste Management Plans that would implement waste
35 reducing measures including training employees to segregate and recycle recyclable materials.
36 These conditions would continue to apply to the facility, with proposed changes. Therefore, the
37 Department recommends Council find that waste generating during construction and operation
38 of the proposed Carty Solar Farm would not result in significant adverse impacts on the ability
39 of public or private providers to provide solid waste management services.

⁶⁵ CGSAMD1 Request for Additional Information Responses. 2018-09-24.
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1
2 *Housing, Health Care and Schools*
3

4 Construction and operation of the proposed Carty Solar Farm would not contribute substantial
5 numbers of additional workers to the analysis area. Based on its experience during Unit 1
6 construction, the certificate holder assumes that many construction personnel will be either
7 permanent residents of the Boardman area or temporary residents who commute from the Tri-
8 Cities area in Washington.
9

10 The certificate holder describes that approximately 4.5% of rental units in Morrow County are
11 vacant and there are approximately fourteen hotels or motels within Boardman and
12 Hermiston.⁶⁶ If necessary, individuals would receive healthcare for Trauma III Level services in
13 Hermiston. Individuals would receive Trauma I Level services in Portland. Emergency medical
14 transport would be provided by the Morrow County Health District Emergency Medical
15 Services, which maintains ambulances in Boardman and Irrigon. Council previously imposed
16 Conditions 8.2 and 8.3 requiring that the certificate holder implement a site health and safety
17 plan, which would minimize potential onsite risks resulting in use of local health care providers.
18 Based on the short-term duration of construction, relatively low number of workers, and
19 existing availability of housing, health care facilities and schools, the Department recommends
20 Council find that construction of the proposed Carty Solar Farm would not be likely to result in a
21 significant adverse impact on the ability of public and private providers of housing, schools, and
22 health care to deliver services.
23

24 Based on the fact that the proposed Carty Solar Farm would result in up to 2 permanent
25 employees during operations, there are no expected significant adverse impacts to the housing,
26 health care and school providers within the analysis area.
27

28 *Traffic Safety*
29

30 During the approximately 9 to 24 month construction period, the certificate holder anticipates
31 employing, on average, 50 to 60 workers and an estimated maximum of 130 workers employed
32 during peak construction. In RFA1 Exhibit U, the certificate holder estimates that peak
33 construction traffic would include up to 28 truck trips per day (round trip). The certificate
34 holder estimates that combining truck trips and workforce trips, and ~~within~~ applying a 1.25
35 carpooling factor, up to 150 construction vehicles (or 300 round trips) per day would be added
36 to the background traffic patterns along the primary transportation route, I-84, which would
37 not be expected to significantly impact traffic safety service providers.
38

39 Potential traffic-related impacts on surrounding roadways would be limited to Tower Road. The
40 certificate holder proposes measures expected to reduce passenger car equivalent trips per day

⁶⁶ CGSRFA1. Exhibit U, p. U-3. 2018-02-20.
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1 including carpooling, staggering worker start times, installation of temporary traffic controls,
2 funding for overtime to provide additional traffic patrols along Tower Road, coordination of
3 random patrols along Tower Road, and/or frequency coordination with the Morrow County
4 Sheriff's office to inform them of periods of increased traffic to the site. Council previously
5 imposed Condition 6.17 under the Public Services standard requiring implementation of traffic
6 control measures during construction. The Department recommends Council amend Condition
7 6.17 requiring that the certificate holder, during construction, implement a Construction
8 Related Traffic Management Plan including the certificate holder's proposed measures and
9 recordkeeping demonstrating that passenger car equivalents during construction are
10 maintained below 400.

11
12 **Condition 6.17, as amended:** During construction of the facility, ~~the certificate holder shall~~
13 ~~implement measures to reduce traffic impacts, as follows:~~

- 14 i. The certificate ~~holder~~ shall implement measures to reduce traffic impacts, as
15 follows:
16 a. The certificate holder shall reduce peak hour volumes during construction by
17 staggering shift start times or implementing other measures that would
18 significantly reduce the total number of construction worker vehicle trips
19 through the westbound I-84/Tower Road ramp terminal; or
20 b. The certificate holder shall install temporary traffic controls during peak
21 construction to prioritize westbound left-turning vehicles at the westbound
22 Tower Road ramp terminal during the weekday a.m. peak hour.

23 [Final Order IV.M.2.9]

24 ii. The certificate holder shall:

- 25 a. Implement a final Construction Traffic Management Plan, as approved by the
26 Department per Condition 6.26.
27 b. Include the requirements of the Construction Traffic Management Plan in
28 contract specifications for construction contractors, as applicable.
29 c. Maintain a monthly log, to be submitted monthly to the Department for review
30 and confirmation of compliance with the components of the Construction Traffic
31 Management Plan.
32 d. The Department, in consultation with the Morrow County Public Works
33 Department, may require implementation of additional traffic management
34 measures including a Traffic Impact Assessment per MCZO Section 3.010(N)(1) if
35 any requirement of the Construction Traffic Management Plan is determined not
36 adequately implemented, or if additional measures are deemed necessary based
37 on actual passenger car equivalent trips per day during facility construction.
38 Within 30-days of submittal of the monthly compliance report required under
39 sub(c), the certificate holder shall obtain written confirmation from the
40 Department on any additional construction traffic management measures
41 required to be implemented.

42 [AMD1]
43

1 The Department also recommends Council impose Condition 6.26, requiring that the certificate
2 holder develop a Construction Traffic Management Plan, to be reviewed and approved by the
3 Department in consultation with Morrow County prior to construction. The recommended new
4 condition requires that the certificate holder, prior to construction, re-assess peak passenger
5 car equivalent anticipated during construction activities to confirm whether a TIA is required.
6 The recommended new condition specifies that if a TIA is required, the certificate holder shall
7 prepare and submit a TIA to the Department and Morrow County Planning Department, for
8 review and approval; and, requires that the certificate holder provide documentation to the
9 Department pursuant to OAR 345-027-0057 to evaluate whether the proposed change in
10 construction-related traffic would trigger a site certificate amendment.

11
12 Condition 6.26, as recommended: Prior to beginning construction of the Carty Solar Farm,
13 the certificate holder shall:

- 14 a. Confirm whether, based on anticipated construction activities, peak construction traffic
15 is anticipated to exceed 400 passenger car equivalent trips per day. If more than 400
16 passenger car equivalent trips per day is anticipated, the certificate holder shall prepare
17 and submit to the Department and Morrow County Planning Department a Traffic
18 Impact Assessment per MCZO Section 3.010(N) Transportation Impacts for review and
19 approval. If a TIA is required, the certificate holder shall submit documentation to the
20 Department in accordance with OAR 345-027-0057.
- 21 b. Prepare and submit to the Department a Construction Traffic Management Plan for
22 review and approval. The certificate holder shall demonstrate that the Construction
23 Traffic Management Plan, at a minimum, includes:
 - 24 1. Traffic management measures or other recommendations to minimize traffic
25 impacts on Tower Road, as applicable, based upon consultation with Morrow County
26 Public Works Department and Morrow County Sheriff's Office.
 - 27 2. Staggering shift start times or other measures that would significantly reduce the
28 total number of construction worker vehicle trips through the westbound I-
29 84/Tower Road ramp terminal; or
 - 30 3. Installation of temporary traffic controls during peak construction to prioritize
31 westbound left-turning vehicles at the westbound Tower Road ramp terminal during
32 the weekday a.m. peak hour.

33 [AMD1]

34
35 Long-term operational traffic would generate approximately 2 passenger car or pickup truck
36 trips per day, with infrequent heavy vehicle trips. Based on compliance with the above-
37 described recommended amended and new conditions, the Department recommends Council
38 find that construction and operational-traffic impacts (i.e. vehicle trip generation) from the
39 proposed Carty Solar Farm would not to be likely to result in a significant adverse impact to the
40 ability of public or private providers of traffic safety.

41 *Fire Services*

42 Boardman Rural Fire Protection District provide fire protection services in the analysis area.

1
2 As shown in RFA1 Exhibit U Attachment U-1, the certificate holder contacted the Boardman
3 Rural Fire Protection District with information about the proposed Carty Solar Farm. The District
4 commented that the proposed Carty Solar Farm is located in an area that is subject to high
5 indices of large and rapid spreading wildfires. However the Fire Protection District also noted
6 that "the facility is not anticipated to cause any substantial increase to the impacts upon the
7 fire district." The certificate holder is required to comply with Oregon Fire Code 605.12.2
8 provisions, which includes a requirement that the area under the installation will either be
9 graveled or otherwise covered in a noncombustible base. Council previously imposed Condition
10 8.7 requiring that the certificate holder, during construction and operation, develop and
11 implement fire safety plans in consultation with the District. This condition applies to the
12 proposed Carty Solar Farm and would require that the certificate holder demonstrate whether
13 the existing plan covers fire safety requirements of the proposed Carty Solar Farm, or whether
14 the plans needs to be revised. Based on compliance with existing condition, the Department
15 recommends Council find that construction and operation of the proposed Carty Solar Farm
16 would not to be likely to result in a significant adverse impact to the ability of public or private
17 fire service providers to provide services.

18 19 *Police Protection*

20
21 Law enforcement services in the analysis area are provided by Morrow County Sherriff's Office.
22 Based on the relatively small number of new temporary and permanent residents associated
23 with the proposed Carty Solar Farm, construction and operation activities would not be
24 anticipated to place significant demands on the providers of police protection in the analysis
25 area. Council previously imposed condition 8.1 requiring that the certificate holder provide on-
26 site security and establish good communication with Morrow County Sheriff's Office. This
27 condition would apply during construction and operation of the proposed Carty Solar Farm.
28 Based on compliance with existing condition, the Department recommends Council find that
29 construction and operation of the proposed Carty Solar Farm would not to be likely to result in
30 a significant adverse impact to the ability of public or private police protection service providers
31 to provide services.

32 33 **Conclusions of Law**

34 Based on the foregoing analysis, and subject to the existing, and recommended amended
35 conditions, the Department recommends that the Council find that the facility, with proposed
36 changes, would continue to comply with the Council's Public Services standard.

37 **III.N. Waste Minimization: OAR 345-022-0120**

38
39 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the*
40 *Council must find that, to the extent reasonably practicable:*
41

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

5
6 (b) The applicant's plans to manage the accumulation, storage, disposal and
7 transportation of waste generated by the construction and operation of the facility
8 are likely to result in minimal adverse impact on surrounding and adjacent areas.
9

10 (2) The Council may issue a site certificate for a facility that would produce power from
11 wind, solar or geothermal energy without making the findings described in section (1).
12 However, the Council may apply the requirements of section (1) to impose conditions on
13 a site certificate issued for such a facility.
14

15 **Findings of Fact**

16
17 The Waste Minimization standard requires the Council to find that the certificate holder will
18 minimize the generation of solid waste and wastewater, and that the waste generated would
19 be managed to minimally impact surrounding and adjacent areas. Pursuant to OAR 345-022-
20 ~~00200120(2)~~, the Council may issue a site certificate for a ~~wind-solar~~ facility without making
21 findings regarding the Waste Minimization standard; however, the Council may impose site
22 certificate conditions based upon the requirements of the standard.
23

24 *Solid Waste*

25
26 As explained in RFA Exhibit V, construction activities are anticipated to result in approximately 5
27 tons per week of waste including domestic refuse, office waste, packaging materials, steel cut-
28 offs, and construction materials. Construction materials include concrete waste, wood, plastic,
29 glass, and erosion control materials. The certificate holder also notes that waste could include
30 hazardous materials, including oil rags, depleted batteries, as well as vehicle maintenance
31 solvents and oils. The certificate holder represents in RFA1 Exhibit U that 5 tons of solid waste is
32 "well within the handling capacities" of the Sanitary Disposal Inc. and other waste management
33 providers listed in Table U-1.
34

35 During operation, the certificate holder expects to generate "negligible" solid waste, consisting
36 primarily of office and maintenance waste. Waste generated during operations would be
37 disposed through its existing Carty Generating Station plant services building. The certificate
38 holder anticipates to be a "Conditionally Exempt Generator," which is a classification reserved
39 for organizations that generate less than 220 pounds of hazardous waste per month.
40

41 Council previously imposed Condition 6.3 and 10.22 requiring that the certificate holder, during
42 construction and operation, develop Waste Management Plans that would implement waste
43 reducing measures including training employees to segregate and recycle recyclable materials.
44 These conditions would continue to apply to the facility, with proposed changes. Therefore, the

1 Department recommends Council find that the facility, with proposed changes, would continue
2 to minimize and manage solid waste, resulting in minimal adverse impacts on surrounding and
3 adjacent areas from construction of the proposed Carty Solar Farm.

4 5 *Wastewater*

6
7 Construction and operation of the proposed Carty Solar Farm would generate wastewater for
8 disposal. During construction, wastewater would be generated from washing equipment and
9 vehicles, washing concrete trucks after delivery of concrete loads, and fire suppression. The
10 certificate holder maintains an existing Water Pollution Control Facilities (WPCF) permit, issued
11 by Oregon Department of Environmental Quality but governed and incorporated into the site
12 certificate. The existing WPCF authorizes wastewater disposal through evaporation and
13 seepage from construction-related wastewater. During operations, wastewater would be
14 generated from solar panel washing, which is not currently authorized by the WPCF permit.
15 Therefore, through the EFSC amendment process, the certificate holder requests to modify its
16 WPCF to allow disposal of solar panel wash water through evaporation and seepage. Based on
17 DEQ's review of the WPCF permit amendment request, a new condition would be imposed to
18 prohibit the use of soaps and chemicals, as described in Section III.D. *Soil Protection* of this
19 order. Any potential wastewater generated from stormwater runoff during construction would
20 be managed in accordance with the BMPs described in the NPDES 1200-C / Erosion and
21 Sediment Control Plan-, until that permit is terminated. Condition 9.5 requires the applicant to
22 monitoring and repair any erosion concerns during operations

23
24 Therefore, based on compliance with the WPCF, as amended, the Department recommends
25 Council find that the facility, with proposed changes, would continue to minimize and manage
26 wastewater, resulting in minimal adverse impacts on surrounding and adjacent areas from
27 construction of the proposed Carty Solar Farm.

28 29 **Conclusions of Law**

30 Based on the foregoing analysis, and subject to existing and recommended amended
31 conditions, the Department recommends that the Council find that that facility, with proposed
32 changes, would continue to comply with the Council's Waste Minimization standard.

33 **III.O. Division 23 Standards**

34
35 The Division 23 standards apply only to "nongenerating facilities" as defined in ORS
36 469.503(2)(e)(K), except nongenerating facilities that are related or supporting facilities. The
37 facility is not a nongenerating facility as defined in statute, and therefore Division 23 is
38 inapplicable to the requested amendment.

39 **III.P. Division 24 Standards**

40
41 The Council's Division 24 standards include specific standards for siting facilities including wind,
42 underground gas storage reservoirs, transmission lines, and facilities that emit carbon dioxide.

1 The only applicable Division 24 specific standard to the components included in the
2 amendment request is Siting Standards for Transmission Lines (OAR 345-024-0090).

3
4 It is noted that OAR 345-024-0550 through -0600 applies to the Carty Generating Station, for
5 which the certificate holder has complied. The facility components included in the amendment
6 request would not emit carbon dioxide emissions regulated under the Council's standard.
7 Therefore, the proposed facility components are not required to demonstrate compliance with
8 the Council's Carbon Dioxide Standard and is not evaluated in this order.

9
10 **III.P.1. Siting Standards for Transmission Lines: OAR 345-024-0090**
11

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

14
15 *(1) Can design, construct and operate the proposed transmission line so that alternating*
16 *current electric fields do not exceed 9 kV per meter at one meter above the ground*
17 *surface in areas accessible to the public;*

18
19 *(2) Can design, construct and operate the proposed transmission line so that induced*
20 *currents resulting from the transmission line and related or supporting facilities will*
21 *be as low as reasonably achievable*
22

23 **Findings of Fact**

24 The Siting Standards for Transmission Lines address issues associated with alternating current
25 electric fields and induced currents generated by high-voltage transmission lines. OAR 345-024-
26 0090(1) sets a limit for electric fields from transmission lines of not more than 9 kV per meter at
27 one meter above the ground surface in areas that are accessible to the public. Section (2)
28 requires the certificate holder design, construct and operate the line in a manner that reduces
29 the risk posed by induced current.

30
31 *Electric Fields*
32

33 Electric fields around transmission lines are produced by the presence of an electric charge,
34 measured as voltage, on the energized conductor. Electric field strength is directly proportional
35 to the line's voltage; increased voltage produces a stronger electric field.

36
37 The certificate holder modeled electric fields, magnetic fields, radio interference and television
38 interference within the boundaries of the study area. The model utilizes a methodology
39 developed by the Bonneville Power Administration and the EMF estimates are computed for a
40 height of 1 meter aboveground. The outputs used for calculating the EMF strengths are assumed
41 to be typical peak-load outputs from the generators and are therefore higher than the nominal

1 outputs.⁶⁷ As shown in Table AA-1 and Figure AA-1 of ASC-RFA1 Exhibit AA, modeled electric
2 fields for the proposed 34.5 kV interconnection transmission line options range from 0.01 to
3 8.83 kV/m. While the maximum modeled electric field is 8.83-kV per meter, it remains below the
4 9-kV per meter threshold set forth in OAR 345-024-0090(1). Therefore, based on the certificate
5 holder's modeling, the Department recommends Council find that the proposed 34.5 kV
6 interconnection transmission line would not exceed 9-kV per meter at one meter above ground
7 level.

8 9 *Induced Voltage and Current*

10
11 The Siting Standards for Transmission Lines requires the Council to find that the certificate
12 holder "can design, construct and operate the proposed transmission line so that induced
13 currents resulting from the transmission line and related or supporting facilities will be as low as
14 reasonably achievable."

15
16 As presented in RFA1 Exhibit AA, the certificate holder describes that induced currents from the
17 proposed 34.5 kV interconnection transmission line would be as low as reasonably achievable.
18 Council previously imposed Condition 6.5, requiring that the certificate holder design, construct
19 and operate transmission lines in accordance with requirements of the National Electrical Safety
20 Code. Council previously imposed Condition 7.9, requiring that the certificate holder develop
21 and implement a program during operations to ensure structures that could become
22 inadvertently charged are grounded or bonded throughout the life of the facility. These
23 conditions would apply to the proposed 34.5 kV interconnection transmission line and would
24 minimize potential impacts from induced voltage and current.

25
26 ~~The Department recommends Council amend Condition 6.5, which mirrors the regulatory~~
27 ~~language of OAR 345-025-0010(4), based on recent rule changes. The language of OAR 345-025-~~
28 ~~0010(4) was updated by Council in 2015. Therefore, the Department recommends Council~~
29 ~~amend Condition 6.5, consistent with OAR 345-025-0010(4)(a), as follows:~~

30 31 **Condition 6.5, as amended:**

- 32 ~~i. The certificate holder must design, construct and operate the transmission line in~~
33 ~~accordance with the requirements of the National Electrical Safety Code (American~~
34 ~~National Standards Institute, Section C2, 1997 Edition, or its successor document).~~
35 ~~{Final Order IV.O.2.1} [Site Specific Condition OAR 345-027-0023(4)]~~
36 ~~ii. The certificate holder must design, construct and operate the transmission line(s) in~~
37 ~~accordance with the requirements of the National Electrical Safety Code approved~~
38 ~~on June 3, 2011, by the American National Standards Institute.~~
39 ~~{Site Specific Condition OAR 345-025-0010(4)} [AMD1]~~

Commented [A12]: Make corresponding edit to redline site
certificate if comment is accepted.

⁶⁷ CGSAMD1. RFA1 Exhibit AA, p. AA-5. 2018-02-20.
Carty Generating Station
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November 2018

1
2 **Conclusions of Law**

3 For the reasons discussed above, and subject to compliance with the existing and
4 recommended amended conditions, the Department recommends Council find that the facility,
5 with proposed changes, would comply with the Council's Siting Standards for Transmission
6 Lines.

7 **III.Q. Other Applicable Regulatory Requirements Under Council Jurisdiction**
8

9 Under ORS 469.503(3) and under the Council's General Standard of Review (OAR 345-022-
10 0000), the Council must determine whether the components proposed in the amendment
11 request would comply with "all other Oregon statutes and administrative rules..." as applicable
12 to the issuance of an amended site certificate. This section addresses the applicable Oregon
13 statutes and administrative rules that are not otherwise addressed in Council standards,
14 including noise control regulations, regulations for removal or fill of material affecting waters of
15 the state, and regulations for appropriating ground water.
16

17 **III.Q.1. Noise Control Regulations: OAR 340-035-0035**
18

19 *(1) Standards and Regulations:*

20 ***

21 *(b) New Noise Sources:*

22 ***

23 *(A) New Sources Located on Previously Used Sites. No person owning or controlling a*
24 *new industrial or commercial noise source located on a previously used industrial or*
25 *commercial site shall cause or permit the operation of that noise source if the*
26 *statistical noise levels generated by that new source and measured at an appropriate*
27 *measurement point, specified in subsection (3)(b) of this rule, exceed the levels*
28 *specified in Table 8, except as otherwise provided in these rules. For noise levels*
29 *generated by a wind energy facility including wind turbines of any size and any*
30 *associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies.*

31 ***

32 **Findings of Fact**

33 The Department of Environmental Quality (DEQ) noise control regulations at OAR 340-035-0035
34 have been adopted by Council as the compliance requirements for EFSC-jurisdiction energy
35 facilities. OAR 340-035-0035 provides the DEQ noise regulations for industry and commerce.
36 The DEQ noise rules set noise limits for new industrial or commercial noise sources based upon
37 whether those sources would be developed on a previously used or previously unused site.⁶⁸

⁶⁸ A "previously unused industrial or commercial site" is defined in OAR 340-035-0015(47) as property which has not been used by any industrial or commercial noise source during the 20 years immediately preceding commencement of construction of a new industrial or commercial source on that property.

The proposed Carty Solar Farm and its supporting facilities would be located on approximately 400 acres, within an approximately 1,581-acre proposed amended site boundary. Historically, the land has been used for rangeland and industrial use by Boardman Coal Plant and Carty Generating Station. The proposed amended site boundary is in proximity to Interstate 84, a highly traveled highway. This location would be considered a “previously used industrial or commercial site,” because under OAR 340-035-0015(47) the property has been used by an industrial noise source within the last 20 years. Therefore, OAR 340-035-0035(1)(b)(A) noise control regulations for new industrial or commercial noise sources located on a previously used site apply to noise generated by the proposed Carty Solar Farm.

Under the regulations, the proposed Carty Solar Farm must comply with the statistical noise limits contained in “Table 8” under OAR 340-035-0035(1)(b)(A). Table 6, *Statistical Noise Limits for Industrial and Commercial Noise Sources* below provides the information contained in “Table 8.”

Table 6: Statistical Noise Limits for Industrial and Commercial Noise Sources

Statistical Descriptor ¹	Maximum Permissible Hourly Statistical Noise Levels (dBA)	
	Daytime (7:00 AM - 10:00 PM)	Nighttime (10:00 PM - 7:00 AM)
L50	55	50
L10	60	55
L1	75	60
Notes:		
1. The hourly L50, L10 and L1 noise levels are defined as the noise levels equaled or exceeded 50 percent, 10 percent, and 1 percent of the hour, respectively.		
Source: OAR 340-035-0035, Table 8		

Potential Construction Noise

OAR 340-035-0035(5) outlines exemptions to the DEQ noise rules including exemptions for emergency equipment, warning devices not operating continuously for more than 5 minutes, and sounds created in construction or maintenance of capital equipment. OAR 340-035-0035(5)(g) specifically exempts noise that originates on construction sites. Therefore, construction related noise is not required to be evaluated to demonstrate compliance with this rule.

Potential Operational Noise

The primary noise generating components associated with the proposed Carty Solar Farm include inverters and transformers. Inverters are employed to convert direct current generated from the solar modules to alternating current power, so the power may be sent to the grid. Transformers increase, or step up, the voltage to ensure the power is efficiently transmitted to the grid, and this process creates noise emissions.

1
2 The certificate holder conducted an acoustic modeling assessment using the Computer Aided
3 Noise Abatement (CadnaA) software program to make predictions of peak noise levels at noise-
4 sensitive properties within the analysis area. RFA1 Figure X-1, Noise Contours illustrates the
5 locations of the noise-sensitive properties in the vicinity of the proposed amended site
6 boundary. As represented and described, there are no noise sensitive properties within 1-mile
7 of the proposed amended site boundary, with the closest residential receptor (a noise-sensitive
8 property) to the proposed Carty Solar Farm located more than two miles away.⁶⁹
9

10 The CadnaA software program utilizes sound propagation factors adopted from International
11 Organization for Standardization (ISO) 9613-2 *Acoustics—Sound Attenuation During*
12 *Propagation Outdoors*. Atmospheric absorption was estimated for conditions of 10 degrees
13 Celsius and 70 percent relative humidity (conditions that favor propagation) and computed in
14 accordance with ISO 9613-1. The model divides the proposed Carty Solar Farm into a list of
15 individual point, line, and area noise sources (including inverters, each with a maximum sound
16 power level estimated at 87 dBA and step-up transformers, each with a maximum sound power
17 level of 94 dBA) representing each piece of equipment that produces a significant amount of
18 noise. Using these sound power levels as a basis, the model calculates the sound pressure level
19 that would occur at each noise sensitive receptor from each source after losses from distance,
20 air absorption, blockages, and other factors are considered. The sum of all these individual
21 levels is the total level from the Carty Solar Farm at the modeling point.
22

23 Based on the acoustic noise modeling assessment, the proposed Carty Solar Farm would result
24 in potential maximum overall A-weighted sound power level output of 44 dBA at 400 feet. The
25 predicted sound levels from the proposed Carty Solar Farm at the closest residence
26 (approximately 2.3 miles away) would be less than 30 dBA. Therefore, the Department
27 recommends Council find that operational noise generated from the proposed Carty Solar Farm
28 would comply with OAR 340-035-0035.
29

30 **Conclusions of Law**

31

32 Based on the foregoing findings, the Department recommends Council finds that the proposed
33 Carty Solar Farm would comply with the Noise Control Regulations in OAR 340-035-
34 0035(1)(b)(A).
35

36 **III.Q.2. Removal-Fill**

37

38 The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and Department of State Lands
39 (DSL) regulations (OAR 141-085-0500 through 141-085-0785) require a removal-fill permit if 50
40 cubic yards or more of material is removed, filled, or altered within any “waters of the state.”⁷⁰

⁶⁹ CGSAMD1. RFA1 Exhibit X, p. X-7. 2018-02-20.

⁷⁰ ORS 196.800(15) defines “Waters of this state.” The term includes wetlands and certain other waterbodies.

1 The Council, in consultation with DSL, must determine whether a removal-fill permit is needed
2 and if so, whether a removal-fill permit should be issued. The analysis area for wetlands and
3 other waters of the state is the area within the site boundary.

4
5 **Findings of Fact**

6 The certificate holder states that a removal-fill permit is not required because construction and
7 operation of the proposed Carty Solar Farm would not require removal of materials from or
8 placement of materials in any wetland or waterbody features. Information regarding wetlands
9 and other waters of the state is provided in RFA1 Exhibit J, including a revised wetland
10 delineation report for the new site boundary areas (RFA1 Exhibit J, Attachment J-1) and DSL's
11 2013 concurrence letter for the original Carty Generating Station facility (RFA1 Exhibit J
12 Attachment J-2).

13
14 The wetland delineation report and fieldwork were completed by the certificate holder's
15 environmental consultant, Ecology and Environment, Inc. (E &E). Fieldwork was conducted in
16 2016; surveys in areas within the original site boundary were initially conducted in 2009, 2012
17 and 2013. The analysis area is referred to in RFA1 Exhibit J as the amended site boundary,
18 consistent with the wetland delineation report. The exhibit addresses the potentially
19 jurisdictional wetlands and waterbodies in proximity to the proposed Carty Solar Farm.

20
21 The results of the wetland delineation studies are presented in RFA1 Exhibit J. Overall, there are
22 eight wetlands, two streams and one artificial pond (sewage lagoon) within the amended site
23 boundary.⁷¹ The eight wetlands and two streams are located in the area north of the northern
24 dam embankment for the Carty Reservoir, and also west and northwest of Unit 1. However, the
25 artificial pond is the only water identified in the analysis area.⁷² The sewage lagoon is located
26 2,100 feet east of Unit 1, within the Boardman Plant railroad loop. The southern portion of the
27 sewage lagoon is adjacent to one of the potential routes for the proposed 34.5 kV
28 interconnection transmission line as showed in RFA1 Exhibit J Figure J-1. The certificate holder
29 states the construction and operation of proposed Carty Solar Farm would not cause any
30 impact to jurisdictional wetland or waterbodies, therefore would not need a removal-fill
31 permit. DSL reviewed the revised wetland delineation report and provided the concurrence
32 letter on September 18, 2018, in which DSL concurred with the wetland delineation and
33 classifications.⁷³

34
35 Based on proposed facility component locations and DSL's concurrence, the Department
36 recommends Council conclude that a removal-fill permit would not be required for this
37 amendment request. Council previously imposed Condition 10.26 and 10.13 requiring that the
38 certificate holder provide final design maps to the Department demonstrating that proposed

⁷¹ CGSAMD1. Request for Amendment, Exhibit J. J-2. 2018-02-20.

⁷² *Id.*

⁷³ CGSAMD1. DSL Concurrence of WD 2018-0158. 2018-09-18.

1 facility components would be sited to avoid jurisdictional waters, and requiring that the
2 certificate holder avoid disturbance to delineated wetlands during construction, respectively.

3 4 **Conclusions of Law**

5 Based on the foregoing analysis, and in accordance with Oregon Removal-Fill Law (ORS 196.795
6 through 196.990) and regulations (OAR 141-085-0500 through 141-085-0785), the Department
7 recommends Council find that a removal-fill permit is not needed for the proposed Carty Solar
8 Farm.

9 10 **III.Q.3. Water Rights**

11
12 Under ORS Chapters 537 and 540 and OAR Chapter 690, the Oregon Water Resources
13 Department (OWRD) administers water rights for appropriation and use of the water resources
14 of the state. Under OAR 345-022-0000(1)(b), the Council must determine whether the facility,
15 with proposed changes, would comply with the statutes and administrative rules identified in
16 the project order. The project order identifies OAR 690, Divisions 310 and 380 (Water
17 Resources Department permitting requirements) as the administrative rules governing use of
18 water resources and water rights as applicable to the facility.

19 20 **Findings of Fact**

21
22 OAR 690 establishes the procedures and standards which shall be applied by the OWRD in the
23 evaluation of applications for a permit to appropriate surface water, ground water, to construct
24 a reservoir and store water, to use reserved water, or to use water stored in a reservoir. The
25 certificate holder is not requesting a groundwater permit, a surface water permit, or a water
26 rights transfer during the construction and operation of the proposed Carty Solar Farm.

27
28 Construction and operation of the proposed Carty Solar Farm and its supporting facilities would
29 result in water use. Approximately 8 million gallons of water would be used primarily for dust
30 abatement, but would also be used for equipment and vehicle washing, washing concrete
31 trucks and fire suppression. Water used for construction would be obtained by a third-party
32 contractor through a limited water use license, obtained prior to construction. PGE's proposed
33 source of water for the limited water use is the Carty Reservoir under PGE's existing water
34 right.⁷⁴

35
36 Water used during operations of the proposed Carty Solar Farm would primarily result from
37 panel washing. The certificate holder describes approximately 0.65 to 1.65 million gallons of
38 water would be needed per panel washing event. Panel wash water would be obtained from
39 Carty Reservoir or a municipal source. Potable water used during operations would be obtained

⁷⁴ CGSAMD1 Request for Additional Information Responses. 2018-09-24.
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1 from Boardman/Carty potable water system sourced from an existing onsite well, hauled in
2 from nearby water systems, or a private provider.
3

4 Based on the certificate holder's assessment, the Department recommends Council concur that
5 it can obtain adequate water for construction and operation of the proposed Carty Solar Farm
6 and does not need a groundwater permit, surface water permit, or water right transfer. If such
7 a permit is required at a later time, a site certificate amendment would be required to review
8 and consider such a permit application.
9

10 **Conclusions of Law**

11 Based on the foregoing findings of fact, the Council concludes that the facility, with proposed
12 changes, does not need a groundwater permit, surface water permit, or water right transfer.
13
14
15
16

1 **IV. PROPOSED CONCLUSIONS AND ORDER**

2
3 Based on the recommended findings and conclusions included in this order, the Department
4 recommends that Council make the following findings:

- 5
6 1. The proposed facility modifications included in Request for Amendment 1 of the
7 Carty Generating Station site certificate complies with the requirements of the
8 Oregon Energy Facility Siting Statutes, ORS 469.300 to 469.520.
9
10 2. The proposed facility modifications included in Request for Amendment 1 of the
11 Carty Generating Station site certificate complies with the standards adopted by the
12 Council pursuant to ORS 469.501.
13
14 3. The proposed facility modifications included in Request for Amendment 1 of the
15 Carty Generating Station site certificate complies with all other Oregon statutes and
16 administrative rules identified in the project order as applicable to the issuance of a
17 site certificate for the proposed facility.
18

19 Accordingly, the Department recommends that the Council find that the proposed facility
20 modifications included in Request for Amendment 1 of the Carty Generating Station site
21 certificate complies with the General Standard of Review (OAR 345-022-0000). The Department
22 recommends that the Council find, based on a preponderance of the evidence on the record,
23 that the site certificate may be amended as requested.
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1 **Proposed Order**

2
3 The Department recommends Council approve Amendment 1 of the Carty Generating Station
4 site certificate.

5
6 Issued this 9th day of November, 2018

7
8 The Oregon Department of Energy

9
10 By: _____
11 Todd R. Cornett, Assistant Director, Siting Division
12 Oregon Department of Energy

13
14 Attachments:

15 Attachment A: Proposed Amended Site Certificate (red-line)

16 Attachment B: Index of Comments Received on Request for Amendment 1

17 Attachment C: Responses to Department's Request for Additional Information
18 (RFA1 Supplement)

19 Attachment D: Draft Amended Wildlife and Habitat Monitoring and Mitigation Plan

20 Attachment E: Draft Amended Revegetation and Noxious Weed Control Plan

21 Attachment F: Draft Erosion and Sediment Control Plan

22 Attachment G: Amendment Rules at OAR 345-027-0050 thru -0070, prior to October 2017

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Notice of the Right to Appeal

[Text to be added to Final Order]

ESTERSON Sarah * ODOE

From: NADLER Carl <Carl.NADLER@state.or.us>
Sent: Friday, December 7, 2018 1:10 PM
To: ESTERSON Sarah * ODOE
Cc: BUTCHER Don; SKEEN Rod
Subject: RE: Comments on Amendment 1 Carty Generating Station Site Certificate

Hi Sarah,

As we discussed this morning, I'd like to clarify my comments in the email below on behalf of DEQ.

1. DEQ has no objection to deletion of Paragraphs 10.33 and 10.34 from the Site Certificate, so long as the certificate holder is required to comply with the requirements of the WPCF Permit, and that appears to be the case. Based on our conversation this morning and ODOE's Proposed Order on Request for Amendment 1 (see page 29, lines 27 and 28), Paragraph 10.28 of the Site Certificate requires the certificate holder to comply with the WPCF permit.
2. Schedule A, Condition 10 and Schedule C, Condition 2 of the WPCF permit do not apply to discharges from Carty Generating Station to Carty Reservoir. Rather, those conditions apply to discharges from Carty Generating Station to lined evaporation ponds at the site. If at a later date, the certificate holder converts the lined holding ponds to evaporation ponds, then Schedule A, Condition 10 and Schedule C, Condition 2, along with Schedule B, Condition 1.b of the WPCF permit will apply to operation of those evaporation ponds.

Please let me know if you have any questions or would like to discuss.

Carl Nadler
DEQ – WQ Program
The Dalles Office
(541) 298-7255, ext. 227

From: NADLER Carl
Sent: Wednesday, November 14, 2018 4:29 PM
To: 'ESTERSON Sarah * ODOE' <Sarah.Esterson@oregon.gov>
Cc: SKEEN Rod <SKEEN.Rod@deq.state.or.us>; BUTCHER Don <BUTCHER.Don@deq.state.or.us>
Subject: Comments on Amendment 1 Carty Generating Station Site Certificate

Hi Sarah,

I'd like to comment on behalf of DEQ regarding Proposed Amendment 1 to the Carty Generating Station Site Certificate.

EFSC proposes to delete Paragraphs 10.33 and 10.34 from the Site Certificate. However, Paragraph 10.33 is substantially similar to WPCF Permit 100189, Schedule C, Condition 2. In addition, Paragraph 10.34 is substantially similar to WPCF Permit 100189, Schedule A, Condition 10. The WPCF permit is attached. Accordingly, DEQ objects to deletion of Paragraphs 10.33 and 10.34.

Background

Prior to construction of Carty Generating Station Block 1, PGE planned to construct up to four new lined ponds for disposal of wastewater from Block 1 by evaporation. The company projected that four lined ponds would provide

adequate capacity for the total wastewater from a single block without wastewater treatment (page 14 of the permit evaluation report, which is attached). In addition, PGE anticipated that as the design process progressed, the potential to discharge a portion or all of the wastewater from Carty Generating Station to Carty Reservoir, and the potential that additional wastewater treatment systems would be incorporated into the design, could result in a decrease in the total number and size of evaporation ponds.

With that information, DEQ drafted the WPCF Permit. As issued, Schedule A, Condition 10 of the permit limits the sources of wastewater from Carty Generating Station that PGE is allowed to discharge to the lined ponds. Schedule B, Condition 1.b requires PGE to routinely monitor the wastewater in the lined ponds based on the expected character of the wastewater permitted to be disposed in Schedule A, Condition 10. To ensure the Schedule B monitoring requirements were appropriate, Schedule C, Condition 2 required the company to submit a wastewater characterization to DEQ prior to discharge of wastewater treatment system wastewater to the lined ponds.

On June 22, 2016, prior to start-up of Carty Generating Station Block 1, DEQ received PGE's revised OM&M Plan. The plan stated that the lined holding ponds (previously referred to as evaporation ponds) at Carty Station would be operated on a continuous blowdown basis to Carty Reservoir (pages 12 and 13 of the revised OM&M Plan, which is attached). The company argued that because the lined ponds are not deemed a final disposal location for wastewater, additional monitoring of the water in the holding ponds will not be conducted. The company stated that if operation of the holding ponds changes in the future, such that one or both become evaporation ponds (i.e., if the holding ponds are isolated from the reservoir and used for evaporation as a primary disposal method), PGE will coordinate with DEQ to revise the OM&M Plan to reflect the monitoring and reporting requirements outlined in WPCF Permit (Schedule B, Condition 1.b). In other words, the current continuous blowdown configuration may be temporary. The company went on to say that during the permit-required annual OM&M Plan review, PGE will verify the characterization of wastewater stream and processes that discharge to the holding ponds. Additionally, PGE will coordinate with DEQ prior to disposal in the event of an unanticipated release of unpermitted waste to the holding ponds. PGE asserted that the impact on the reservoir by discharge from the holding ponds is monitored by monthly reservoir sampling and that DEQ will be contacted if permitted reservoir limits are exceeded. DEQ approved the OM&M Plan on June 22, 2016 with the condition that any inconsistencies between the plan and the permit will be resolved in accordance with the permit. However, to my knowledge, DEQ has not received any characterization of the wastewater stream.

Conclusions

DEQ objects to deletion of Paragraphs 10.33 and 10.34 because deleting those paragraphs from the Site Certificate will render the WPCF Permit inconsistent with the Site Certificate and potentially nullify the corresponding permit conditions. Furthermore, whether PGE operates the ponds as evaporation ponds or on a continuous blowdown basis, DEQ is the state agency responsible for permitting the wastewater facilities, and as such, necessarily needs to be able to regulate the wastes authorized for treatment and disposal in the permitted wastewater facilities and needs to be informed of the character of the wastewater discharged to those facilities.