

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

In the Matter of Request for Amendment 3 of the
Carty Generating Station Site Certificate

) PROPOSED ORDER ON
) AMENDMENT 3 OF THE SITE
) CERTIFICATE

July 15, 2022

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- Attachment B-1: Reviewing Agency Comments on preliminary RFA3
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- Attachment C: Updated Inadvertent Discovery Plan

1 **I. INTRODUCTION**

2

3 The Oregon Department of Energy (Department) issues this ~~draft~~ proposed order, in
4 accordance with Oregon Revised Statute (ORS) 469.405(1) and Oregon Administrative Rule
5 (OAR) 345-027-~~03650372~~, based on its review of Request for Amendment 3 (RFA3) to the Carty
6 Generating Station (CGS or Carty) site certificate, as well as comments and recommendations
7 received by specific state agencies and local government (Morrow County Board of
8 Commissioners), ~~Tribal Governments and local governments~~ during review of the preliminary
9 amendment request. The certificate holder for the facility is Portland General Electric Company
10 (certificate holder or PGE).

11

12 The certificate holder requests approval from the Energy Facility Siting Council (EFSC or Council)
13 to amend the site certificate to authorize ~~the-a~~ change in the Carty Solar Farm (50 megawatts
14 [MW] of solar photovoltaic energy generation components) construction deadline from
15 February 4, 2022 to February 4, 2025; and to change the deadline for construction completion
16 from February 4, 2025 to February 4, 2028.

17

18 The certificate holder submitted preliminary RFA3 on February 3, 2022, which is before, but not
19 earlier than 12 months prior to, the construction commencement deadline of February 4, 2022,
20 in accordance with OAR 345-027-0360.

21

22 Based upon review of RFA3 and the comments and recommendations received by specific state
23 agencies, ~~Tribal Governments~~ and local governments, the Department recommends Council
24 approve the request and grant an amendment of the ~~CGS~~ Carty Generating Station site
25 certificate subject to the existing and, recommended amended conditions set forth in this ~~draft~~
26 proposed order. ~~Based upon review of RFA3 and the comments and recommendations received~~
27 ~~by specific state agencies and local governments, the Department recommends Council~~
28 ~~approve the request and grant an amendment of the Carty Generating Station site certificate~~
29 ~~subject to the existing and recommended amended conditions set forth in this draft proposed~~
30 ~~order.~~

31

1 **I.A. Name and Address of Certificate Holder**

2
3 Portland General Electric Company
4 121 SW Salmon Street
5 3WTC-~~BR050403~~
6 Portland, OR 97204

7
8 Individual responsible for submitting this amendment request:

9
10 Lenna Cope
11 Senior Environmental Specialist
12 Portland General Electric Company
13 121 SW Salmon Street, 3WTC0403
14 Portland, OR 97204
15 503-464-2634
16 Lenna.Cope@pgn.com

17
18 **I.B. Facility Description (Operational/Approved)**

19
20 The approved, operating facility includes a 450 MW natural gas fueled combined-cycle electric
21 generating turbine (Unit 1) and its associated components including a heat recovery steam
22 generator, steam turbine generator, natural-gas fueled auxiliary boiler, and cooling tower cell.
23 Related and supporting facilities include:

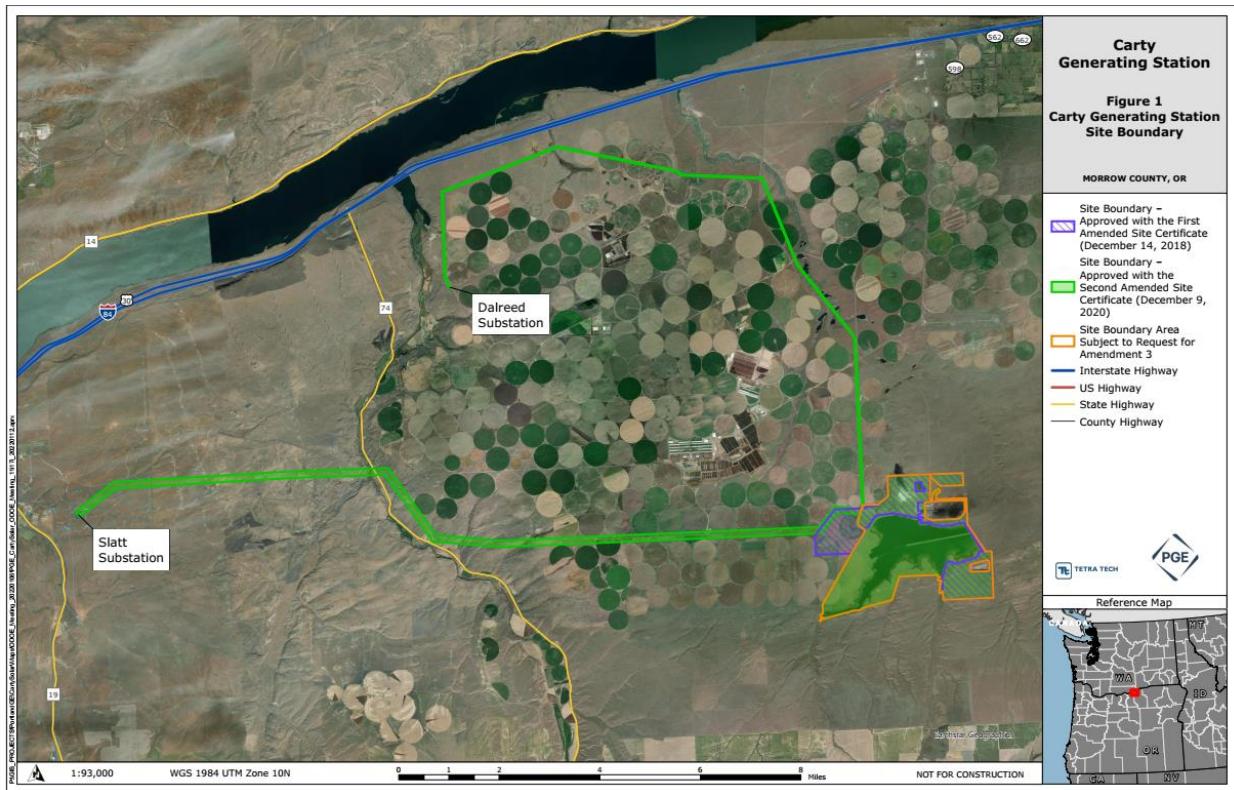
- 24 • Grassland Switchyard,
- 25 • ~~O~~ensite 500 kV interconnection transmission line (Unit 1 to Grassland Switchyard); 500
26 kV Grassland to Slatt transmission line; 230 kV BCP to Dalreed transmission line; 34.5 kV
27 BCP to railroad crossing at Tower Road transmission line; 34.5 kV backup station service
28 line (Grassland Switchyard)¹; 12.5 kV underground distribution line connecting the
29 construction substation to Boeing Well pump; 480-volt underground distribution line;
- 30 • Interconnecting water pipelines, sewer lines, liquid storage facilities, accessory
31 buildings, utility lines, septic system, two evaluation-evaporation ponds; water discharge
32 channel; sanitary sewage lagoons; Boeing well and pump; potable fire water tank.
- 33 • Roads and temporary laydown areas;
- 34 • Carty Reservoir and portions of the raw water intake system (includes 400-gallon
35 sodium hypochlorite tank, 1,100-gallon anti-scalant; and 400-gallon sodium
36 hypochlorite tote) and associated electrical connection;
- 37 • Construction Substation and, Carty Substation

38
1 34.5 kV backup station service line was reported by PGE on April 20, 2017; the Department evaluated and issued
a determination that a site certificate amendment was not required on June 14, 2017.

1 The site certificate authorizes construction and operation of several components which have
2 not yet been constructed including 50 MWs of solar photovoltaic energy generation equipment
3 (Carty Solar Farm), which is the subject of this amendment request; and components approved
4 in the Final Order on Amendment 2 including: security guard station, office and warehouse
5 space.

6
7 **I.C. Facility Location and Site Boundary**
8
9 The existing facility is located in Morrow and Gilliam Count*ies*, Oregon, southwest of the City
10 of Boardman and adjacent to the Carty Reservoir and the Boardman Coal Plant.
11
12 As presented in Figure 1, the Carty Solar Farm would be located within the southern portion of
13 the approved site boundary, entirely located in Morrow County.
14

Figure 1: Approved Carty Generating Station Site Boundary/Delineation of Site Boundary Area Applicable to the Amendment Request



15
16 **I.D. Site Certificate Procedural History**
17
18

19 The Council issued its *Final Order on the Application for Site Certificate for the Carty Generating*
20 *Station (Final Order on ASC)* on June 29, 2012. The site certificate became effective on July 2,
21 2012. The final order authorized the construction and operation of a natural gas fuel combined-

1 cycle generating plant producing up to 900 megawatts (MW) of electrical power, and related or
2 supporting facilities.

3
4 On December 14, 2018, Council issued its *Final Order on Amendment 1* and granted an
5 amended site certificate on December 14, 2018, which approved the construction and
6 operation of a 50 MW photovoltaic solar unit, construction and operation of a 34.5 kilovolt (kV)
7 interconnection transmission line, five interconnection transmission line routing options and
8 three interconnection options, use of temporary construction laydown and parking areas,
9 removal of reference to previously approved but not yet constructed Unit 2 and its associated
10 components and related or supporting facilities, site boundary modification (reduction from
11 3,800 to 1,581 acres), amendment to the Water Pollution Control Facilities (WPCF) Permit, and
12 condition amendments. Construction start and end dates were established in the Final Order on
13 Amendment 1 as Conditions 4.1(ii) and 4.2(ii) of the CGS site certificate.

14
15 On November 19, 2020, Council issued its *Final Order on Amendment 2* and granted an
16 amended site certificate on December 09, 2020, which approved a site boundary change;
17 incorporated shared infrastructure and existing facilities from the Boardman Coal Plant ([BCP],
18 prior to BCP decommissioning); construction of new infrastructure ~~at the Carty Generating~~
19 ~~Station; and modify amendment of the Water Pollution Control Facility (WPCF) permit.~~
20 Components approved in the Final Order on Amendment 2 that have been constructed include
21 the Carty Substation and onsite septic system; components not yet constructed include the
22 security guard station, office and warehouse.

23
24 ~~On February 3, 2022 the certificate holder submitted to the Department pRFA3, with a request~~
25 ~~for a Type B review, and a request to change the construction start and completion dates to Feb~~
26 ~~4, 2022 and Feb 4, 2028, respectively. No other changes have been requested.~~

27
28 **II. AMENDMENT PROCESS**

29 **II.A. Requested Amendment**

30
31 The certificate holder requests Council approval to extend the construction commencement
32 and completion deadline for components approved in the Final Order on Amendment 1
33 (referred to as "Carty Solar Farm"). The certificate holder, PGE, requests the Council amend
34 Conditions 4.1(ii) and 4.2(ii) to extend construction start and completion deadlines by three
35 years respectively.

36
37 Under this amendment request, the certificate is seeking Council approval to:

38 • change the construction start deadline from February 4, 2022 to February 4, 2025; and
39 • change the deadline for construction completion from February 4, 2025 to February 4,
40 2028.²

2 CGSAMD3 Complete RFA_2022-06-10. Section 3.1.

1 The portion of the previously approved site boundary subject to RFA3 is illustrated on Figure 1:
2 [Approved Carty Generating Station Site Boundary/Delineation of Site Boundary Area Applicable](#)
3 [to the Amendment Request. 2 \(Area Subject to RFA3\)](#). The RFA3 is required by Oregon
4 Administrative Rule (OAR) 345-027-0350(3) because the certificate holder seeks to extend the
5 construction beginning and completion deadline. No other changes requiring an amendment to
6 the site certificate per OAR 345-027-0350 are proposed by the certificate holder in RFA3. For
7 these reasons, the applicant has requested a Type B review for this amendment request.

8

9 **II.B. Amendment Review Process**

10 Council rules describe the differences in review processes for the Type A and Type B review
11 paths at OAR 345-027-0351.³ The Type A review is the standard or “default” amendment review
12 process for changes that require an amendment. A key procedural difference between the Type
13 A and Type B review process is that the Type A review requires a public hearing on the DPO,
14 and provides an opportunity to request a contested case proceeding on the Department’s
15 proposed order. Another difference between the Type A and Type B review process relates to
16 the time afforded to the Department in its determination of completeness of the amendment
17 and issuance of the DPO. It is important to note that Council rules authorize the Department to
18 adjust the timelines for these specific procedural requirements, if necessary.

19

20 A certificate holder may submit an amendment determination request to the Department for a
21 written determination of whether a request for amendment justifies review under the Type B
22 review process. The certificate holder has the burden of justifying the appropriateness of the
23 Type B review process as described in OAR 345-027-0351(3). The Department may consider,
24 but is not limited to, the factors identified in OAR 345-027-0357(8) when determining whether
25 to process an amendment request under Type B review.

26

27 On February 3, 2022, the certificate holder submitted preliminary RFA3 inclusive of a Type B
28 Review amendment determination request (Type B Review ADR), requesting the Department’s
29 review and determination of whether, based on evaluation of the OAR 345-027-0357(8) factors,
30 the amendment request could be reviewed under the Type B review process. On June 17, 2022,
31 [following the completeness review, as described below, and based on review of the OAR 345-](#)
32 [027-0357\(8\) factors, the Department issued its determination that the certificate holder](#)
33 [justified Type B review based on the low level of complexity, the limited level of interest in the](#)
34 [proposed changes anticipated by the Department, and the low likelihood of significant adverse](#)
35 [impacts or additional mitigation from the proposed change.](#)

³ OAR 345-027-0351(1) designates the amendment process that applies to Council’s review of a request for amendment to a site certificate to transfer a site certificate under OAR 345-027-0400, and OAR 345-027-0351(4) designates the pathway for a type c amendment under OAR 345-027-0380 which applies to a request for amendment when the change proposed in the request for amendment relates to the facility, or portion/phase of the facility, not yet in operation, but approved for construction in the site certificate or amended site certificate.

1 Under OAR 345-027-0360(3), the analysis area for any Council standard that requires evaluation
2 of impacts within an analysis area is the larger of either the study area as defined in OAR 345-
3 001-0000(59) or the analysis areas described in the project order for the facility, unless
4 otherwise approved in writing by the Department following a pre-amendment conference. On
5 February 2, 2022, the Department approved, in writing, use of analysis area based on the sites
6 of potential project impact, as opposed to the entire amended Carty Generating Station facility
7 site boundary. See Figure 1.

8

9 Pursuant to OAR 345-027-0363(2), on March 25, 2022, the Department determined pRFA3 to
10 be incomplete and issued requests for additional information. The certificate holder provided
11 responses to the information request #1 on April 29, 2022. After reviewing the responses to its
12 information request, on June 7, 2022, the Department determined the RFA3 to be complete.
13 Under OAR 345-027-0363(5), an RFA is complete when the Department finds that a certificate
14 holder has submitted information adequate for the Council to make findings or impose
15 conditions for all applicable laws and Council standards. The certificate holder submitted a
16 complete RFA3 on June 10, 2022 which was then posted on June 17, 2022 to the Department's
17 project website with an announcement notifying the public that the complete RFA3 had been
18 received and ~~is-was~~ available for viewing.

19

20 Reviewing Agency Comments on Request for Amendment 3

21

22 As presented in Attachment B-1 of this order, the Department received comments on pRFA3
23 from the following reviewing agencies and Special Advisory Group (SAG):

24

- 25 • Morrow County Board of Commissioners (SAG)⁴
- 26 • Oregon Department of Environmental Quality (DEQ)⁵
- 27 • Oregon Department of Fish and Wildlife (ODFW)⁶

28

29 These comments were provided to the certificate holder, for their consideration, between the
30 pRFA3 to complete RFA3 phases, and have been considered and incorporated into the analysis
31 included in this order, to the extent applicable to the amendment request.

32

33 The Department issued the draft proposed order (DPO), and a notice of a comment period on
34 the complete RFA3 and the draft proposed order (notice) on June 17, 2022, under the Type B
35 review process. The notice was distributed to all persons on the Council's general mailing list, to

⁴ CGSAMD3 pRFA3 Reviewing Agency Comment Morrow County SAG 2022-04-06. Morrow County comments submitted April 6, 2022 request that existing site certificate conditions (including Conditions 4.5 and 4.6) requiring land use/road use permits or agreements be in place prior to construction of the solar farm.

⁵ CGDAMD3 pRFA Reviewing Agency Comment ODEQ 2022-03-31 Comments no conditions related to Carty Solar Farm. No further comments on the DPO.

⁶ CGSAMD3 pRFA Reviewing Agency Comment ODFW 2022-02-17. ODFW comments note that PGE has coordinated with ODFW in the pRFA review and ODFW had no concerns or changes as a result of RFA3.

1 the special mailing list established for the facility (i.e. individuals that have signed up to receive
2 electronic notices from the Department for the Carty Generating Station or all EFSC energy
3 facilities), to an updated list of property owners supplied by the certificate holder, and to a list
4 of reviewing agencies as defined in OAR 345-001-0010(52). The comment period extended
5 from June 17 through July 12, 2022.

6

7 To raise an issue on the record of the draft proposed order, a person must have raised the issue
8 in a written comment submitted on or after the date of the notice of the draft proposed order,
9 received by the Department before the written comment deadline. The Council will not accept
10 or consider public comments on RFA3 or on the draft proposed order after the written
11 comment deadline, listed above, that closes the record on the draft proposed order. ~~After the~~
12 ~~Department considered all comments received before the comment deadline for the draft~~
13 ~~proposed order, but not more than 21 days after the comment deadline, the Department~~
14 ~~issued the proposed order. This proposed order includes the Department's evaluation of~~
15 ~~comments on the draft proposed order and any additional evidence received on the record of~~
16 ~~the draft proposed order. The proposed order recommends approval of RFA3. Upon issuance of~~
17 ~~the proposed order, the Department also issued a notice of the proposed order that was sent~~
18 ~~to the same list as noted above and listed under OAR 345-027-0372(2). During the DPO~~
19 ~~comment period, the Department received comments from the certificate holder, Oregon~~
20 ~~Department of Fish and Wildlife, and the Oregon Department of Aviation. These comments are~~
21 ~~provided as Attachment B-2 of this order and are incorporated, with reasoning and analysis,~~
22 ~~with the applicable sections.~~

23

24 On July 15, 2022, the Department issued the proposed order and a notice of the proposed
25 order. The notice was distributed to all persons on the Council's general mailing list, to the
26 special mailing list established for the facility (i.e. individuals that have signed up to receive
27 electronic notices from the Department for the Carty Generating Station or all EFSC energy
28 facilities), to property owners supplied by the certificate holder, and to a list of reviewing
29 agencies as defined in OAR 345-001-0010(52). This proposed order includes the Department's
30 analysis of whether the proposed RFA3 construction deadline extension meets each applicable
31 Council standard (with mitigation and subject to compliance with recommended conditions, as
32 applicable), based on the information in the record.

33

34 **II.C. Council Review Process**

35

36 The Council will review the proposed order at the July 22, 2022 meeting. The Council, may
37 adopt, modify or reject the proposed order based on the considerations described in OAR 345-
38 027-0375. If the proposed order is adopted or adopted, with modifications, the Council shall
39 issue a written final order granting issuance of an amended site certificate. If the proposed
40 order is denied, the Council shall issue a written final order denying issuance of the amended
41 site certificate. In making a decision to grant or deny issuance of the amended site certificate,
42 the Council shall apply the applicable laws and Council standards required under OAR 345-027-
43 0375 and in effect on the dates described in OAR 345-027-0375(3). The Council's final order is
44 subject to judicial review by the Oregon Supreme Court as provided in ORS 469.403

1 **II.D. 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
5 amendment is necessary (OAR 345-027-0350 and ~~00700355~~).

6
7 RFA3 is required by OAR 345-027-0350(3) because the certificate holder seeks to extend the
8 construction beginning and completion deadlines of the Carty Solar Farm.

9
10 The Type B amendment review process (consisting of rules 345-027-0359, -0360, -0363, -0365, -
11 0368, -0372, and -0375) shall apply to the Council’s review of a request for amendment that the
12 Department or the Council approves for Type B review under 345-027-0357(2), (3), and (4).⁷

13
14 **III. SCOPE OF REVIEW FOR REQUESTED AMENDMENT**

15
16 Under ORS 469.310, the Council is charged with ensuring that the “siting, construction and
17 operation of energy facilities shall be accomplished in a manner consistent with protection of
18 the public health and safety.” ORS 469.401(2) further provides that the Council must include in
19 the amended site certificate “conditions for the protection of the public health and safety, for
20 the time for completion of construction, and to ensure compliance with the standards, statutes
21 and rules described in ORS 469.501 and ORS 469.503.”⁸ The Council implements this statutory
22 framework by adopting findings of fact, conclusions of law, and conditions of approval
23 concerning the amended facility’s compliance with the Council’s Standards for Siting Facilities
24 at OAR 345, Divisions 22, 24, 26, and 27.

25
26 Under OAR 345-027-0375, in making a decision to grant or deny issuance of an amended site
27 certificate for a request for amendment to extend the deadlines for beginning or completing
28 construction, the Council must apply the applicable laws and Council standards designated in
29 OAR 345-027-0375(2)(b), in effect on the dates designated in OAR 345-027-0375(3). For a
30 request for amendment to extend the deadlines for beginning or completing construction, after
31 considering any changes in facts or law since the date the current site certificate was executed,
32 Council must determine that the preponderance of evidence on the record supports the
33 conclusion that the facility complies with all laws and Council standards that would be
34 applicable to an original site certificate application under Council’s review. Council need not
35 find compliance with an applicable law or Council standard if the Council finds that the criteria
36 designated under OAR 345-027-0375(2)(b)(A)-(D) is met.⁹ The effective dates Council must

⁷ OAR 345-027-0351(3).

⁸ ORS 469.401(2).

⁹ OAR 345-027-0375(2)(b)(A)-(D):

1 apply for applicable laws and Council standards that apply are the date the Council issues its
2 final order on the request for amendment, except under the Land Use standard, the effective
3 date for the applicable substantive criteria Council must apply is the date the request for
4 amendment was submitted.¹⁰ For all requests for amendment, the Council must determine that
5 the preponderance of evidence on the record supports the conclusion that the amount of the
6 bond or letter of credit required under OAR 345-022-0050 is adequate.

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

8
9 *(1) To issue a site certificate for a proposed facility or to amend a site certificate, the
10 Council shall determine that the preponderance of evidence on the record supports the
11 following conclusions:*

12
13 *(a) The facility complies with the requirements of the Oregon Energy Facility Siting
14 statutes, ORS 469.300 to ORS 469.570 and 469.590 to 469.619, and the standards
15 adopted by the Council pursuant to ORS 469.501 or the overall public benefits of the
16 facility outweigh the damage to the resources protected by the standards the facility
17 does not meet as described in section (2);*

18
19 *(b) Except as provided in OAR 345-022-0030 for land use compliance and except for
20 those statutes and rules for which the decision on compliance has been delegated by
21 the federal government to a state agency other than the Council, the facility
22 complies with all other Oregon statutes and administrative rules identified in the
23 project order, as amended, as applicable to the issuance of a site certificate for the
24 proposed facility. If the Council finds that applicable Oregon statutes and rules, other
25 than those involving federally delegated programs, would impose conflicting
26 requirements, the Council shall resolve the conflict consistent with the public interest.
27 In resolving the conflict, the Council cannot waive any applicable state statute.*

28 ****11*

(A) The certificate holder has spent more than 50 percent of the budgeted costs on construction of the facility;
(B) The inability of the certificate holder to complete the construction of the facility by the deadline in effect
before the amendment is the result of unforeseen circumstances that are outside the control of the certificate
holder;

(C) The standard, if applied, would result in an unreasonable financial burden on the certificate holder; and
(D) The Council does not need to apply the standard to avoid a significant threat to the public health, safety or the
environment;

¹⁰ OAR 345-027-0375(3).

¹¹ 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.

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

Findings of Fact

OAR 345-022-0000 provides the Council's General Standard of Review and requires the Council to find that a preponderance of evidence on the record supports the conclusion that the proposed construction deadline extensions RFA3 would comply with the requirements of EFSC statutes and the siting standards adopted by the Council and that the proposed extensions would comply with all other Oregon statutes and administrative rules applicable to the issuance of the amended site certificate.

As discussed in Section II.B., *Amendment Review Process* the Department consulted with other agencies during the site certificate amendment process to seek aid in the evaluation of the proposal against the relevant statutes, rules, and ordinances administered by these agencies. Additionally, the Department relied upon reviewing agencies' special expertise in evaluating the facility's compliance with the requirements of the Council's standards. As presented in this ~~draft~~ proposed order, the Department recommends that Council find that the existing and amended site certificate conditions would ensure that the facility, with proposed ~~changes~~construction deadline extension, would maintain compliance with all applicable statutes, administrative rules, and ordinances under Council jurisdiction.

OAR 345-027-0385: Appropriateness of Request for Amendment to Extend Construction Deadlines

OAR 345-027-0385(1) requires the certificate holder to explain its “need” for the requested deadline extension. The certificate holder explains that the need for the construction deadline extension is to allow more time for development planning predominately due to changes in the certificate holder’s plan related to Boardman Coal Plant (BCP), where instead of continuing to operate BCP with an alternative non-coal fuel source, BCP is being decommissioned. The certificate holder then requests additional time to consider how to utilize the site of the BCP as part of its plans on the Carty Solar Farm. In addition to the impact of BCP decommissioning, the certificate holder describes timing implications associated with the competitive bid process, which would not start until 2024. The Department recommends that Council consider the reasons provided by the certificate holder to be acceptable.

OAR 345-027-0385(4) limits the number of site certificate amendments extending construction deadlines that may be approved by Council to two, for facilities approved for construction after October 24, 2017. Therefore, because the site certificate amendment authorizing construction and operation of the Carty Solar Farm was issued in December 2018, this limitation applies. If

1 the construction deadline extension under RFA3 is approved, Council may only approve one
2 additional construction deadline extension in the future.

3

4 *Certificate Expiration [OAR 345-027-0313]*

5

6 The certificate holder seeks approval to extend the construction commencement and
7 completion deadlines, which is allowable pursuant to OAR 345-027-0385(3) and (4).

8

9 The proposed substantive changes to the site certificate are identified with strikethrough and
10 underlined text as follows:

11

12 **Recommended Amended Condition 4.1:** The certificate holder shall:

13

14 ii. Begin construction of the Carty Solar Farm within three years after the effective date
15 of the amended site certificate, or by February 4, 20222025. Under OAR 345-015-
16 0085(8), the site certificate is effective upon execution by the Council Chair and the
17 certificate holder. [AMD1, AMD3]

18

19 **Recommended Amended Condition 4.2:** The certificate holder shall:

20

21 ii. Complete construction of the Carty Solar Farm within six years of the effective date of
22 the amended site certificate, or by February 4, 20252028. The certificate holder shall
23 promptly notify the Department of the date of completion of construction of the Carty
24 Solar Farm and its supporting facilities. [AMD1, AMD3]

25

26 **Conclusions of Law**

27

28 Based on the foregoing recommended findings of fact and conclusions of law, and subject to
29 compliance with the recommended amended conditions, the Department recommends Council
30 find that the facility, with proposed changesconstruction deadline extensions, would continue
31 to satisfy the requirements of OAR 345-022-0000.

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

33

34 (1) *To issue a site certificate, the Council must find that the applicant has the
35 organizational expertise to construct, operate and retire the proposed facility in
36 compliance with Council standards and conditions of the site certificate. To conclude that
37 the applicant has this expertise, the Council must find that the applicant has
38 demonstrated the ability to design, construct and operate the proposed facility in
39 compliance with site certificate conditions and in a manner that protects public health
40 and safety and has demonstrated the ability to restore the site to a useful, non-
41 hazardous condition. The Council may consider the applicant's experience, the
42 applicant's access to technical expertise and the applicant's past performance in*

constructing, operating and retiring other facilities, including, but not limited to, the number and severity of regulatory citations issued to the applicant.

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

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

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

Findings of Fact

Compliance with Council Standards and Site Certificate Conditions

The certificate holder has operated for 133 years and as of the end of 2020 served 902,000 customers in 51 cities. Since the Council's approval of Amendment 1 in December 2018, the certificate holder represents that they have added one new wind resource, Wheatridge Renewable Energy Facility I, to their energy generation portfolio and retired one coal facility (Boardman Coal Plant) from their energy generation portfolio.

Since 2017, the certificate holder received one warning letter issued by the Department of Environmental Quality (DEQ) on April 15, 2019 for nine missed pH samples required by Water Pollution Control Facilities (WPCF) permit No. 100189 for the Boardman Coal Plant and Carty Generating Station. The certificate holder self-reported the issue to DEQ and implemented corrective actions in consultation with DEQ. In the warning letter, DEQ noted they did not intend to take enforcement action. The certificate holder self-reported to the Department a transformer spill on February 15, 2022 and a blade liberation on January February 1, 2022. The Department affirms that the certificate holder complied with EFSC's violation and reporting rules for these issues.

1 Council has previously found that PGE has demonstrated, through construction of previous
2 energy facilities, that it is capable of designing and constructing a solar facility that complies
3 with EFSC site certificate conditions, and has previously demonstrated an ability to restore a
4 facility to a useful, non-hazardous condition. For these reasons, the Department recommends
5 that Council find that PGE's ability to identify, and respond to, and resolve compliance issues is
6 representative of PGE's reasonable ability to construct and operate the ~~proposed~~ Carty Solar
7 Farm in compliance with existing and recommended ~~new or~~ amended site certificate
8 conditions.

9

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

11

12 Council has previously found that the certificate holder's ability to restore the facility site to a
13 useful, non-hazardous condition (as evaluated in Section III.G, *Retirement and Financial
Assurance* of this order) would meet the requirements of the Retirement and Financial
14 Assurance standard. In addition, the certificate holder's ability to construct and operate the
15 Carty Solar Farm in a manner that protects public health and safety is addressed in Section III.C.,
16 *Structural Standard*; Section III.M, *Public Services*; and Section III.P.1, *Siting Standards for
Transmission Lines*, of this order.

17

18

19 ~~ISO 9000 or ISO 14000 Certified Program~~

20

21

22 ~~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.~~

23

24

25

26 ~~Third Party Permits~~

27

28 ~~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. The certificate holder has
demonstrated the ability to obtain required permits for the site certificate. The WPCF permit
from DEQ for washwater disposal required for washing of solar panels, once the solar
component of the facility is constructed, will still be required under this amendment, if
approved by Council, and the applicant has demonstrated their ability to monitor, self report,
coordinate with the Department and DEQ to resolve, and a commitment to remain in
compliance with these requirements.~~

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1 **Conclusions of Law**

2

3 Based on the evidence presented in RFA3, the Department recommends that Council find that
4 with existing certificate conditions, the certificate holder has the ability to design, construct,
5 and operate the facility, with proposed ~~changes~~construction deadline extension, in compliance
6 with all Council standards and conditions, as required by the Organizational Expertise standard.

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

8

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

11

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

18

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

24

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

29

30 *(d) The applicant can design, engineer and construct the facility to avoid dangers to
31 human safety presented by the hazards identified in subsection (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 *(3) The Council may issue a site certificate for a special criteria facility under OAR 345-
39 015-0310 without making findings described in section (1). However, the Council may
40 apply the requirements of section (1) to impose conditions on a site certificate issued for
41 such a facility.*

1 **Findings of Fact**

2

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

11

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

13

14 The certificate holder's geotechnical consultant, Cornforth Consultants, Inc., of Portland,
15 Oregon prepared a geotechnical/geologic investigations report for AMD1. The report, dated
16 May 27, 2016, met the general guidelines in DOGAMI Open File Report 00-04 and the Oregon
17 State Board of Geologist Examiners' Guidelines for Preparing Engineering Geologic Reports
18 (Second Edition, May 30, 2014). Preliminary geologic and geotechnical site investigations were
19 completed at the Carty Solar Farm site during the period of March 29 through April 8, 2016. The
20 preliminary site work included a geologic reconnaissance of the area, drilling of four exploratory
21 borings to depths of 50 feet below the existing ground surface, and field electrical resistivity
22 measurements (one location) to evaluate on-site soil conductivity. The certificate holder
23 described that additional site investigations would be performed along the final route selected
24 for the proposed 34.5 kV interconnection transmission line.

25

26 ~~In AMD2, Council~~ previously imposed Conditions 5.4, 6.6, 6.7, 6.8, 6.10, and 6.11 to ensure
27 compliance with the Structural Standard. The Council also amended Conditions 6.7, 6.10, and
28 6.11 in the Final Order on Amendment 2 to be consistent with the mandatory condition
29 language required in the Council's October 2017 rule change for OAR 345-025-0006. These
30 requirements have not changed as a result of RFA3. Site certificate Structural Condition 5.4 will
31 continue to apply to the Carty Solar Farm, which requires pre-construction site-specific
32 geotechnical investigations based upon a protocol reviewed and approved by ODOE in
33 consultation with the Oregon Department of Geology and Mineral Industries (DOGAMI).

34

35 *Potential Seismic, Geological and Soil Hazards*

36

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

¹² OAR 345-022-0020(3) does not apply to this facility because the facility, with proposed changes, is not a special criteria facility under OAR 345-015-0310.

1 crustal faults. ~~For RFA3, the certificate holder relies upon evidence provided in revised RFA1~~
2 ~~Exhibit H, the Council found that~~ ~~T~~he Carty Solar Farm is over 200 miles from the Cascadia
3 Subduction Zone, no mapped active crustal faults are located within six miles of the site, and
4 risk of fault rupture is low. In RFA3, the certificate holder represents that they will address
5 seismic resiliency by adhering to current seismic building codes, applicable at time of
6 construction, which will incorporate the latest, widely-accepted earthquake data and science.
7 As discussed in revised RFA1, the certificate holder committed to compliance with the
8 applicable International Building Code or the Oregon Structural Specialty Code guidelines
9 released prior to final design efforts for the Carty Solar Farm. The certificate holder reaffirms
10 their commitment to this approach in RFA3.¹³

11
12 The two key geotechnical issues have been previously identified for the Carty Solar Farm and
13 present minor geotechnical concerns (potential for erosion of loose surficial soils, and a low
14 potential for collapse of the relatively loose, near-surface wind-blown soils) that the certificate
15 holder commits to mitigating, if necessary, during final design and construction phases of the
16 Carty Solar Farm.¹⁴ This would be covered through compliance of Condition 5.4, as described
17 below.

18
19 Council previously imposed Condition 5.4 requiring that the certificate holder complete a pre-
20 construction site-specific geotechnical investigation to further assess, and ensure avoidance of,
21 potential seismic, geologic, and soil hazards of the ~~proposed~~ Carty Solar Farm site at the time
22 when final location of facility components is understood. In AMD~~12~~, the Council amended
23 Condition 5.4 requiring that the pre-construction site-specific geotechnical investigation
24 completed for the ~~proposed~~ Carty Solar Farm be based upon a protocol reviewed and approved
25 by the Department in consultation with DOGAMI, and include geotechnical work as proposed
26 by the certificate holder. As noted above, this condition will continue to apply under AMD3, if
27 approved by Council. No changes to this condition are proposed by the certificate holder or
28 recommended by the Department for AMD3.

29
30 *Integration of Disaster Resilience Design*

31
32 The certificate holder previously assessed the facility with regards to disaster resilience design
33 and resiliency against climate change impacts for the ~~proposed~~ Carty Solar Farm in RFA1. The
34 location of the ~~proposed~~ Carty Solar Farm in the Eastern Cascadia Scenario Impact Zone
35 anticipates light damage from a ~~Cascadia Subduction Zone (CSZ)~~ earthquake (Oregon Resilience
36 Plan, 2013), improving the electricity grid's ability to recover from a regional disaster originating
37 to the west. Solar facilities are inherently resilient to disasters due to less complex generation
38 systems and fewer moving parts or ignition sources that could be damaged during shaking.

39
13 CGSAMD3 Complete RFA_2022-06-10, Section 6.3.

14 CGSAMD3 Complete RFA_2022-06-10, Section 6.3.

1 Following significant, regional storms that may impact other regional facilities, solar and other
2 facilities outside the high-rainfall areas of the Pacific Northwest improves extreme-storm
3 resilience.

4
5 RFA3 relies entirely on previous analysis for AMD1 for identifying and assessing climate and
6 disaster resiliency. As part of the analysis submitted for RFA1, the certificate holder identified
7 potential climate change impacts within the region as including (Dalton et al, 2017):

8

- 9 • More common extreme heat events
- 10 • Small increases in drought frequency
- 11 • Longer fire seasons
- 12 • More common storm events
- 13 • Altered precipitation patterns influencing rangeland vegetation
- 14 • Shifting streamflow seasonality

15
16 Council previously found that potential climate change impacts would either not affect the solar
17 facilities (i.e. more heat, more drought) or are mitigated through site development, such as
18 wildfire potential being reduced by site vegetation control. Local vegetation changes could
19 increase eolian (wind-driven) sand transport, though site maintenance would control for this.
20 Other factors, such as shifting streamflow seasonality, forest transformation and disturbance,
21 and challenges to fish would not apply to the ~~proposed~~ Carty Solar Farm due to the surrounding
22 grasslands and absence of streams traversing the site. Site drainage from strong storms would
23 be controlled by site grading and surface water control systems engineering using site-specific
24 hydraulic analyses. Future climate conditions that impact the region have been previously
25 considered by Council in AMD1 and AMD2, and are not expected to, negatively affect the
26 ~~proposed~~ Carty Solar Farm.

27
28 Potential impacts to the facility, such as increased wildfires resulting from climate change
29 impacts in the region, will be addressed under the Public Services standard and the final fire
30 and emergency response plans for the facility.

31
32 Based upon the evidence provided, and subject to compliance with the existing site certificate
33 conditions, the Department recommends that Council continue to find that the certificate
34 holder has adequately characterized the potential geologic and soil hazards of the ~~proposed~~
35 Carty Solar Farm site and its vicinity that could, in the absence of a seismic event, adversely
36 affect or be aggravated by the construction and operation of the facility, and that the certificate
37 holder continues to demonstrate that they can design, engineer, and construct the ~~proposed~~
38 Carty Solar Farm to avoid dangers to human safety and the environment presented by the
39 identified hazards.

40
41 **Conclusions of Law**

1 Based on the evidence presented in the amendment request, and in accordance with OAR 345-
2 022-0020(2), the Department recommends Council find that with existing site certificate
3 conditions, the certificate holder has the ability to design and construct the ~~proposed~~ Carty
4 Solar Farm to avoid dangers to human safety presented by the non-seismic hazards identified at
5 the site.

6

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

8

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

13

14 **Findings of Fact**

15 The analysis area for the Soil Protection standard is the area within the site boundary. The
16 approved site boundary includes 1,5814,997 acres and the ~~proposed~~ Carty Solar Farm would
17 permanently disturb approximately 321.5 acres. The majority of land proposed for the Carty
18 Solar Farm and its interconnection routes (described in Exhibits B, C, and K to RFA 1) is classified
19 as sagehill fine sandy loam.¹⁵ ~~RFA3 does not change those facts.~~

20

21 As part of the certificate holder's analysis submitted for RFA3, they provided updated review of
22 a number of verifiable and reliable sources for soils classification and identification. This was
23 done to verify ~~no-whether~~ changes in soil class or categories has occurred since Council's
24 approval of AMD12. A review of the Natural Resources Conservation Service (NRCS) Soil Survey
25 Geographic Database¹⁶ identified one soil class in the analysis area that had not previously been
26 identified by the certificate holder, but is not considered "new". The certificate holder explains
27 that approximately 1.8 acres of warden silt loam on 20-40 percent slopes is within the
28 southwest corner of the CGS site boundary but is located outside the area where the solar farm
29 components will occur.¹⁷

30

31 **Existing Soil Conditions and Land Use**

32

33 As noted above, the dominant soil type in the solar farm area is "sagehill sandy loam". Sagehill
34 fine sandy loam soils are considered to be "very deep, well-drained soil formed in wind-laid
35 material and calcareous lacustrine sediment." Sagehill fine sandy loam soils are considered to
36 be between classes IVe to VI as "dryland" and are considered to be between classes IIe to VIe
37 irrigated. Erosion risks to sagehill fine sandy loam are "slight" and the risk from "soil blowing" is
38 "moderate." In the Final Order for AMD1, Council agreed with the certificate holder's findings

¹⁵ CGS RFA 1 ExC 2018-02-09. p C-2.

¹⁶ United States Department of Agriculture, Natural Resources Conservation Service. Available online at <https://gdg.sc.egov.usda.gov/> October 2021. Accessed by the Department: 2022-05-06.

¹⁷ CGSAMD3 Complete RFA_2022-06-10, Section 6.4.

1 that the land proposed for the solar farm is not currently irrigated, and there is no record that
2 the land has been previously used for either agricultural or grazing purposes.

3

4 Potential Significant Adverse Impacts to Soil

5

6 As previously noted, the approved site boundary includes ~~1,5814,997. acres and Council has~~
7 ~~previously found that the proposed The~~ Carty Solar Farm would permanently disturb
8 approximately 321.5 acres. Potential impacts to soils include: soil erosion from wind or rain;
9 spills or leakage from power-driven equipment; soil compaction; or other damage arising from
10 construction debris and other construction pollutants. Potential soil impacts during
11 construction-related activities also includes risk from introduction or spreading of invasive
12 weeds, within the site boundary, through the use of transportation equipment.¹⁸ Potential
13 impacts to soils within the analysis area could also occur during operations, including
14 maintenance of equipment and access roads. Potential operational impacts to soils include soil
15 erosion resulting from construction-related activities, but in areas not yet stabilized at the time
16 of operations, spills or leakage from power driven equipment, and disposal of solar panel
17 washwater.

18

19 Impacts related to soil compaction and introduction of noxious weeds are discussed in Section
20 III.E. *Land Use* of the final order on AMD1. Council has previously imposed several conditions
21 that would minimize these potential impacts to soils. Erosion control measures would be
22 implemented during construction in accordance with Condition 9.1 and 9.4. Conditions 9.1 and
23 9.4 require the certificate holder to, during construction, implement and conduct ~~monthly~~
24 inspections of erosion and sediment control measures and best management practices in
25 accordance with the DEQ-approved National Pollutant Discharge Elimination System
26 Construction Stormwater Discharge General Permit (NPDES) 1200-C. Measures and best
27 management practices to be implemented during facility construction, as required under the
28 NPDES 1200-C permit, are provided in the draft Erosion and Sediment Control Plan provided in
29 Attachment F of the Final Order on Amendment 1.¹⁹ 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,
32 monitor, inspect and maintain areas of disturbance and ensure that sediment control measures
33 are sufficient for erosion control.

34

35 Potential adverse impacts to soils could occur during construction and operation from leakage
36 or spills from power driven equipment or from oil-containing equipment (transformers). For

¹⁸ CGS RFA 1 Exl 2018-02-14. p I-5.

¹⁹ CGS RFA 1 Exl 2018-02-14. 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 these reasons, Council previously imposed Condition 5.9 and 10.36 requiring the certificate
2 holder to, during construction and operation, develop and implement a Spill Prevention Control
3 and Countermeasures (SPCC) Plan.²⁰ The certificate holder describes that the SPCC plans
4 require oil-containing equipment or containers with a volume of 55 gallons or greater to be
5 maintained within secondary containment, and require containment structures to be kept
6 empty of liquids and other material to provide maximum containment capacity. In addition, the
7 certificate holder has developed and maintains Oil Spill Response Procedures, which are
8 included with the SPCC plan. The Council found that development and implementation of a
9 construction and operational SPCC Plan, as required through existing site certificate conditions,
10 would minimize potential adverse impacts to soils during a spill event.

11
12 Potential adverse impacts to soils could occur during disposal or discharge of solar panel
13 washwater during solar panel washing. In AMD1, the certificate holder included a request to
14 modify its Water Pollution Control Facility (WPCF) permit application to allow disposal through
15 onsite evaporation and seepage. Council has previously imposed this as a condition. The
16 certificate holder maintains a WPCF permit (100189), issued by DEQ but governed by the site
17 certificate. The WPCF currently includes conditions applicable to the disposal of wastewater
18 from washing equipment and vehicles, as well as washing concrete truck chutes and exteriors.
19 In the final order on AMD 1, the Council required the certificate holder to modify the WPCF
20 permit to include the disposal of solar panel washwater (Condition 10.28).

21
22 ~~Council previously imposed erosion control measures to be implemented during construction; Conditions 9.1 through 9.5 require the certificate holder to conduct inspections of erosion and sediment control measures and best management practices in compliance with the DEQ approved National Pollutant Discharge Elimination System Construction Stormwater Discharge General Permit (NPDES) 1200-C. Condition 9.5 requires the certificate holder to monitor, inspect, and maintain areas of disturbance to ensure that sediment control measures are sufficient for erosion control during operation of the Carty Solar Farm. The Council also imposed Conditions 5.9 and 10.36 to develop and implement a Spill Prevention Control and Countermeasures (SPCC) Plan during construction and operations, and amended Condition 10.28 in the Final Order on Amendment 1 requiring the Certificate Holder to modify its WPCF permit to allow disposal of solar panel washwater through onsite evaporation and seepage. Condition~~

²⁰ 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.

1 ~~10.28 also requires that the certificate holder comply with the requirements of the WPCF. Based~~
2 ~~on the proposed WPCF permit modification and DEQ's recommended condition, the Council~~
3 ~~amended Condition 10.28 to require the WPCF permit be modified to include the allowing of~~
4 ~~discharge of washwater used for the washing of solar panels, once constructed, prohibit the use~~
5 ~~of detergents, chemicals, soaps or heated water, and prohibits any soil erosion or runoff as a~~
6 ~~result of the Carty Solar Farm, with a 30 day requirement for addressing any soil erosion issues.~~
7 ~~No changes to these conditions were requested by the applicant in RFA3.~~

8

9 Conclusions of Law

10 Based on the reasoning discussed above, and subject to continued compliance with the existing
11 conditions, the Department recommends that Council find that the facility, with proposed
12 ~~changes~~construction deadline extension, would continue to comply with the Council's Soil
13 Protection standard.

14

15 III.E. Land Use: OAR 345-022-0030

16

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

20

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

22 ***

23

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

26

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

31

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

36

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

41

42 (3) *As used in this rule, the "applicable substantive criteria" are criteria from the affected*
43 *local government's acknowledged comprehensive plan and land use ordinances that are*
44 *required by the statewide planning goals and that are in effect on the date the applicant*

1 *submits the application. If the special advisory group recommends applicable*
2 *substantive criteria, as described under OAR 345-021-0050, the Council shall apply them.*
3 *If the special advisory group does not recommend applicable substantive criteria, the*
4 *Council shall decide either to make its own determination of the applicable substantive*
5 *criteria and apply them or to evaluate the proposed facility against the statewide*
6 *planning goals.*

7
8 (4) *The Council may find goal compliance for a proposed facility that does not otherwise*
9 *comply with one or more statewide planning goals by taking an exception to the*
10 *applicable goal. Notwithstanding the requirements of ORS 197.732, the statewide*
11 *planning goal pertaining to the exception process or any rules of the Land Conservation*
12 *and Development Commission pertaining to the exception process, the Council may take*
13 *an exception to a goal if the Council finds:*

14
15 (a) *The land subject to the exception is physically developed to the extent that the land is*
16 *no longer available for uses allowed by the applicable goal;*
17 (b) *The land subject to the exception is irrevocably committed as described by the rules*
18 *of the Land Conservation and Development Commission to uses not allowed by the*
19 *applicable goal because existing adjacent uses and other relevant factors make uses*
20 *allowed by the applicable goal impracticable; or*
21 (c) *The following standards are met:*
22
23 (A) *Reasons justify why the state policy embodied in the applicable goal should not*
24 *apply;*
25 (B) *The significant environmental, economic, social and energy consequences*
26 *anticipated as a result of the proposed facility have been identified and adverse*
27 *impacts will be mitigated in accordance with rules of the Council applicable to*
28 *the siting of the proposed facility; and*
29 (C) *The proposed facility is compatible with other adjacent uses or will be made*
30 *compatible through measures designed to reduce adverse impacts.*
31 ***

32 **Findings of Fact**

33 The Council must apply the Land Use standard in conformance with the requirements of ORS
34 469.504. Under ORS 469.504(1)(b)(B), the Council may find compliance with statewide planning
35 goals if the Council finds that the amendment request "...does not comply with one or more of
36 the applicable substantive criteria as described in section (3), the facility otherwise complies
37 with the statewide planning goals or an exception to any applicable statewide planning goal is
38 justified under section." Components applicable to the construction deadline extension request
39 were previously approved under ORS 469.504(1)(b)(B) because Council took an exception to
40 Goal 3 for the Carty Solar Farm.

41
42 The analysis area for potential land use impacts, as defined in the project order, is the area
43 within and extending ½-mile from the site boundary, ~~as amended~~.

1 Components approved in the Final Order on Amendment 1 which have not yet been
2 constructed include: a 50 MW solar photovoltaic unit, 5 interconnection options, and
3 temporary construction laydown and parking areas (Carty Solar Farm); 34.5 kV transmission line
4 with 5 routing options; and, site boundary changes. The components proposed in the
5 amendment request would be located entirely within Morrow County; therefore, Morrow
6 County is the affected local government for purposes of the evaluation necessary for
7 compliance with the Council's Land Use standard. The Council appointed the Morrow County
8 Court, the governing body for Morrow County, as a Special Advisory Group (SAG), during the
9 application phase, on November 19, 2009. On January 9, 2017, the Morrow County Court
10 became known as the Morrow County Board of Commissioners. Because the change in
11 governing body did not result in a substantial change in scope of authority, the 2009
12 appointment remains in effect for subsequent amendment proceedings with proposed
13 components located within Morrow County. The applicable substantive criteria include
14 provisions from Morrow County Zoning Ordinance (MCZO) and the acknowledged 2016
15 Morrow County Comprehensive Plan.

17 **III.E.1. Local Applicable Substantive Criteria**

18 The Carty Solar Farm would be located within land zoned Exclusive Farm Use (EFU) and General
19 Industrial (MG), as presented in RFA1 Exhibit K, Figure K-1. Therefore, the applicable
20 substantive criteria for which the certificate holder must comply are presented in Table 1,
21 *Applicable Substantive Criteria* below.

22 **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

Table 1: Morrow County Applicable Substantive Criteria

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 In RFA3, the certificate holder describes that there were no applicable changes to the MCZO
3 that would apply to the facility. To verify these representations, the Department evaluated the
4 applicable conditional uses and requirements in EFU and MG zoned land to determine the
5 applicability of the changes, as presented in Table 2 below.

Table 2: Morrow County Zoning Ordinance – Evaluation of Changes Applicable to RFA³¹

Final Order on AMD1 (2018)		Request for Amendment <u>31</u> (2021)		Rely on 2018 Final Order on AMD1 or Changes Evaluated in this order?			
Morrow County Zoning Ordinance (MCZO)							
Article 1 – Introductory Provisions							
Section	Title	No Change		Rely on Final Order on Amendment 1			
Section 1.050	Zoning Permit						
Article 3 – Use Zones							
Section 3.010 Exclusive Farm Use, EFU Zone (Updated 11-01-2018)							
Section	Title	Section	Title	Changes evaluated in section below			
Section D Conditional Uses Permitted	(14) Commercial utility facilities for the purposes of generating power for public use by sale.	Section C Condition Uses	(24) Photovoltaic solar power generation facilities as commercial utility facilities for the purpose of generating power for public use by sale subject to Subsection K.3				
NA	NA	Section K Commercial Facilities for Generating Power	(3) Photovoltaic Solar Power Generation Facility	Changes evaluated in Section III.E.3 – MCZO not yet updated to reflect LCDC 2019 administrative rule amendment, applies directly			
Section G	Dimensional Standards	Section L	Land Divisions	Changes evaluated, but were a reorganization and did not result in substantive changes. Rely on Final Order on Amendment 1			
Section H	Yards	Section M	Yards				
Section I	Transportation Impacts	Section N	Transportation Impacts				
Section 3.070	General Industrial Zone, MG						

Table 2: Morrow County Zoning Ordinance – Evaluation of Changes Applicable to RFA³¹

Final Order on AMD1 (2018)		Request for Amendment ³¹ (2021)		Rely on 2018 Final Order on AMD1 or Changes Evaluated in this order?
Section 3.070(A) – (E)	Uses Permitted Outside, Use Limitations, Dimension Requirements, Transportation Impacts		No change	Rely on Final Order on Amendment 1
Section 3.200	Significant Resource Overlay Zone		No Change	Rely on Final Order on Amendment 1
Section 3.300	Historic Buildings and Sites		No Change	Rely on Final Order on Amendment 1
<i>Article 4 – Supplementary Provisions</i>				
Section 4.020	Sight Distance		No Change	Rely on Final Order on Amendment 1
Section 4.040	Off-Street Vehicle Parking Requirements		No Change	Rely on Final Order on Amendment 1
Section 4.035	Permit Requirements for Land Use Development		New	Changes evaluated, but were a reorganization and did not result in substantive changes. Rely on Final Order on Amendment 1
Section 4.050	Off-Street Parking and Loading		No Change	Rely on Final Order on Amendment 1
Section 4.060	Design and Improvement Standards – Parking Lots	Section 4.060	Addition of new criteria and re-ordering of existing criteria A-I: New: <i>D. Artificial lighting which may be provided</i>	Changes evaluated and determined not applicable to facility. Rely on

Table 2: Morrow County Zoning Ordinance – Evaluation of Changes Applicable to RFA³¹

Final Order on AMD1 (2018)		Request for Amendment <u>31</u> (2021)		Rely on 2018 Final Order on AMD1 or Changes Evaluated in this order?
			<i>shall not shine or create glare in any residential zone or on any adjacent dwelling.</i>	Final Order on Amendment 1
Section 4.165	Site Plan Review	No Change		Rely on Final Order on Amendment 1
Article 6 – Conditional Uses				
Section 6.015	Requirements Under a State Energy Facility Site Certificate	No Change		Rely on Final Order on Amendment 1
Section 6.020	General Criteria	No Change		Rely on Final on Amendment 1
Section 6.025	Resource Zone Standards for Approval	No Change		Rely on Final on Amendment 1
Section 6.030	General Conditions	No Change		Rely on Final on Amendment 1
Section 6.040	Permits and Improvements Assurance	No Change		Rely on Final on Amendment 1
Morrow County Comprehensive Plan				
Agricultural Policy 1 and 4 Energy Policies 3 and 9 Economic Element Policy 2A, 3A, 4B, 5A and 6C		No Change		Rely on Final on Amendment 1

1

1 IV.E.1.1 Morrow County Zoning Ordinance (MCZO)

2

3 The following analysis addresses the changes in MCZO applicable substantive criteria, as

4 identified in Table 2 above.

5

6 MCZO Section 3.010 Exclusive Farm Use, EFU Zone

7

8 *Section 3.010.C. CONDITIONAL USES PERMITTED.*

9

10 *In an EFU Zone, the following uses are permitted subject to county review, any specific*

11 *standards for the use set forth in Section D, Article 6, the general standards for the zone,*

12 *and any other applicable standards and review process in the ordinance:*

13

14 *Section 3.010(C)(24) Photovoltaic solar power generation facilities as commercial*

15 *utility facilities for the purpose of generating power for public use by sale subject to*

16 *Subsection K(3).*

17

18 MCZO Section 3.010(C)(24) identifies “Photovoltaic solar power generation facilities as

19 commercial utility facilities for the purpose of generating power for public use by sale subject to

20 MCZO Section 3.010(K)(3)” as a conditionally permitted use in EFU-zoned land. To determine

21 whether the facility may be evaluated under this category, the Department evaluated MCZO

22 Article 1 (Definitions) and Article 3. MCZO Article 1 and Article 3 Section 3.010 do not contain

23 an explicit definition of “commercial utility facilities for the purposes of generating power for

24 public use by sale”; however, MCZO Article 1 defines “Commercial Power Generating Facility”

25 as a facility for the production of energy and its related or supporting facilities that: (1)

26 generate energy using means such as a solar power.. ; (2) is intended to provide energy for sale;

27 and (3) does not include net metering... While the MCZO Article 1 definition of “Commercial

28 Power Generating Facility” is not exactly mirrored in MCZO Section 3.010(C)(24), it is consistent

29 with the terms used in MCZO Section 3.010(C)(24) (i.e. generating power from solar, for sale).

30 The MCZO Article 1 definition and MCZO Section 3.010(C)(24) terms are also consistent with

31 the purpose and function of the facility. Therefore, the Department recommends Council find

32 that the Carty Solar Farm is a conditionally permissible use in EFU zoned land under MCZO

33 Section 3.010(C)(24).

34

35 MCZO Section 3.010(C)(24) establishes that the use is subject to any specific standards set forth

36 in MCZO Section 3.010(D) and (K)(3), Article 6, and any general standards for the zone. As

37 presented in Table 2, the Department evaluated MCZO Article 3, 4 and 6 within the scope of

38 RFA1, which is limited to an evaluation of changes in fact or law that may affect the Council’s

39 previous evaluation of compliance with MCZO applicable substantive criteria. Based upon

40 review, MCZO Section 3.010(K)(3), (M)-(N), and Section 4.060 have changed since Council’s

41 2018 Final Order on Amendment 1. MCZO Section 3.010(K)(3) establishes the minimum

42 standards for photovoltaic solar power generation facilities within EFU-zoned land, however,

43 the criteria have not been updated to be consistent with LCDC’s 2019 amendments to OAR 660-

44 033-0130(38). Due to the more recent changes in the OAR, not reflected in the current MCZO,

1 the Department recommends that the amendment request be assessed under the applicable
2 OAR 660-033-0130(38), as presented in Section III.E.2 of this order.

3

4 III.E.2. Directly Applicable State Statutes and Administrative Rules

5

6 Oregon Administrative Rules

7

8 *OAR 660-033-0130(5) and (38) – Standards for Approval for Photovoltaic Solar Power*
9 *Generation Facility in Exclusive Farm Use Zones*

10 LCDC adopted specific rules for photovoltaic solar power generation facilities to address the
11 specific impacts of these facilities on agricultural lands. LCDC's solar rules establish specific
12 requirements for facilities that would use, occupy or cover 12 or more acres of high-value
13 farmland, or 20 acres of arable land, from use as a commercial agricultural enterprise under
14 which an exception is required to be taken pursuant to ORS 197.732 and OAR Chapter 660,
15 division 4.

16

17 The Carty Solar Farm requires an exception to Statewide Planning Goal 3, which was granted by
18 Council in the 2018 Final Order on Amendment 1. The Carty Solar Farm will be located on soils
19 meeting the definition of "arable land" and, based on its location within the Columbia Valley
20 American Viticulture Area and meeting certain requirements for elevation, slope, and aspect,
21 portions of the energy facility would also be located on "high-value farmland" pursuant to ORS
22 195.300(10)(f)(C).²¹ The facility will permanently occupy approximately 57 acres of high-value
23 farmland²².

24

25 In 2019, LCDC revised OAR 660-033-0130(38) to add a specific provision for photovoltaic solar
26 facilities under the rule (f) and changed the prior OAR-660-033-0130(38)(f) to the current (g),
27 (h) and (i) of the same rule. The only provisions of the 2019 OAR 660-033-0130(38) that have
28 significantly changed since the approval of the original site certificate are the addition of

²¹ Pursuant to OAR 660-033-0130(38)(a) defines "arable land" as "land in a tract that is predominantly cultivated or, if not currently cultivated, predominantly comprised of arable soils." OAR 660-033-0130(38)(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."

²² CGSAMD1 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.

1 (38)(h)(E) and (38)(h)(F). All other requirements under the previous OAR (38)(f) are covered in
2 the current OAR (38)(g),(h) and (i). A review of applicable changes in OAR 660-033-0130(38)(f)-
3 (i) since the site certificate was issued, are presented below.

4
5 As relevant to the energy facility, changes to OAR 660-033-0130(38)(f) creates specific
6 definition for a “photovoltaic solar power generation facility” subject to the provisions of the
7 rule.

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

28
29 For the purposes of this amendment request, the Carty Solar Farm meets the updated
30 definition of a “photovoltaic solar power generation facility” for portions of the facility within
31 Morrow County, where the generating facilities will be located.

32
33 OAR 006 033 0130(38)(g) requires that a photovoltaic solar power generating facility that uses,
34 occupies or covers more than 12 acres satisfy the provisions of subsection (38)(h)(H) (see
35 below) or meet the requirements of (38)(g)(B) through meeting the requirements of an
36 approved county dual use development plan.

37
38 *(g) For high-value farmland described at ORS 195.300(10), a photovoltaic solar
39 power generation facility shall not use, occupy, or cover more than 12 acres unless:*

40
41 *(A) The provisions of paragraph (h)(H) are satisfied; or*

42
43 *(B) A county adopts, and an applicant satisfies, land use provisions authorizing
44 projects subject to a dual-use development plan. Land use provisions adopted by*

1 *a county pursuant to this paragraph may not allow a project in excess of 20*
2 *acres. Land use provisions adopted by the county must require sufficient*
3 *assurances that the farm use element of the dual-use development plan is*
4 *established and maintained so long as the photovoltaic solar power generation*
5 *facility is operational or components of the facility remain on site. The provisions*
6 *of this subsection are repealed on January 1, 2022.*

7
8 The approved facility will use, occupy or cover over 12 acres of EFU zoned land within Morrow
9 County. OAR 660-033-0130(38)(g) established that for projects that would be sited on 12 acres
10 or more of high-value farmland, an exception would be taken pursuant to ORS 197.732 and
11 OAR Chapter 660, division 4. The Council previously determined that an exception to Goal 3
12 was justified under ORS 469.504(2)(c) and OAR 345-022-0030(4). There have been no changes
13 in fact or law applicable to the goal exception or solar site. Therefore, the Department
14 recommends that Council's previous exception taken for Goal 3 should be maintained for this
15 order.²³

16
17 Review under OAR 660-033-0130(38)(h) applies to this amendment request. The provisions of
18 (h)(A) through(D) are covered under the prior (38)(f) and remain unchanged. The amendment
19 request does, however, require analysis under Subsection (38)(h)(E) and (F) to determine
20 applicability. Potentially applicable, new sections of (38)(h) are presented and analyzed below:

21
22 *(h) The following criteria must be satisfied in order to approve a photovoltaic solar*
23 *power generation facility on high-value farmland described at ORS 195.300(10).*

24
25 *(E) Except for electrical cable collection systems connecting the photovoltaic solar*
26 *generation facility to a transmission line, the project is not located on those high-*
27 *value farmland soils listed in OAR 660-033-0020(8)(a);*

28
29 *(F) The project is not located on those high-value farmland soils listed in OAR*
30 *660-033-0020(8)(b)-(e) or arable soils unless it can be demonstrated that:*

31 *(i) Non high-value farmland soils are not available on the subject tract;*

32
33 *(ii) Siting the project on non high-value farmland soils present on the subject*
34 *tract would significantly reduce the project's ability to operate successfully; or*

35
36 *(iii) The proposed site is better suited to allow continuation of an existing*
37 *commercial farm or ranching operation on the subject tract than other*
38 *possible sites also located on the subject tract, including those comprised of*
39 *non high-value farmland soils; and*

²³ This order incorporates by reference the facts presented in RFA1 Exhibit K (K-37 – K-43) and findings of fact, reasoning and conclusions of law as presented in the Final Order on Amendment 1 (pp. 66-73).

1 Because (38)(h)(E) and (38)(h)(F) include additional considerations not in place at the time the
2 site certificate was approved, they are presented below for Council review:

3
4 *(E) Except for electrical cable collection systems connecting the photovoltaic solar*
5 *generation facility to a transmission line, the project is not located on those high-value*
6 *farmland soils listed in OAR 660-033-0020(8)(a);*

7
8 OAR 660-033-0020(8)(a) says:

9 *(8)(a) "High-Value Farmland" means land in a tract composed predominantly of*
10 *soils that are:*

11 *(A) Irrigated and classified prime, unique, Class I or II; or*
12 *(B) Not irrigated and classified prime, unique, Class I or II.*

13
14 OAR 660-033-0130(38)(h)(E) requires that the certificate holder demonstrate that the facility
15 would not be located on high-value soils as listed in OAR 660-033-0020(8)(a). The facility would
16 not occupy land that meets the definition of (8)(a) as it is Class VIIe. Therefore, the changes
17 pursuant to OAR 660-033-0130(38)(h)(E) are not applicable to this amendment request.

18
19 *(F) The project is not located on those high-value farmland soils listed in OAR 660-033-*
20 *0020(8)(b)-(e) or arable soils unless it can be demonstrated that:*

21
22 *(i) Non high-value farmland soils are not available on the subject tract;*

23
24 *(ii) Siting the project on non high-value farmland soils present on the subject tract*
25 *would significantly reduce the project's ability to operate successfully; or*

26
27 *(iii) The proposed site is better suited to allow continuation of an existing*
28 *commercial farm or ranching operation on the subject tract than other possible sites*
29 *also located on the subject tract, including those comprised of non high-value*
30 *farmland soils; and*

31
32 OAR 660-033-0130(38)(h)(F) requires that the certificate holder, if located on high-value
33 farmland soils, as defined in OAR 660-033-0020(8)(b)-(e)²⁴, or arable soils demonstrate that: 1)

²⁴ (8)(a) "High-Value Farmland" means land in a tract composed predominantly of soils that are: (A) Irrigated and classified prime, unique, Class I or II; or (B) Not irrigated and classified prime, unique, Class I or II.
(b) In addition to that land described in subsection (a) of this section, high-value farmland, if outside the Willamette Valley, includes tracts growing specified perennials as demonstrated by the most recent aerial photography of the Agricultural Stabilization and Conservation Service of the U.S. Department of Agriculture taken prior to November 4, 1993. "Specified perennials" means perennials grown for market or research purposes

1 non high-value farmland soils are not available on the subject tract; 2) siting the project on non
2 high-value farmland soils, if present, would significantly impact the project's ability to operate;
3 or 3) the site is better suited than other possible sites because it would allow continued
4 operation of existing farmland. Based on review of the high-value farmland soils definition
5 under OAR 660-033-0020(8)(b)-(e), the facility would not impact these type of soils and
6 therefore the evaluation is based on impacts to arable soils, which was previously evaluated by
7 Council in the 2018 Final Order on Amendment 1. Based on the previous evaluation, Council
8 found that sufficient evidence had been provided on the record of RFA1 to find that the Carty
9 Solar Farm site is better suited than other lands within the subject tract to allow continuation
10 of existing farm operations, and the requirements under OAR 660-033-0130(38)(h)(F)(iii) were
11 satisfied.

12
13 Further provisions of OAR 660-033-0130(38)(h) include:
14

including, but not limited to, nursery stock, berries, fruits, nuts, Christmas trees, or vineyards, but not including seed crops, hay, pasture or alfalfa;

(c) In addition to that land described in subsection (a) of this section, high-value farmland, if in the Willamette Valley, includes tracts composed predominantly of the following soils in Class III or IV or composed predominantly of a combination of the soils described in subsection (a) of this section and the following soils:

(A) Subclassification IIIe, specifically, Bellpine, Bornstedt, Burlington, Briedwell, Carlton, Cascade, Chehalem, Cornelius Variant, Cornelius and Kinton, Helvetia, Hillsboro, Hult, Jory, Kinton, Latourell, Laurelwood, Melbourne, Multnomah, Nekia, Powell, Price, Quatama, Salkum, Santiam, Saum, Sawtell, Silverton, Veneta, Willakenzie, Woodburn and Yamhill;

(B) Subclassification IIIw, specifically, Concord, Conser, Cornelius Variant, Dayton (thick surface) and Sifton (occasionally flooded);

(C) Subclassification IVe, specifically, Bellpine Silty Clay Loam, Carlton, Cornelius, Jory, Kinton, Latourell, Laurelwood, Powell, Quatama, Springwater, Willakenzie and Yamhill; and

(D) Subclassification IVw, specifically, Awbrig, Bashaw, Courtney, Dayton, Natroy, Noti and Whiteson.

(d) In addition to that land described in subsection (a) of this section, high-value farmland, if west of the summit of the Coast Range and used in conjunction with a dairy operation on January 1, 1993, includes tracts composed predominantly of the following soils in Class III or IV or composed predominantly of a combination of the soils described in subsection (a) of this section and the following soils:

(A) Subclassification IIIe, specifically, Astoria, Hembre, Knappa, Meda, Quillayutte and Winema;

(B) Subclassification IIIw, specifically, Brenner and Chitwood;

(C) Subclassification IVe, specifically, Astoria, Hembre, Meda, Nehalem, Neskowin and Winema; and

(D) Subclassification IVw, specifically, Coquille.

(e) In addition to that land described in subsection (a) of this section, high-value farmland includes tracts located west of U.S. Highway 101 composed predominantly of the following soils in Class III or IV or composed predominantly of a combination of the soils described in subsection (a) of this section and the following soils:

(A) Subclassification IIIw, specifically, Ettersburg Silt Loam and Crofland Silty Clay Loam;

(B) Subclassification IIIe, specifically, Klooqueh Silty Clay Loam and Winchuck Silt Loam; and

(C) Subclassification IVw, specifically, Huffling Silty Clay Loam.

(f) Lands designated as "marginal lands" according to the marginal lands provisions adopted before January 1, 1993, and according to the criteria in former [ORS 215.247 \(Transport of biosolids to tract of land for application\)](#) (1991), are excepted from this definition of "high-value farmlands";

(H) A photovoltaic solar power generation facility may be sited on more than 12 acres of high-value farmland described in ORS 195.300(10)(f)(C) without taking an exception pursuant to ORS 197.732 and OAR chapter 660, division 4, provided the land:

- (i) Is not located within the boundaries of an irrigation district;
- (ii) Is not at the time of the facility's establishment, and was not at any time during the 20 years immediately preceding the facility's establishment, the place of use of a water right permit, certificate, decree, transfer order or ground water registration authorizing the use of water for the purpose of irrigation;
- (iii) Is located within the service area of an electric utility described in ORS 469A.052(2);
- (iv) Does not exceed the acreage the electric utility reasonably anticipates to be necessary to achieve the applicable renewable portfolio standard described in ORS 469A.052(3); and
- (v) Does not qualify as high-value farmland under any other provision of law.

OAR 660 033 0130(38)(h)(H) applies to this amendment request and represents a change in law since the Council's previous analysis. Based on review of the record of the RFA3 and Final Order on Amendment 1, the facility site is not located within the boundaries of an irrigation district, has not had any history of water rights, does not exceed the acreage reasonably needed to achieve renewable portfolio standards, and does not qualify as high-value farmland under any other provision of law [facility site is high value farmland only under OAR 197.732(1)(f)(C)]. Therefore, based on evidence on the record of the site certificate proceedings for this facility, the Department recommends Council find that the Carty Solar Farm would comply with OAR 660 033 0130(38)(h)(H).

Conclusions of Law

Based on the foregoing recommended findings and the evidence in the record, and subject to compliance with existing site certificate conditions, the Department recommends Council find that the facility, with proposed construction deadline extensions, continues to comply with the 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. References in this rule to protected areas designated under federal or state statutes or regulations are to the designations in effect as of May 11, 2007:

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

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

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

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

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

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

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

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

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

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

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

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

(m) Agricultural experimental stations established by the College of Agriculture, Oregon State University, including but not limited to: Coastal Oregon Marine Experiment Station, Astoria Mid-Columbia Agriculture Research and Extension

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

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

23 Findings of Fact

25 Impacts to protected areas are evaluated based on identification of protected areas, pursuant
26 to OAR 345-022-0040, within the analysis area and an evaluation of the following potential
27 impacts during facility construction and operation: excessive noise, increased traffic, water use,
28 wastewater disposal, visual impacts of facility structures or plumes, and visual impacts from air
29 emissions.

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

35 In their analysis conducted for AMD1, the certificate holder identified nine protected areas
36 within the analysis area. As a result of the research conducted for RFA3, the certificate holder
37 identified a protected area resource that is not new, but was missed in the analysis submitted
38 for RFA1: Arlington Park/Arlington Wayside. The Arlington Park/Wayside meets the Protected
39 Areas designation criteria under OAR 345-022-0040(1)(h) and is an undeveloped 219-acre
40 parcel of land owned by the OPRD (OPRD 2014).²⁵ The parcel is located between the Columbia

²⁵ Oregon Parks and Recreation Department (OPRD). 2014. Oregon State Parks – 2014.

1 River and I-84, approximately 2 miles east of Arlington and approximately 15 miles northwest of
2 the area subject to RFA3. These 10 protected areas are presented in Table 3, *Protected Areas*
3 *within the Analysis Area and Distance from Site Boundary* below.
4

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(l)(o)
Horn Butte Area of Critical Environmental Concern	7.1 miles west	OAR 345-022-0040(l)(o)
Lindsay Prairie Preserve	7.8 miles southeast	OAR 345-022-0040(l)(o)
Umatilla National Wildlife Refuge	9.1 miles north	OAR 345-022-0040(l)(d)
Willow Creek Wildlife Area	10.0 miles northwest	OAR 345-022-0040(l)(p)
Coyote Springs Wildlife Area	11.7 miles northeast	OAR 345-022-0040(l)(p)
Irrigon Wildlife Area	18.4 miles northeast	OAR 345-022-0040(l)(p)
Irrigon Hatchery	19.2 miles northeast	OAR 345-022-0040(l)(f)
Umatilla Fish Hatchery	19.2 miles northeast	OAR 345-022-0040(l)(f)
Arlington Park/Wayside	15 miles northwest	OAR 345-022-0040(1)(h)

5
6 In their Final Order on AMD1, Council found that the Carty Solar Farm is not located in or near
7 any of the Protected Areas listed in OAR 345-022-0040, and determined that “the facility, as
8 amended, is not likely to result in significant adverse impacts to any protected area and
9 complies with the Protected Areas Standard”.

10
11 As part of their updated assessment for RFA3, the certificate holder reviewed the following
12 databases to confirm the presence of new or previously unevaluated Protected Areas that
13 occur within the 20-mile analysis area from the area subject to RFA3:

14 • U.S. Department of Interior, Bureau of Land Management, Areas of Critical
15 Environmental Concern (BLM 2021);²⁶
16

²⁶ U.S. Department of Interior. Bureau of Land Management. 2021. Areas of Critical Environmental Concern. Published November 16, 2021. Available at: <http://www.blm.gov/or/gis/data.php> Accessed by the Department: 2022-05-13.

- U.S. Geological Survey (USGS) Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PAD-US) 2.1: U.S. Geological Survey (USGS 2020);²⁷
- ODFW, Oregon Hatcheries (ODFW 2006);²⁸
- ODFW, Wildlife Areas (ODFW 2021a);²⁹
- Oregon Parks and Recreation Department (OPRD). Oregon State Parks (OPRD 2014);³⁰
- Institute of Natural Resources – Portland, Natural Areas (Institute of Natural Resources 2021);³¹ and
- Google search engine and Google Maps to verify the location of agricultural experimental stations established by the College of Agriculture (as listed under OAR 345-022-0040(1)(m)).

For RFA3, the certificate holder also conducted updated reviews under each category of protected areas. Protected Areas that occur within the 20-mile analysis area from the area subject to RFA3 as identified in Table 4 below.

Table 4: Protected Areas Databases Review Conducted for RFA3

OAR 345-022-0040	References
(a) National parks, including but not limited to Crater Lake National Park and Fort Clatsop National Memorial;	U.S. Geological Survey (USGS) Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PAD-US) 2.1: U.S. Geological Survey (USGS 2020).
(b) National monuments, including but not limited to John Day Fossil Bed National Monument, Newberry National Volcanic Monument and Oregon Caves National Monument;	U.S. Geological Survey (USGS) Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PAD-US) 2.1: U.S. Geological Survey (USGS 2020).
(c) Wilderness areas established pursuant to The Wilderness Act, 16 U.S.C. 1131 et seq. and areas recommended for designation as wilderness areas pursuant to 43 U.S.C. 1782;	U.S. Geological Survey (USGS) Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PAD-US) 2.1: U.S. Geological Survey (USGS 2020).
(d) National and state wildlife refuges, including but not limited to Ankeny, Bandon Marsh, Baskett Slough, Bear Valley, Cape Meares, Cold Springs,	U.S. Geological Survey (USGS) Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PAD-US) 2.1: U.S. Geological Survey (USGS 2020).

²⁷ U.S. Geological Survey (USGS) Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PAD-US) 2.1: U.S. Geological Survey. Available at: <https://doi.org/10.5066/P92QM3NT> Accessed by the Department: 2022-05-13.

²⁸ ODFW. 2006. Oregon Hatcheries. May 3, 2006. Digital Data, Version 3.

²⁹ ODFW. 2021. Wildlife Areas. Published June 22, 2021. Available at: <https://nrimp.dfw.state.or.us/DataClearinghouse/default.aspx?p=202&XMLname=861.xml> Accessed by the Department: 2022-05-13.

³⁰ Oregon Parks and Recreation Department (OPRD). 2014. Oregon State Parks – 2014. Accessed at: <https://spatialdata.oregonexplorer.info/osdl-geoportal/catalog/search/resource/details.page?uuid=%7B9ED99BB8-3640-4819-86F8-0CBFD377124F%7D>

³¹ Institute of Natural Resources – Portland. 2021. Oregon's Natural Areas. Biodiversity Data Manager. Digital Data.

Deer Flat, Hart Mountain, Julia Butler Hansen, Klamath Forest, Lewis and Clark, Lower Klamath, Malheur, McKay Creek, Oregon Islands, Sheldon, Three Arch Rocks, Umatilla, Upper Klamath, and William L. Finley;	of the United States (PAD-US) 2.1: U.S. Geological Survey (USGS 2020).
(e) National coordination areas, including but not limited to Government Island, Ochoco and Summer Lake;	U.S. Geological Survey (USGS) Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PAD-US) 2.1: U.S. Geological Survey (USGS 2020).
(f) National and state fish hatcheries, including but not limited to Eagle Creek and Warm Springs;	U.S. Geological Survey (USGS) Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PAD-US) 2.1: U.S. Geological Survey (USGS 2020). ODFW, Oregon Hatcheries (ODFW 2006).
(g) National recreation and scenic areas, including but not limited to Oregon Dunes National Recreation Area, Hell's Canyon National Recreation Area, and the Oregon Cascades Recreation Area, and Columbia River Gorge National Scenic Area;	U.S. Geological Survey (USGS) Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PAD-US) 2.1: U.S. Geological Survey (USGS 2020). Oregon Parks and Recreation Department (OPRD). Oregon State Parks (OPRD 2014).
(h) State parks and waysides as listed by the Oregon Department of Parks and Recreation and the Willamette River Greenway;	Oregon Parks and Recreation Department (OPRD). Oregon State Parks (OPRD 2014).
(i) State natural heritage areas listed in the Oregon Register of Natural Heritage Areas pursuant to ORS 273.581;	Institute of Natural Resources – Portland, Natural Areas (Institute of Natural Resources 2021).
(j) State estuarine sanctuaries, including but not limited to South Slough Estuarine Sanctuary, OAR chapter 142;	Not applicable. OAR chapter 142 governs use of portions of ocean shore as well as areas adjacent to state parks that the State Land Board has designated as a Marine Reserve or Marine Protected Area, none of which occur near the Carty Solar Farm.
(k) Scenic waterways designated pursuant to ORS 390.826, wild or scenic rivers designated pursuant to 16 U.S.C. 1271 et seq., and those waterways and rivers listed as potentials for designation;	U.S. Geological Survey (USGS) Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PAD-US) 2.1: U.S. Geological Survey (USGS 2020).
(l) Experimental areas established by the Rangeland Resources Program, College of Agriculture, Oregon State University: the Prineville site, the Burns (Squaw Butte) site, the Starkey site and the Union site;	Certificate Holder used the Google search engine and Google Maps to verify the location of Rangeland Resources Program, College of Agriculture as listed under OAR 345-022-0040(1)(l).
(m) Agricultural experimental stations established by the College of Agriculture, Oregon State University, including but not limited to:	Certificate Holder used the Google search engine and Google Maps to verify the location of agricultural experimental stations established by the College of Agriculture as listed under OAR 345-022-0040(1)(m).

(n) Research forests established by the College of Forestry, Oregon State University, including but not limited to McDonald Forest, Paul M. Dunn Forest, the Blodgett Tract in Columbia County, the Spaulding Tract in the Mary's Peak area and the Marchel Tract;	Certificate Holder used the Google search engine and Google Maps to verify the location of Research forests established by the College of Forestry, Oregon State University as listed under OAR 345-022-0040(1)(n).
(o) Bureau of Land Management areas of critical environmental concern, outstanding natural areas and research natural areas;	U.S. Department of Interior, Bureau of Land Management, Areas of Critical Environmental Concern (BLM 2021).
(p) State wildlife areas and management areas identified in OAR chapter 635, division 8.	ODFW, Wildlife Areas (ODFW 2021a).

1
2 The Department reviewed the information submitted for RFA3, and recommends that Council
3 find that the methods used and sources checked and updated literature and database searches
4 are adequate and sufficient for the identification of additional or new, and already identified
5 Protected Areas under this Council standards.

6
7 The Department verified and reviewed the 10 protected areas identified by the certificate
8 holder in RFA3. While the newly identified resource, "Arlington Park/Wayside" is within the
9 analysis area, and it is true it was not identified as a protected area in AMD1, and the
10 Department has confirmed that the property is owned and managed by OPRD; the Department
11 also recommends that Council find that it does not meet the definition of a protected area
12 under this Council standard. A state park has to be "listed" as a park or wayside by OPRD to be a
13 protected area under the current Council rule. For these reasons, the Department recommends
14 that Council find there are no new protected areas identified within the analysis area since
15 AMD1, and that the analysis and findings under the Final Order on AMD1 are still applicable for
16 RFA3.

17
18 *Potential Impacts on Protected Areas:*

19
20 For reference, findings of facts and reasoning previously relied upon by Council are presented in
21 the subsections below.

22
23 *Potential Noise Impacts*

24
25 The significance of potential noise impacts to identified protected areas is based on the
26 magnitude and likelihood of the impact on the affected human population or natural resource
27 that uses the protected area.³² The nearest protected area, Boardman Research Natural Area, is

³² 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

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. ~~In the Final~~
3 ~~Order on Amendment 1, Council found that~~ ~~I~~the closest protected area ~~was-is~~ the Boardman
4 Research Natural Area, located 2.7 miles from the ~~proposed amended~~ site boundary. Based on
5 the noise and visual impacts assessment conducted in for AMD1, Council also found that the
6 construction of the ~~facility, with proposed changes that included the construction of the solar~~
7 ~~farm, Carty Solar Farm~~ would not be likely to result in significant adverse noise impacts at the
8 Boardman Research Natural Area. Because the other protected areas within the analysis area
9 are located at greater distances from the ~~proposed amended facility site boundary~~ than the
10 Boardman Research Natural Area to the site boundary, the Council also concluded that
11 potential construction-related noise impacts from the ~~facility~~ Carty Solar Farm at the other
12 protected areas would also not likely be potentially significant or adverse. The Department
13 recommends ~~that RFA3 does not propose any changes that would change~~ Council maintain its
14 previous's previous findings under the protected area standard.

15
16 Existing site certificate Condition 13.1 would reduce noise impacts during construction by
17 requiring the use of exhaust mufflers on combustion engine-powered equipment; and requires
18 that the certificate holder establish a noise complaint response system, and provide, upon
19 request, noise complaint records to the Department.

20
21 *Operation*

22
23 The Carty Solar Farm would result in potential maximum overall A-weighted sound power level
24 output of 44 dBA at 400 feet. In RFA1, the certificate holder provided a noise analysis of the
25 Carty Solar Farm including the following sources:

26
27 • 25 inverters at 87 dBA
28 • 25 Step-up transformers at 94 dBA

29
30 The noise modeling analysis conducted for RFA1 for operational noise demonstrated that noise
31 generated by the ~~proposed~~ Carty Solar Farm would be less than 30 dBA, equivalent to the noise
32 level of a soft whisper, at the Boardman Research Natural Area. For these reasons, the Council
33 found that operation of the ~~proposed~~ Carty Solar Farm would not be likely to result in
34 significant adverse noise impacts to any protected areas within the analysis area. RFA3 does not
35 propose any changes to operational noise levels of facility components.

36
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 *Potential Traffic Impacts*

2

3 *Construction and Operation*

4

5 The ~~proposed~~-Carty Solar Farm would generate construction-related traffic, not expected to
6 exceed 400 trips per day. The certificate holder has previously represented that construction-
7 related traffic would utilize I-84 and Tower Road. While each of the nine protected areas may
8 be accessed via I-84, based on the distance from the protected areas to Tower Road, in the
9 Final Order on AMD1, the Council found that construction-related traffic would not be expected
10 to result in significant adverse impacts to any of the protected areas evaluated within the
11 analysis area. Because access roads to protected areas would not be used or impacted, the
12 Council found that construction-related traffic impacts would not be likely to result in a
13 significant adverse traffic impact to protected areas within the analysis area. RFA3 does not
14 propose any changes to traffic volume or primary haul routes to be used during construction
15 and operation.

16 ~~For these reasons, the Department recommends that Council find that RFA3 would not change~~
17 ~~the Council's previous findings for construction or operational traffic impacts associated with~~
18 ~~the solar farm on the identified protected areas in the analysis area.~~

19

20 *Potential Water Use and Wastewater Disposal Impacts*

21

22 *Construction and Operation*

23

24 RFA1 identified that construction and operation of the ~~proposed~~-Carty Solar Farm would utilize
25 water and generate wastewater for disposal. Construction would use approximately 8 million
26 gallons of water primarily for dust suppression, equipment and vehicle washing, and fire
27 suppression obtained from Carty Reservoir ~~and/or a third-party limited water use license, of~~
28 ~~which PGE maintains a water right, through a third-party limited water use license from Oregon~~
29 ~~Department of Water Quality.~~ During operation, the ~~proposed~~-Carty Solar Farm would have
30 minimal water needs, 2 to 5 acre-feet of water per year, for solar panel washing obtained from
31 Carty Reservoir.

32

33 In the ~~final order~~Final Order on AMD1, Council found that water use and wastewater disposal
34 during both construction and operation of the ~~proposed~~-Carty Solar Farm would not result in
35 water withdrawal from a protected area of wastewater disposal to a protected area within the
36 analysis area. Therefore, the Council also found that the ~~proposed~~ Carty Solar Farm would avoid
37 all impacts from water use and wastewater disposal to protected area within the analysis area.
38 These facts have not changed as a result of RFA3 ~~and for these reasons, the Department~~
39 ~~recommends that Council rely on its previous finding that the facility will not have an impact~~
40 ~~from water use or wastewater disposal for any of the protected areas in the analysis area.~~

41

42 *Visual Impacts of Facility Structures*

43

1 The ~~proposed~~ Carty Solar Farm and its supporting facilities would result in visible facility
2 structures including solar modules with a maximum height of 10 feet; inverters with a
3 maximum height of 11 feet; and, a 34.5 kV transmission line with 70-foot-tall wooden poles.
4 For RFA1 and to support its evaluation of potential visual impacts of the ~~proposed~~ Carty Solar
5 Farm and its supporting facilities, the certificate holder completed a zone of visual influence
6 (ZVI) analysis.³³ In the Final Order on AMD1, Council found that visual impacts would not likely
7 result in a significant adverse impact to the identified protected areas. ~~RFA3 does not propose~~
8 ~~any changes to the height, type or visibility of components associated with the Carty Solar~~
9 ~~Farm. For these reasons, the Department recommends that Council find that RFA3 would not~~
10 ~~change the Council's previous findings on potential visual impacts associated with the solar~~
11 ~~farm on the identified protected areas in the analysis area.~~

12

Visual Impacts from Air Emissions

13 There would be no air emissions from the ~~proposed~~ Carty Solar Farm and therefore no related
14 visual impacts. These facts do not change as a result of RFA3.

15

Conclusions of Law

16 Based on the foregoing recommended findings, the Department recommends that Council
17 continue to find that the design, construction and operation of the ~~proposed~~ Carty Solar Farm
18 would not be likely to result in significant adverse impacts to any protected areas, in
19 compliance with the Council's Protected Area standard.

20

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

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

22

- 23 (1) *The site, taking into account mitigation, can be restored adequately to a useful, non-*
24 *hazardous condition following permanent cessation of construction or operation of*
25 *the facility.*
- 26 (2) *The applicant has a reasonable likelihood of obtaining a bond or letter of credit in a*
27 *form and amount satisfactory to the Council to restore the site to a useful, non-*
28 *hazardous condition.*

29

Findings of Fact

30 Per OAR 345-027-0375, for any request for amendment making a decision to grant or deny
31 issuance of an amended site certificate, Council must determine that the preponderance of

³³ PGE Carty RFA No1 RAI Responses. (The Department received the certificate holder's RAI responses via an email on June 29, 2018.)

1 evidence on the record supports the conclusion that the amount of the bond or letter of credit
2 required under OAR 345-022-0050 is adequate.³⁴

3

4 For amendments requesting to extend construction deadlines, the Department and Council
5 evaluate whether there have been “changes in fact or law” since the site certificate or amended
6 site certificate was issued to determine whether, based on changes in fact or law, the facility
7 would continue to satisfy requirements of the standard. For this standard, the Council may,
8 depending on the methods used to evaluate the decommissioning estimate, evaluate whether
9 there have been changes in unit costs or labor rates that would affect the previous site
10 restoration estimate and whether there have been any changes in the certificate holder’s
11 corporate structure that would impact the likelihood that the certificate holder would continue
12 to demonstrate a likelihood of obtaining a bond or letter of credit in the amount necessary for
13 site restoration.

14

15 *Restoration of the Site Following Cessation of Construction or Operation*

16

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

20

21 In RFA3, there are no changes to the methods, tasks, or actions previously evaluated by Council
22 for the decommissioning of the Carty Solar Farm and its supporting facilities. Therefore, the
23 discussion of facility decommissioning is provided for reference, based on Council’s review and
24 approval in RFA1. The Council previously found that the facility site could be restored
25 adequately to a useful, non-hazardous condition following permanent cessation of construction
26 or operation of the facility. The Council previously imposed several conditions to ensure the
27 certificate holder could restore the site to a useful, nonhazardous condition in accordance with
28 the Retirement and Financial Assurance standard, as summarized below:

29

30

31

32

33

34

35

36

37

- Condition 15.1, requires the certificate holder to submit a bond or letter of credit to the State of Oregon, through the Council, in a form and amount satisfactory to the Council to restore Unit 1 of the Carty Generating Station, the Carty Solar Farm and its supporting facilities, and the related and supporting facilities associated with Amendment 2 to a useful nonhazardous condition. [the certificate holder has provided a bond letter of credit for \$23,011,000 (Q1 2021), in accordance with the site certificate].³⁵
- Condition 15.2, requires the certificate holder to ensure that the surety is obligated to comply with the requirements of applicable statutes, Council rules, and the site

³⁴ OAR 345-027-0375(2)(d).

³⁵ In the 2020 Final Order on RFA2, Council amended Condition 15.1 to include the decommissioning and site restoration cost estimate of \$13.779 million (in 4th Quarter 2020 dollars) for the related and supporting facilities associated with Amendment 2, as well as clarify that the initial bond or letter of credit amount for the Carty Solar Farm is \$2.713 million in 3rd Quarter 2016 dollars, not 2011 dollars.

1 certificate when the surety exercises any legal or contractual right it may have to
2 assume construction, operation, or retirement of the facility, if a bond is used to meet
3 the requirements of Condition 15.1.

- 4 • Condition 15.3, which mirrors the OAR 345-025-0006(7) Mandatory Condition, requires
5 that the certificate holder prevent the development of any condition on the site that
6 would preclude restoration of the site to a useful, non-hazardous condition.
- 7 • Condition 15.4, which mirrors the OAR 345-025-0006(9) Mandatory Condition, requires
8 the certificate holder to retire the facility in accordance with a Council-approved
9 retirement plan.
- 10 • Condition 15.5, which mirrors the OAR 345-025-0006(16) Mandatory Condition,
11 obligates the certificate holder to retire the facility upon permanent cessation of
12 construction or operation. Additionally, the condition provides the Department the
13 authority to develop a retirement plan, for Council approval, in the event the certificate
14 holder ceases operation of its facility and does not retire the facility in accordance with
15 a Council approved retirement plan.
- 16 • Condition 15.6, which also mirrors the OAR 345-025-0006(16) Mandatory Condition,
17 allows Council the ability to draw on the bond or letter of credit per Condition 15.1.
- 18 • Condition 15.7, which mirrors the OAR 345-026-0048 Mandatory Condition, requires the
19 certificate holder to implement a compliance plan following receipt of the site
20 certificate or an amended site certificate.

21
22 In RFA3, the certificate holder requests that council find that the proposed changes are specific
23 to the extension of construction deadlines, and deadlines and would not include modifications
24 to previously imposed conditions related to retirement and financial assurance.³⁶

25
26 Subject to compliance with existing conditions identified above, the Department recommends
27 Council continue to find that the site of the facility, could be restored adequately to a useful,
28 nonhazardous condition following permanent cessation of construction or operation.

29
30 *Estimated Cost of Site Restoration*

31
32 OAR 345-022-0050(2) requires the Council to find that the certificate holder continues to have a
33 reasonable likelihood of obtaining a bond or letter of credit in a *form* and amount necessary to
34 restore the site of the facility, with proposed changes, to a useful non-hazardous condition
35 [Emphasis added]. The bond or letter of credit must remain in force until the certificate holder
36 has fully restored the site. OAR 345-025-0010(8) establishes a mandatory condition, imposed as
37 Condition 15.1, which ensures compliance with this requirement.

38
39 To demonstrate its ability to receive an adequate bond or letter of credit, the certificate holder
40 provided an April 25, 2022 letter from JP Morgan Chase Bank, N.A., a financial institution pre-

³⁶ CGSAMD3 Complete RFA_2022-06-10. Section 6.7.

1 approved by Council, which states that “based upon the Company’s [Portland General Electric
2 Company] current credit profile, and subject to acceptable pricing, terms and requisite internal
3 credit approvals, J.P. Morgan would be willing to furnish or arrange a letter of credit in an
4 amount up to \$3.2 million...for the purpose of ensuring the Company’s obligation that the site
5 of the Carty Generating Station can be restored to a useful non-hazardous condition.”³⁷ The
6 bank letter is intended solely to demonstrate that the certificate holder has a reasonable
7 likelihood of obtaining a bond or letter of credit in the amount necessary for site restoration, as
8 required prior to construction and in accordance with Condition 15.1.

9
10 Council previously found that the restoration cost estimate for the Carty Solar Farm and its
11 supporting facilities totaled approximately \$2.7 million (Q3 2016 dollars). In RFA3, the
12 certificate holder provides an updated retirement cost estimate for the Carty Solar Farm and its
13 supporting facilities of \$3.158 million (Q2 2022 dollars). Condition 15.1 uses the U.S. Gross
14 Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon Department
15 of Administrative Services “Oregon Economic and Revenue Forecast,” using the index value for
16 3rd Quarter 2016 dollars and the quarterly index value for the date of issuance of the new bond
17 or letter of credit, or in this case, 2nd Quarter 2022. Therefore, the Department recommends
18 Council provide an adjustment factor of 1.189 below in Table 5 to provide the cost estimate in
19 third Quarter 2022 dollars.

20
21 **Table 5: Carty Solar Farm LOC Calculation**

Item	Amount
(Q3 2016) Subtotal cost of site restoration as approved by EFSC on December 14, 2018	\$ 2,713,000
3rd qtr Quarter 2016 Implicit Price Deflator for GDP (https://www.oregon.gov/das/OEA/Pages/forecastcorev.aspx)	105.894
2nd Quarter 2022 Implicit Price Deflator for GDP (https://www.oregon.gov/das/OEA/Pages/forecastcorev.aspx)	125.919
Adjustment factor	1.189
(Q2 2022) Adjusted subtotal	\$ 3,225,757

22 Based on the adjustments from inflation, the Department recommends Council find that \$3.2
23 million (Q2 2022 dollars) is a reasonable estimate of an amount to restore the ~~proposed~~-Carty
24 Solar Farm and its supporting facilities to a useful, non-hazardous condition following
25 permanent cessation of construction or operation. ~~Therefore, the~~³⁴ The Department also
26 recommends Council consider the bank letter provided as Attachment 7 to the RFA
27 for representing a reasonable likelihood of obtaining a bond or letter of credit in the amount
28 necessary for site restoration. As described above and in accordance with Condition 15.1,
29 construction cannot begin until the Department receives a satisfactory bond or letter of credit.

30
31 Subject to compliance with existing ~~and amended~~ conditions, the Department recommends
32 Council find that the facility site of the ~~proposed~~-Carty Solar Farm and its supporting facilities

³⁷ CGSAMD3 Complete RFA_2022-06-10. Attachment 7.

1 could be restored adequately to a useful, non-hazardous condition following permanent
2 cessation of construction or operation, as well as find that the certificate holder has a
3 reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory
4 to the Council to restore the site to a useful, non-hazardous condition.

5

6 **Conclusions of Law**

7 For the reasons describe above, and subject to the existing site certificate conditions, the
8 Department recommends Council find that the facility, with the-proposed construction deadline
9 extensions ~~requested in RFA3~~, would continue to comply with the Council's Retirement and
10 Financial Assurance standard.

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

12

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

15

16 (1) *The general fish and wildlife habitat mitigation goals and standards of OAR 635-415-
17 0025(1) through (6) in effect as of February 24, 2017*

18 ***

19

20 **Findings of Fact**

21 This rule creates requirements for mitigating impacts to fish and wildlife habitat, based on the
22 functional quantity and quality of the habitat impacted as well as the nature, extent, and
23 duration of the impact. The rule also establishes a habitat classification system based on the
24 function and value of the habitat it would provide to a species or group of species likely to use
25 it. ODFW policy identifies six habitat categories, with Category 1 being the most valuable, and
26 Category 6 the least valuable.

27

28 The analysis area for potential fish and wildlife habitat impacts, as defined in the project order,
29 is the area within and extending ½-mile from the site boundary.³⁸ For RFA3, the certificate
30 holder performed a desktop review of aerial imagery within the analysis area (0.5- mile buffer
31 of the area subject to RFA3, as shown in RFA3, Figure 2); consulted with ODFW; and did not
32 identify any significant land use changes since AMD1 or AMD2. As part of the analysis
33 submitted for RFA3, the certificate holder also reviewed ODFW sensitive species lists and
34 occurrences based on updated Oregon Biodiversity Information Center (ORBIC) data resulting in
35 new species or information that would change as a result of RFA3. Additionally, the
36 certificate holder has included documentation of consultation with ODFW for RFA3 in which
37 ODFW states they did not see a need for any new surveys as a result of RFA3.³⁹ ODFW affirmed

³⁸ CGSNOIDoc17. Project Order, p.18. 2009-11-03.

³⁹ CGSAMD3 Complete RFA_2022-06-10, Attachment 2.

1 that there were no significant changes in habitat or State-sensitive species within the analysis
2 area that would impact the previous analysis.⁴⁰ For these reasons, the Department
3 recommends that Council rely on previous findings for habitat categories for the purposes of
4 evaluating RFA3.

5
6 *Habitat Types and Categories in the Analysis Area*

7
8 Habitat category and subtypes identified within the analysis area for AMD1 include the
9 following:

10

- 11 • Category 1
 - 12 ○ Washington Ground Squirrel (WGS) Occupied: areas with suitable habitat that
13 are within a 785-foot buffer of active WGS burrow
- 14 • Category 2
 - 15 ○ WGS Potential Seasonal Home Range Shift and Dispersal Areas: 1500-meter
16 buffer from active WGS burrow
- 17 • Category 3
 - 18 ○ Sagebrush steppe
 - 19 ○ Riparian forest
 - 20 ○ Riparian scrub wetland
- 21 • Category 4
 - 22 ○ Sagebrush steppe (disturbed)
 - 23 ○ Grasslands (degraded)
 - 24 ○ Grasslands (post-burn)
 - 25 ○ Cheatgrass savannah
 - 26 ○ Broom snakeweed shrublands
- 27 • Category 5
 - 28 ○ Riparian meadow (disturbed)
- 29 • Category 6
 - 30 ○ Agriculture Cropland
 - 31 ○ Artificial Pond⁴¹
 - 32 ○ Developed

33
34 In RFA1, Council concurred with the ODFW recommendation that Category 2 WGS habitat
35 includes any suitable WGS habitat within 1,500-meters of an active WGS burrow, unless there is
36 a break in the habitat that would pose as a barrier to WGS movements. The Council also
37 affirmed ODFW's recommendations regarding habitat categorization for WGS habitat and that

⁴⁰ CGSAMD3 DPO Reviewing Agency Comment ODFW 2022-06-30. CGSAMD3 pRFA Reviewing Agency Comment ODFW 2022-02-17.

⁴¹ 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.

1 Council will evaluate habitat impacts and mitigation based on ODFW's recommendations. The
2 Department recommends that there are no changes in fact or law since AMD1 that would
3 change Council's previous findings on habitat requirements for WGS as a result of RFA3.

4

5 *Potential Impacts to Fish and Wildlife Habitat*

6

7 Construction and operation of the ~~proposed~~-Carty Solar Farm and its supporting facilities would
8 result in temporary, temporal and permanent habitat impacts to Category 2 (WGS Potential
9 Seasonal Home Range Shift); Category 3 (Sagebrush steppe; Riparian forest); Category 4
10 (Sagebrush steppe, disturbed; Broom snakeweed shrublands; grasslands, post-burn; grasslands,
11 degraded; Cheatgrass savannah); and Category 6 (agricultural cropland and developed areas).⁴²
12 Impacts to Category 6 habitat do not require compensatory mitigation under the Council's Fish
13 and Wildlife Habitat standard.

14

15 As presented below Table 65, *Estimated Temporary and Permanent Habitat Impacts, by*
16 *Category, for Facility with Proposed Changes*, Council found that the ~~proposed~~-Carty Solar Farm
17 and its supporting facilities would temporarily disturb approximately 6.39, 7.66 and 90.57 acres
18 of Category 2, 3 and 4 habitat, respectively, resulting in temporary and temporal habitat
19 impacts.⁴³ They also found that the ~~proposed~~-Carty Solar Farm and its supporting facilities
20 would permanently disturb approximately 259.32, 42.84 and 18.79 acres of Category 2, 3 and 4
21 habitat, respectively. In the Final Order on AMD2, Council found that AMD2 would add a
22 temporary disturbance area of 1 acre of Category 4 and 1.15 acres of Category 6 habitat, and
23 permanent disturbance of .6, and .85 acres of Category 4, and 6 habitat, respectively.

24

**Table 6: 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

⁴² 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.

⁴³ 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.

Table 6: 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 Components Approved in Final Order on Amendment 2⁴			
Category 4	1.0	0.6	1.10
Category 6	1.15	0.85	0.0
Total Area =	2.15	1.45	1.10
Carty Solar Farm and Supporting Facilities⁵			
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 Required under AMD1=			635.78
Size of Habitat Mitigation Area Required under AMD2 =			1.10
RFA3/AMD2 Size of Habitat Mitigation Area for Facility =			73.85

Notes:

In all cases impacts in a given area would only be mitigated once.

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. New Facility components as proposed in RFA2 include the new security guard station, wastewater pipeline, septic system, water pipeline, and the Carty substation and associated distribution lines
5. The 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

1

2 ~~In the Final Order on Amendment 2, new site certificate Condition 10.40 was imposed by~~
 3 ~~Council, which requires PGE to operate the Carty Reservoir at an elevation no lower than an~~
 4 ~~annual average of 665 feet mean sea level (MSL). Carty Reservoir is a wastewater facility~~
 5 ~~constructed for the BCP. The elevation of the reservoir has been maintained at a consistent~~
 6 ~~elevation between 667 and 668 feet MSL due to operational needs of the BCP. With BCP~~
 7 ~~ceasing operations, the Carty reservoir does not need to be maintained at the same elevation,~~
 8 ~~and certificate holder agrees to maintain the reservoir at a minimum annual average of 665~~
 9 ~~foot MSL. In the Final Order on AMD2, Council imposed Condition 10.40, to require the~~
 10 ~~certificate holder to maintain the Carty reservoir at an annual average of 665 feet mean sea~~
 11 ~~level (MSL). Under this condition, the certificate holder may operate the reservoir at a lower~~

1 ~~elevation without a site certificate amendment if the certificate holder consults with the~~
2 ~~Department and ODFW to determine that the lower elevation would not result in a net loss of~~
3 ~~habitat.~~

4

5 *Proposed Habitat Mitigation*

6 The mitigation goal for Category 2 habitat is no net loss of either habitat quantity or quality and
7 provision of a net benefit of habitat quantity or quality. To achieve this goal, impacts must be
8 avoided or unavoidable impacts must be mitigated through “reliable in-kind, in-proximity”
9 habitat mitigation to achieve no net loss; and a net benefit of habitat quantity or quality must
10 be provided. The mitigation goal for Category 3 habitat is no net loss of either habitat quantity
11 or quality. The goal is achieved by avoidance of impacts or by mitigation of unavoidable impacts
12 through “reliable in-kind, in-proximity” habitat mitigation. The mitigation goal for Category 4
13 habitat, similar to the mitigation goal for Category 3 habitat impacts, is no net loss of either
14 habitat quantity or quality. The Category 4 mitigation goal differs from the Category 3
15 mitigation goal in that achievement may be reached through avoidance of impacts or by
16 mitigation of unavoidable impacts through “reliable in-kind or out-of kind,” and “in- or off-of
17 proximity” habitat mitigation.

18

19 To mitigate the permanent and temporary habitat impacts, Council previously imposed
20 Condition 10.2 requiring the certificate holder to, prior to construction, provide a habitat
21 assessment including habitat (in acres) by habitat category and subtype of the proposed HMA
22 along with the easement.

23

24 An amended draft Wildlife and Habitat Monitoring and Mitigation Plan (WHMMP) was
25 prepared by the certificate holder and evaluated by both the Department and ODFW for RFA2
26 and approved by Council in the Final Order on AMD2. Revisions were made to the WHMMP to
27 accurately describe the approved facility. In the amended WHMMP, the certificate holder
28 proposed to mitigate permanent impacts to Category 4 habitat by including 1 acre for every 1
29 acre that is permanently impacted within its existing HMA (a 1:1 ratio to provide no net loss)
30 and .5 acre for every 1 acre that is temporarily impacted. This approach is consistent with the
31 ODFW Fish and Wildlife Habitat Mitigation Policy and the EFSC Fish and Wildlife Habitat
32 standard. Based on this ~~proposed~~ methodology, the size of the Habitat Mitigation Area required
33 to mitigate for habitat loss (both temporary and permanent) associated with RFA3 will be the
34 calculations approved by Council in the Final Order on AMD2: 73.85 acres. RFA3 proposes no
35 changes that would alter these calculations. Consultations with ODFW support this conclusion.
36 For these reasons, the Department recommends Council continue to find that the approved
37 HMA has the capacity of 78 acres and remains sufficient acreage for 73.85 acre HMA
38 requirements under RFA3.

39

40 Council previously imposed Condition 5.5 requiring that the certificate holder, during
41 construction and operation, implement a Revegetation and Weed Control Plan, consult with
42 county weed control supervisors, and comply with county weed control ordinance provisions.
43 Council previously approved the certificate holder to mitigate temporal (i.e. loss of habitat
44 function and values from the time an impact occurs to the time when the restored habitat

1 provides a pre-impact level of habitat function) and permanent habitat impacts in the form of a
2 permanent conservation easement on a habitat mitigation area (HMA) in-proximity to the
3 ~~proposed amended~~ site boundary, which contains similar habitat quality and quantity as the
4 habitat to be impacted. Council has also previously approved the certificate holder to include in
5 its HMA 2 acres for every 1 acre of Category 2 habitat permanently impacted (a 2:1 ratio to
6 provide no net loss and a net benefit of habitat quantity).

7
8 In RFA1, the certificate holder describes that the HMA would be located within a portion of the
9 PGE Multi-Species Candidate Conservation Agreement with Assurances (MSCCAA) Conservation
10 Area. The MSCCAA is a 25-year voluntary conservation agreement between Threemile Canyon
11 Farms, PGE, TNC, ODFW and USFWS which includes over 23,000 acres consisting primarily of
12 shrub-steppe habitat. The HMA for the previously approved and operating facility includes 78-
13 acres adjacent to PGE's MSCCAA Conservation Area, located northeast of PGE's adjacent
14 Boardman Coal Plant. The approved HMA for the ~~proposed~~ Carty Solar Farm and its supporting
15 facilities is located within PGE's MSCCAA Conservation Area, and will border the HMA
16 established for the facility, as approved and operating. In the Final Order on AMD2, the Council
17 found that the approved 78-acre HMA associated with Unit 1 and supporting facilities contains
18 sufficient land to provide the required compensatory mitigation for the RFA2 facility
19 component impacts. There are no changes as a result of RFA3 that would change those facts.
20 For these reasons, the Department recommends that Council rely upon their previous finding
21 that the 78-acre HMA remains sufficient for habitat mitigation requirements for the solar farm.
22

23 ~~In addition to the habitat mitigation requirements, in the Final Order on AMD2 the Council
24 adopted conditions requiring additional pre-construction surveys, and implementation of a
25 Revegetation and Noxious Weed Control Plan approved by Morrow County and ODFW.~~

26 27 *State Sensitive Species within Analysis Area*

28
29 In RFA1, the certificate holder conducted a desktop review to identify State Sensitive species
30 with the potential to occur within the analysis area based on species range and existing habitat.
31 The desktop review evaluated ODFW's 2017 Sensitive Species List, the Oregon Biodiversity
32 Information Center (ORBIC 2016), eBird (2017), NatureServe (2017), Oregon Wildlife Explorer
33 (OSU Libraries and Press and Institute for Natural Resources 2014), Birds of Oregon (Marshall et
34 al. 2006), and Birds of North America (Rodewald 2015). Based on this desktop review, the
35 certificate holder identified suitable habitat within the analysis area for: 13 State-sensitive
36 species (including 2 reptiles, 9 birds, and 2 bat species). Of these State-sensitive species, only 1 –
37 the Northern Sagebrush lizard was observed during 2016 surveys. For RFA3, the certificate
38 holder performed an updated review of aerial imagery, state sensitive species lists, and updated
39 searches of the ORBIC database and reported no changes from the previous searches performed

1 for RFA1 and RFA2.⁴⁴ For these reasons, the Department recommends that Council rely on
2 previous findings for the purposes of RFA3.

3

4 *Potential Impacts to State Sensitive Species*

5

6 Potential impacts to State Sensitive species during construction and operation of the ~~proposed~~
7 Carty Solar Farm and its supporting facilities include sensory disturbance (i.e., noise, vibration,
8 and visual) from the presence of personnel, vehicles, and equipment during construction,
9 operation, and retirement; as well as permanent impacts from habitat loss/modification;
10 collision with equipment and facilities; increased predation risk from transmission lines used for
11 perching, and transmission line electrocution and collision. The certificate holder also describes
12 potential indirect impacts to the Carty Reservoir, a riparian habitat where fish species and raptor
13 nests were identified, from construction-related runoff and sediment.

14

15 Council previously imposed and amended Conditions 10.1 through 10.13 under the Fish and
16 Wildlife Habitat standard to require the certificate holder to implement measures and practices
17 to avoid and minimize potential impacts to state sensitive species. ~~In the Final Order on AMD2,~~
18 ~~Council found that the construction and operation of the new approved facility would continue~~
19 ~~to comply with the requirements of the Fish and Wildlife Habitat Standard.~~ All previously
20 imposed Council conditions for fish and wildlife habitat apply to RFA3. A change in construction
21 start and completion dates would not require changes to the existing conditions, and the
22 proposed change to extend the construction deadlines for the Carty Solar Farm do not affect
23 the certificate holder's ability to comply with any of the other previously imposed site
24 conditions for fish and wildlife habitat. For these reasons, the Department recommends that
25 Council continue to rely on its previous findings under this standard.

26

27 **Conclusions of Law**

28 Based on the foregoing findings of fact and conclusions, and subject to compliance with existing
29 ~~and amended~~ site certificate conditions, the Department recommends Council finds that the
30 facility, with proposed changes~~construction deadline extension~~, would continue to comply with
31 the Council's Fish and Wildlife Habitat standard.

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

33

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

36

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

⁴⁴ CGSAMD3 Complete RFA_2022-06-10. Section 6.8.

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

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

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

Findings of Fact

For threatened and endangered plant species, the Council must also find that the facility, with proposed ~~changes~~deadline extension, is consistent with an adopted protection and conservation program from Oregon Department of Agriculture (ODA). Threatened and endangered species are those listed under ORS 564.105(2) for plant species and ORS 496.172(2) for fish and wildlife species. For the purposes of this standard, threatened and endangered species are those identified as such by either the Oregon Department of Agriculture ODA or the Oregon Fish and Wildlife Commission.⁴⁵

The analysis area for threatened or endangered plant and wildlife species, as established in the project order, is the area within and extending five miles from the site boundary, ~~as amended~~.⁴⁶

As part of their updated review for RFA3, the certificate holder reviewed the following resources to identify an updated list of state threatened and endangered plant and animal species that may be affected by the facility and the requested amendment:

- ODFW Online Compass Tool (ODFW 2022);
- Stream Net Mapper Fish Distribution (StreamNet 2022);
- Oregon Flora Project Mapping Tool (OFP 2022);
- Oregon Department of Agriculture Lawrence's milkvetch profile (ODA n.d.);
- ORBIC Rare, Threatened and Endangered Species of Oregon Publication (ORBIC 2019)

The certificate holder also reviewed the ODFW threatened and endangered species list (ODFW 2021), the ODA threatened and endangered plant species list (ODA 2022), and updated

⁴⁵ 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.

⁴⁶ CGSNOIDoc17 Final Carty Generating Station Project Order, p.18, 2009-11-03.

1 threatened and endangered species occurrences (ORBIC 2022). In addition to reviewing these
2 publicly available desktop resources, the Certificate Holder submitted a database inquiry letter
3 to the Oregon Biodiversity Information Center (ORBIC; ORBIC 2022) and coordinated with
4 ODFW (see Attachment 2 of RFA3). None of these searches identified any new information that
5 would be relevant under this standard for RFA3. The species of concern remain WGS and
6 Lawrence's milkvetch, as previously identified per the ASC, RFA1 and RFA2. For these reasons
7 the ~~Department~~ recommended that Council rely upon its previous findings that the discovery
8 measures for protected species under this Council standard are sufficient to support Council's
9 previous findings for Threatened and Endangered species.

10
11 *Potential Impacts to Identified Threatened and Endangered Species*

12
13 *Wildlife*

14
15 In order to identify threatened and endangered wildlife species that might occur within the
16 analysis area, the certificate holder conducted a literature review and field surveys. The
17 literature review for threatened and endangered wildlife species evaluated U.S. Fish and
18 Wildlife Service's Information for Planning and Conservation (IPaC), Oregon Biodiversity
19 Information Center (ORBIC 2016) database, ODFW's 2017 list of "Threatened, Endangered, and
20 Candidate Fish and Wildlife Species," and the Oregon Wildlife Explorer (Oregon State University
21 Libraries and Press and Institute for Natural Resources 2014). Based on results of the literature
22 review, one state listed threatened wildlife species - Washington ground squirrel (WGS) – was
23 identified as having the potential to occur within the analysis area. For RFA1, the certificate
24 holder's conducted surveys in 2016 and 2017. For RFA2, the certificate holder relied on surveys
25 conducted in 2011 and 2018.⁴⁷ No new surveys were conducted for RFA3. Consultation with
26 ODFW affirmed that they saw no need for new surveys for the purposes of RFA3 compliance, as
27 existing conditions and previous surveys were deemed to current standards and adequate for
28 this RFA3.⁴⁸

29
30 During the 2016 protocol-level surveys, active WGS colonies were not observed; however, signs
31 of inactive colonies were observed within the survey area but not within the ~~proposed~~
32 ~~amended~~ site boundary area. During separate survey efforts conducted by the certificate
33 holder in 2017, active WGS colonies were detected within the site boundary subject to RFA3.

34
35 WGS habitat is Category 1 habitat and includes the area within a 785-foot buffer of an active
36 colony. ODFW's mitigation goal for Category 1 habitat requires avoidance of all impacts.
37 Therefore, the certificate holder is restricted from directly impacting WGS habitat. In the Final
38 Order on the Application, the Council imposed numerous conditions (conditions 10.1, 10.7,
39 10.14, 10.15, 10.17, 10.18, 10.20, and 10.21) to avoid and minimize potential direct and indirect

⁴⁷ CGSAMD2, Final Order 2020-11-19. Section III.A.8.

⁴⁸ CGSAMD3 Complete RFA_2022-06-10. Attachment 2: ODFW Correspondence.

1 impacts to WGS and to Category 1 WGS habitat. In the Final Order on AMD1, Council
2 administratively amended Conditions 10.18, 10.19, 10. 20, and 10.21, and found that the
3 requested condition amendments did not substantively change the intent of the previously
4 imposed conditions. Furthermore, Council found that the facility would not be likely to cause a
5 significant reduction in the likelihood of any wildlife species listed as threatened or endangered.

6 ~~In the Final Order on AMD2, the Council approved additional administrative amendments be
7 made to Council previously imposed~~ Conditions 10.1, 10.4, 10.6, 10.11, 10.21. These conditions
8 remain applicable to the construction and operation of the solar farm and supporting facility
9 components and will not change as a result of RFA3. Potential indirect impacts from
10 construction and operation of the ~~proposed~~ Carty Solar Farm and its supporting facilities
11 include loss of suitable, but currently unoccupied, WGS habitat; increased predation risk from
12 transmission lines providing perch structures; and vehicular collision fatality.

13
14 The Council also previously found that based upon compliance with previously imposed ~~and~~
15 ~~amended~~ conditions, the facility would not be likely to cause a significant reduction in the
16 likelihood of survival of any wildlife species listed as threatened or endangered. Because the
17 change in construction start and completion dates will not alter the findings of the existing
18 conditions imposed and amended by Council in relations to WGS, and the desktop analysis and
19 consultation with ODFW did not identify any additional or new species, the Department
20 recommends that council continue to rely on previous findings for RFA3, and that based upon
21 compliance with previously imposed and amended conditions, the facility would not be likely to
22 cause a significant reduction in the likelihood of survival of any wildlife species listed as
23 threatened or endangered.

24
25 *Plants*

26
27 In order to identify threatened and endangered plant species that might occur within the
28 analysis area, the certificate holder conducted a literature review and field survey. The
29 literature review for threatened and endangered plant species evaluated Oregon Department
30 of Agriculture's 2016 threatened, endangered, and candidate plants list and the ranges and
31 habitat requirements for these species (NatureServe Explorer 2015; ODA 2016; ORBIC 2016;
32 USDA 2016). Based on results of the literature review, one ODA-listed plant species –
33 Lawrence's milkvetch – was identified as having the potential to occur with the analysis area. In
34 Exhibit P of Amendment 1, the certificate holder explains that their consultant, Ecology and
35 Environment, Inc. (E & E), conducted three types of biological surveys; vegetation and habitat
36 mapping, species-specific surveys for the Washington ground squirrel (WGS), and wetland and
37 waterbody surveys within the analysis area in March and April of 2016.⁴⁹

38
39 In Exhibit Q of Amendment 1, the certificate holder clarified~~ds~~ that E & E did not conduct
40 targeted surveys of Lawrence's milkvetch in 2016, because Lawrence's milkvetch is not known

⁴⁹ CGS RFA 1 ExP 2018-02-14. Appendix P-1. Figure 3.

1 to occur in the analysis area. Furthermore, the certificate holder explains that the nearest
2 recorded observation was documented about 8 to 10 miles east of the Carty Reservoir in 1976,
3 and that all other records are substantially further away from the analysis area. E & E's 2016
4 vegetation and habitat mapping mapped vegetation communities within the Site Boundary
5 expansion areas (including the Carty Solar Farm area), and did not observe Lawrence's
6 milkvetch.⁵⁰ The certificate holder described that the current habitat condition within the
7 amended site boundary does not include bluebunch wheatgrass, Lawrence's milkvetch
8 preferred habitat. In a comment on RFA1, however, ODA stated that the site boundary is within
9 the known geographic range of Lawrence's milkvetch. Surveys conducted for RFA2 were limited
10 in geographical area, did not cover the entire analysis area for RFA3, but did not identify any
11 Lawrence's milkvetch. In the Final Order on AMD1, Council amended site certificate condition
12 10.14 to require that the certificate holder to complete pre-construction WGS surveys and
13 Lawrence's milkvetch surveys. The Final Order on AMD2 did not change this requirement or
14 amend this condition. The requested change in construction start and completion dates will not
15 change these requirements. For these reasons, the Department recommends that the Council
16 continue to rely upon previous findings for this standard, and specifically for Lawrence's
17 milkvetch, or any other listed plant species identified in the preconstruction surveys.

18

19 **Conclusions of Law**

20 Based on the foregoing recommended findings of fact and conclusions, and subject to
21 compliance with the existing conditions, the Department recommends Council finds that the
22 facility, with proposed construction deadline extension, continues to comply with the Council's
23 Threatened and Endangered Species standard.

24 **III.J. Scenic Resources: OAR 345-022-0080**

25

26 (1) *Except for facilities described in section (2), to issue a site certificate, the Council
27 must find that the design, construction and operation of the facility, taking into
28 account mitigation, are not likely to result in significant adverse impact to scenic
29 resources and values identified as significant or important in local land use plans,
30 tribal land management plans and federal land management plans for any lands
31 located within the analysis area described in the project order.*

32 ***

33 **Findings of Fact**

34 In applying the standard set forth in OAR 345-022-0080(1), the Council assesses the visual
35 impacts of facility structures on significant or important scenic resources described in "local land
36 use plans, tribal land management plans and federal land management plans for any lands
37 located within the analysis area described in the project order." For purposes of this rule, the

⁵⁰ CGS RFA 1 ExQ 2018-02-14. p Q-4.

1 Council considers “local land use plans” includes applicable state land use and management
2 plans.

3
4 The analysis area for the Scenic Resources standard is the area within and extending 10-miles
5 from the amended site boundary. The 10-mile analysis area in RFA 1 included parts of two
6 Oregon counties (Morrow and Gilliam), one Oregon municipality (Boardman), land
7 administered by the Oregon Department of Transportation (ODOT), and land administered by
8 the Bureau of Land Management and U.S. Fish & Wildlife Service. The certificate holder did not
9 identify any new or previously unevaluated land use management plans in the 10-mile analysis
10 area subject to RFA 3. The certificate holder also represents that none of the land use
11 management plans evaluated with RFA1 have been amended or changed between the
12 submission of RFA1 and RFA 3.

13
14 Applicable Land Use Plans

15
16 The analysis area includes parts of two Oregon counties (Morrow and Gilliam), one Oregon
17 municipality (Boardman), land administered by the Oregon Department of Transportation
18 (ODOT), and land administered by the Bureau of Land Management and U.S. Fish & Wildlife
19 Service. As part of their analysis for any possible changes in fact or law under this Council
20 standard, the certificate holder conducted updated review of the eight land use plans
21 identified and evaluated under RFA1:

22

- 23 • Gilliam County Comprehensive Plan (Gilliam County 2017)
- 24 • Morrow County Comprehensive Plan (Morrow County 2013)
- 25 • Bureau of Land Management John Day Basin Resource Management Plan (BLM 2015)
- 26 • Umatilla National Wildlife Refuge Comprehensive Conservation Plan (USFWS 2008)
- 27 • Oregon Department of Transportation 1999 Highway Plan (ODOT 2015)
- 28 • City of Boardman’s Comprehensive Plan
- 29 • Columbia Basin Wildlife Area Management Plan (ODFW 2008)
- 30 • Oregon Trail Comprehensive Management and Use Plan (U.S. National Park Service
31 1999)

32
33 Based on review of the above-referenced plans, conducted for RFA1, the certificate holder
34 identified Blue Mountain Scenic Byway and a site and segment of the Oregon National Historic
35 Trail (the Boardman segment and Well Springs site) as potentially significant or important
36 scenic resources within the analysis area. In RFA3, the certificate holder states that none of the
37 previously evaluated land use management plans have been amended or changed since the
38 submission of revised RFA1 in February 2018. In RFA3, the certificate holder further represents
39 that there are no new or previously unevaluated land use management plans in the 10-mile
40 analysis area for the area subject to RFA3. Accordingly, no new resources are identified or
41 discussed as a result of this amendment request.

42
43 *Blue Mountain Scenic Byway*

1 The Blue Mountain Scenic Byway is an approximately 130-mile designation along State Route
2 74 that traverses through the Blue Mountains of Northeastern Oregon, and was designated in
3 1997 as a “scenic byway” by Oregon Department of Transportation. At the closest point, the
4 Blue Mountain Scenic Byway is approximately 7 miles to the west of the ~~proposed amended~~
5 site boundary. The Council is unaware of any management plan for the Blue Mountain Scenic
6 Byway that would direct or manage development with the specific intent to preserve scenic
7 resources or values along the 130-mile designated route. The US Forest Service has developed
8 an interpretive guide for the Blue Mountain Scenic Byway; this guide identifies National Forest
9 land along the Byway as a scenic corridor, however, the Carty Solar farm would not be located
10 in or near National Forest land along the Byway.

11

12 *ONHT*

13 The Boardman segment and Well Springs site of the Oregon National Historic Trail are
14 designated by the National Trails System Act as a high-potential segment and high-potential
15 site. High-potential segments are those meeting a criteria of a “high quality recreation
16 experience in a portion of the route having greater than average scenic values or affording an
17 opportunity to vicariously share the experience of the users of a historic route.” High-potential
18 sites are those meeting the criteria of “historic significance, the presence of visible historic
19 remnants, scenic quality, and relative freedom from intrusion.” The Boardman segment is
20 located approximately 2 miles south of the ~~proposed amended~~ site boundary; the Well Springs
21 site is located approximately 4.2 miles southeast of the ~~proposed amended~~ site boundary.

22

23 Based on review of the referenced plans, the Council previously found that the Blue Mountain
24 Scenic Byway is not identified in a land use plan as a significant or important scenic resource,
25 and further not specifically managed for its scenic qualities. Therefore, the Council did not need
26 to make findings related to potential significant adverse impacts to this resource as it was not
27 protected under Council’s Scenic Resources standard. As noted above, “high potential
28 segments” of the ONHT are those that may have “greater than average scenic values.”
29 However, the Boardman segment of the Oregon National Historic Trail and Well Springs site of
30 the Oregon National Historic Trail do not have a specific management plan that manages for
31 scenic resources or values and as such, the Council did not need to make findings related to
32 potential significant adverse impacts from the ~~proposed amended~~ facility to the resources as
33 they are not protected under the Council’s Scenic Resources standard. Nonetheless, due to
34 uncertainty if the resources would be protected by the Council standard, as part of RFA1, the
35 certificate holder provided an assessment of potential visual impacts of the ~~proposed~~ Carty
36 Solar Farm and its supporting facilities to the identified scenic resources in RFA1. The
37 Department recommends that Council rely on its previous findings for scenic resources under
38 this Council standard.

39

1 Visual Impacts

2

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

6

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

10

11 *Loss of Vegetation*

12

13 The Council has previously found that the Carty Solar Farm and its supporting facilities would
14 result in temporary and permanent vegetation loss. Temporary vegetation loss would be
15 restored through the certificate holder's implementation of a final Revegetation and Weed
16 Plan, to be reviewed and approved by the Department prior to construction, in accordance with
17 Condition 5.5. Council has also previously found that the operation of the Carty Solar Farm and
18 its supporting facilities would result in permanent vegetation loss from the footprint of facility
19 components. The Boardman Segment of the Oregon National Historic Trail is the closest of the
20 resources identified to the ~~proposed amended~~ site boundary, at 2 miles. Based on this distance,
21 visibility of temporary and permanent vegetation loss would not be expected. There are no
22 changes in fact or law since the Final Order on AMD1 that would change those findings. For
23 these reasons, and based upon the limited scope of the requested changes in RFA3, the
24 Department recommends that Council continue to rely upon its previous findings on the
25 potential loss of vegetation as a result of the construction of the Carty Solar Farm.

26

27 *Facility Structures*

28

29 In the Final Order on AMD1, the Council found that the Carty Solar Farm and its supporting
30 facilities would result in visible facility structures. To support its evaluation of potential visual
31 impacts of the ~~proposed~~ Carty Solar Farm and its supporting facilities for RFA1, and in response
32 to the Department's Request for Additional Information, the certificate holder completed a
33 zone of visual influence (ZVI) analysis to both protected areas and important scenic resources
34 .⁵¹ A ZVI analysis identifies visibility based on topography but does not account for screening
35 from vegetation or structures.

36

37 Based on the ZVI analysis, as presented in RFA1, Figure R-1, Council found that the Carty Solar
38 Farm and its supporting facilities would not be visible from the Blue Mountain Scenic Byway nor
39 Well Springs site of the Oregon National Historic Trail, and therefore would not visually impact
40 these resources. Based on the ZVI conducted for RFA1, the Council also found that the Carty

⁵¹ PGE Carty RFA No1 RAI Responses.

1 Solar Farm and its supporting facilities, would be visible from a small portion of the Boardman
2 segment of the Oregon National Historic Trail. However, because a portion of the Boardman
3 segment of the ONHT would be visually impacted and located within the Boardman Bombing
4 range with restricted access, Council found no significant impacts because there are limited
5 users that could be impacted by visibility of the ~~proposed facility~~ components. The Department
6 recommends that Council continue to rely upon the findings of the ZVI analysis and their
7 findings of no significant visual impacts to the ONHT as a result of the Carty Solar Farm.
8

9 In the Final Order on AMD1, the Council imposed Conditions 5.5 and 6.12 through 6.14, which
10 include measures to reduce visual impacts from construction equipment, to paint facility
11 buildings and structures with low-reflectivity neutral colors to blend with the surrounding
12 landscape, and to limit nighttime lighting, respectively. RFA3 makes no changes to the
13 previously approved Carty Solar Farm, its related or supporting components, or the associated
14 permanent and temporary disturbance areas that should change these previous Council
15 findings or site certificate conditions.
16

17 For all of these reasons, the Department recommends that Council find that the identification
18 and evaluation of potential impacts of the Carty Solar Farm, as previously approved by Council
19 in the Final Order on AMD1, and based upon the limited scope of the change in RFA3, continues
20 to satisfy the requirements for identification and evaluation of impacts under this Council
21 standard. There have been no changes in fact of law that would change these previous Council
22 findings for scenic resources.
23

24 **Conclusion of Law**

25
26 Based on the foregoing recommended findings of fact, the Department recommends that
27 Council continue to find that the design, construction, and operation of the ~~proposed~~ Carty
28 Solar Farm and its supporting facilities would comply with the Council's Scenic Resources
29 standard.
30

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

32
33 (1) *Except for facilities described in sections (2) and (3), to issue a site certificate, the
34 Council must find that the construction and operation of the facility, taking into account
35 mitigation, are not likely to result in significant adverse impacts to:*
36

37 (a) *Historic, cultural or archaeological resources that have been listed on, or would
38 likely be listed on the National Register of Historic Places;*
39

40 (b) *For a facility on private land, archaeological objects, as defined in ORS
41 358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and*
42

43 (c) *For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).*
44

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

Findings of Fact

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

Previous Discovery Measures and Findings

There have been two prior archival and field assessments for cultural and archaeological resources completed for the ASC and for RFA1. Relying upon the findings of the previous field work, surveys, and evaluations completed for the ASC and AMD1, the certificate holder supplemented the record of both RFA2 and RFA3 by updating records searches and coordinating with SHPO. Council has previously relied upon the work performed for the ASC and supplemented for RFA1 (which approved the Carty Solar Farm) and the Department recommends that Council continue to rely upon these findings for consideration of RFA3.

Field surveys conducted in 2009 identified two prehistoric archaeological isolates and two historic period archaeological sites, none of which were considered eligible for the National Register of Historic Places (NRHP). Previous research and field investigations conducted for the 2011 ASC and the 2018 RFA1 resulted in the identification of one previously recorded archaeological site within the analysis area subject to RFA3 (the Carty Solar Farm). Site 35MW19, also known as “The Northwestern Outlet Site,” was described as a prehistoric lithic scatter consisting of flakes and a knife. Another archaeological site, 35MW15, was identified as being located adjacent to, but outside, the ~~proposed amended~~ site boundary for RFA1. Site 35MW15 is a prehistoric debris scatter consisting of lithic flakes and formed tools⁵². 2016 field investigations conducted as part of RFA1 confirmed that site 35MW15 was not within the analysis area. These sites are discussed briefly below.

Site 35MW19

Site 35MW19 was originally recorded during archaeological work conducted in the 1970's for the Carty and Pebble Springs Reservoir Areas. In 2009, Archaeological Investigations Northwest, Inc. (AINW), contracted by PGE conducted a series of field investigations to relocate site 35MW19. PGE reported that no artifacts were found during the pedestrian survey of the recorded 35MW19 archaeological site area. Shovel tests were excavated outside of the recorded site 35MW19 area at least 30 m from the edge of the recorded site boundaries.

⁵² CGS RFA 1 ExS 2018-02-14, confidential material.

1 Eighteen shovel tests were excavated around the site periphery to verify the absence of
2 archaeological deposits in the surrounding area. No artifacts were found in these shovel tests.
3 This work was completed as part of the ASC.

4

5 As part of the evaluation completed for RFA1, eleven additional shovel tests were excavated
6 near the area that was not previously excavated to support road maintenance work associated
7 with the Boardman Plant. No archaeological materials were found on the surface or in the
8 thirty 50 cm² units excavated. Based on the investigations and evaluation conducted by
9 WillametteCRA, the certificate holder reported that no evidence of archaeological site 35MW19
10 was found during the current pedestrian survey or shovel testing of the analysis area, which
11 included the area of the Carty Solar Farm.⁵³ On June 13, 2016, Oregon SHPO issued a
12 concurrence letter to PGE, stating that PGE demonstrated a good faith effort in relocating the
13 site 35MW19, and considering that no evidence of the site has been found in recent surveys,
14 SHPO concurred that the site is not eligible for listing in the NRHP.⁵⁴ On December 2, 2016
15 Oregon SHPO issued a concurrence letter to PGE stating that the certificate holder had
16 demonstrated a good faith effort to identify archaeological sites and objects, and the SHPO
17 concurred that the ~~proposed~~-Carty Solar Farm would have no effect on any significant
18 archaeological objects or sites. Based on the survey results and concurrence letter that SHPO
19 provided, the Council deleted Condition 11.1 in the Final Order on AMD1. Those findings were
20 re-affirmed by SHPO on March 8, 2017 via email to the Department with the previous 2016
21 concurrence letters attached. The 2017 email also notes no impacts to “archaeological objects”
22 or “archaeological sites”, pursuant to this Council standard. SHPO has provided no further
23 comment as part of Department-SHPO coordination on RFA3.

24

25 *Site 35MW15*

26 Site 35MW15 is located outside of but adjacent to the site boundary and analysis area. It
27 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 area.⁵⁵ 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 concluded that the site 35MW15 does not extend into the
32 analysis area.

33

34 *Archaeological sites and objects*

35 Exhibit S submitted by the applicant in support of RFA1 included an analysis of potential impacts
36 to historic, cultural, and archaeological resources for an approximately 321.5-acre disturbance
37 area within the RFA1 site boundary for the Carty Solar Farm. During the 2016 field survey
38 conducted for RFA1, two additional isolates (one a prehistoric artifact and the other a historic-

⁵³ CGS RFA 1 ExS 2018-02-14. p 5.

⁵⁴ CGS RFA 1 ExS 2018-02-14, Appendix S-1.

⁵⁵ CGS RFA 1 ExS 2018-02-14. p S-3.

1 period artifact) were identified. Neither isolate was recommended as eligible for listing in the
2 NRHP. The SHPO concurred with these findings and also noted in a March 8, 2017 email to ODOE
3 that the previous concurrence letters from SHPO in 2016 and the email concurred that these
4 two isolates were not eligible, and as a result would not be significantly impacted as
5 archaeological sites or objects.

6
7 *Discovery Measures for RFA3*
8 As previously noted, no additional field surveys or investigations were conducted for RFA2 or
9 RFA3. The area subject to RFA3 was surveyed in 2016 as part of investigations conducted for
10 RFA1 for the Carty Solar Farm.

11
12 As part of the certificate holder's assessment under RFA3, the certificate holder completed an
13 updated desktop review of the analysis area for both archaeological resources and historic-
14 built-environment resources that could be eligible for the National Register of Historic Places
15 (NRHP). Results of the desktop review identified no new archaeological resources and no new
16 surveys have been conducted for the analysis area. The desktop review identified no potentially
17 or likely-eligible, or eligible, historic/built-environment resources.

18
19 As noted above, no new field surveys or archaeological investigations were conducted for RFA3.
20 Updated records searches completed by the certificate holder for RFA3 did not identify any new
21 archaeological resources or surveys of the analysis area since RFA1 or RFA2.

22
23 The certificate holder submitted a letter to the SHPO on April 29, 2022 requesting concurrence
24 with their findings of no NRHP eligible or likely-eligible built-environment resources for RFA3
25 (RFA3 Attachment 8). As previously noted, the SHPO has previously concurred with a finding of
26 no significant impact to NHRP listed or likely eligible archaeological resources, "archaeological
27 objects" or "archaeological sites" within the analysis area under this Council standard on March
28 8, 2017. The certificate holder has reported no response to-date from SHPO as of June 3, 2022
29 on their findings of no NRHP eligible or likely-eligible historic, built environment resources
30 within the RFA3 analysis area under this Council standard.

31
32 *Protection Measures*
33

34 Council required an Inadvertent Discovery Plan for the original ASC and amended those
35 requirements in the Final Order on AMD1. During review of RFA1, the Confederated Tribes of
36 the Umatilla Indian Reservation (CTUIR) provided comments indicating that the ~~proposed~~ Carty
37 Solar Farm would be located within the ceded lands boundaries of the CTUIR. As described in
38 the CTUIR letter, the project area is within a historic travel corridor used by the CTUIR peoples,
39 and has a high possibility to encounter unmarked burials.⁵⁶ CTUIR expressed concern about
40 inadvertent discovery due to the ground disturbance activities. For these reasons, in the Final
41 Order on AMD1, the Council amended site certificate Condition 11.6, related to the certificate

⁵⁶ CGSAMD1 RFA Comment Tribal Government CTUIR. 2018-04-02.

1 holder's Inadvertent Discovery Plan, to address CTUIR's comment, and require coordination
2 with CTUIR to reduce potential adverse impacts on historic, cultural, and archaeological
3 resources. This condition, ~~as amended~~, will continue to apply to this site certificate and no
4 changes have been proposed or requested by the certificate holder as part of RFA3.

5
6 ~~In the Final Order on AMD2, Council also imposed conditions in Section 11.0 of the CGS site~~
7 ~~certificate that require the certificate holder to conduct pre-construction surveys in disturbance~~
8 ~~areas that have not been previously surveyed. This condition will continue to apply to this site~~
9 ~~certificate and no changes have been proposed or requested by the certificate holder as part of~~
10 ~~RFA3.~~

11
12 RFA3 proposes a change in the construction commencement and completion dates only. The
13 analysis area has been previously surveyed to Oregon SHPO standards, by qualified
14 professionals, and included subsurface investigations and evaluations in support of a
15 determination that no likely-eligible or eligible NRHP properties exist within the analysis area.
16 SHPO has previously concurred with those findings. The certificate holder has conducted
17 updated reviews of records and coordination with SHPO for RFA3 to ensure no new information
18 has been documented since RFA2 that could change previous findings. Previous Council
19 imposed conditions requiring additional survey of unsurveyed areas, and CTUIR coordination
20 for monitoring and the Inadvertent Discovery Plan, remain in place in the site certificate and no
21 changes have been requested by the certificate holder, reviewing agencies, or are
22 recommended by the Department for RFA3. An updated IDP, complying with the requirements
23 on the existing site certificate, was provided as Attachment 9 and dated Nov. 1, 2021 as part of
24 the updated documentation submitted by the certificate holder for RFA3 (see Attachment C of
25 this order). For all of these reasons, the Department recommends that Council continue to rely
26 upon previous findings and existing site certificate conditions, as previously amended, for
27 compliance with this Council standard.

28
29 **Conclusions of Law**

30
31 Based on the foregoing analysis, and subject to compliance with existing and amended
32 conditions, the Department recommends that Council continue to find that the facility, with
33 proposed ~~construction deadline extension~~~~changes~~, would continue to comply with the
34 Council's Historic, Cultural, and Archaeological Resources Standard.

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

36
37 (1) *Except for facilities described in section (2), to issue a site certificate, the Council must*
38 *find that the design, construction and operation of a facility, taking into account*
39 *mitigation, are not likely to result in a significant adverse impact to important*
40 *recreational opportunities in the analysis area as described in the project order. The*
41 *Council shall consider the following factors in judging the importance of a recreational*
42 *opportunity:*

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

***57

Findings of Fact

The certificate holder evaluates impacts to important recreational opportunities based on the potential of construction or operation of the facility, with proposed construction deadline extension 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

RFA1 evaluated potential project-related impacts to recreational resources located within 5 miles of the original Site Boundary for CGS and the RFA1 Site Boundary for the Carty Solar Farm, respectively. RFA1 addressed the same recreation resources that were evaluated in the 2011 ASC. RFA2 relied upon previous findings. For RFA3, the certificate holder reviewed the following sources previously relied upon for identifying recreational opportunities under this standard:

- “Find a Park,” Oregon Parks and Recreation Department website (OPRD 2018)124: Using the OPRD “Find a Park” data base, there are no parks identified within a 5-mile radius of the Area Subject to RFA 3.⁵⁸
- “Oregon National Historic Trail: Accessibility,” National Park Service website, (NPS n.d.): There have been no changes to the mapped location of the Oregon National Historic Trail since AMD2⁵⁹

⁵⁷ The facility is not a special criteria facility under OAR 345-0015-0310; therefore, OAR 345-022-0100(2) is not applicable.

⁵⁸ Oregon Parks and Recreation Department. Find A Park. Available:

<https://stateparks.oregon.gov/index.cfm?do=visit.find> , Accessed by the Department 2022-06-02.

⁵⁹ National Park Service. Oregon National Historic Trail. Available: <https://www.nps.gov/places/oregon-national-historic-trail.htm> , Accessed by the Department 2022-06-02.

1 • “Recreation in Morrow County,” Morrow County website (Morrow County n.d.): There
2 have been no Morrow County recreational opportunities added within a 5-mile boundary of
3 the area subject to RFA 3.⁶⁰

4 • Gilliam County Comprehensive Plan (Gilliam County 2017)¹²⁷: As stated on the Gilliam
5 County website, “the Gilliam County Comprehensive Plan and Land Development Ordinance
6 was most recently amended by the Gilliam County Court on May 3, 2017 when marijuana
7 business regulations were adopted.”⁶¹

8 • Morrow County Comprehensive Land Use Plan (Morrow County 2011)¹²⁸: The recreation
9 chapter of the Morrow County Comprehensive Plan was last updated in 2011.⁶²

10 Previous analysis led Council to find that only one important recreational opportunity is located
11 within the 5-mile analysis area: the Oregon National Historic Trail (ONHT), which runs east-west
12 approximately 2.1 miles south of the ~~proposed~~ Carty Solar Farm. This recreational opportunity
13 was identified and evaluated in the ASC. ~~and the~~ The Department ~~has~~ reviewed the sources
14 references and recommends that Council rely on previous evaluation and findings for the
15 identification of important recreational resources for RFA3.

16 Evaluation of Potential Impacts to Important Recreation Opportunities

17 Under the Council’s Recreation standard, the Council must find that, taking into account
18 mitigation, the facility, with proposed changes~~construction deadline extension~~, is not likely to
19 result in a significant adverse impact to those identified important recreational opportunities.
20 The Department presents its evaluation of potential impacts on the ONHT under RFA3 below.

21 Potential Direct or Indirect Loss of Recreational Opportunity

22 For reference, findings of facts and reasoning previously relied upon by Council are presented in
23 the subsections below.

24 Council has previously found that the Carty Solar Farm would not be located on or within the
25 segment of the ONHT that is within the analysis area. Therefore, the ~~proposed~~ Carty Solar Farm
26 would not physically disturb, or result in ground disturbance, to the important recreational

60 Morrow County Oregon, Recreation in Morrow County. Available:
<https://www.co.morrow.or.us/planning/page/recreation-morrow-county> . Accessed by the Department: 2022-06-02.

61 Gilliam County, Oregon. Gilliam County Comprehensive Plan and Zoning Ordinance. Available:
https://www.co.gilliam.or.us/departments/planning_department/comprehensive_plan_and_zoning_ordinance.php Accessed by the Department: 2022-06-02

62 Morrow County, Oregon. Morrow County Comprehensive Plan. Available:
<https://www.co.morrow.or.us/planning/page/comprehensive-plan> , Accessed by the Department: 2022-06-02.

1 opportunities identified within the analysis area. The ~~proposed~~-Carty Solar Farm would also not
2 require any temporary or permanent closure or removal of the Oregon National Historic Trail to
3 public use. For these reasons, the Council found that the Carty Solar Farm would not be
4 expected to result in direct or indirect loss to important recreational opportunities within the
5 analysis area.

6
7 The ONHT recreational opportunity was previously evaluated under this standard for the ASC,
8 RFA1 and RFA2. Council has previously found that the construction of the solar farm would not be
9 likely result in a significant impact on the segment of the ONHT within the analysis area. This
10 included findings that the ~~proposed~~ solar farm construction and operation would not have
11 significant direct or indirect (noise, visual or traffic) impacts on the use or access to this portion
12 of the ONHT because of its distance from the solar farm, and the use of access roads that would
13 not impact traffic in or out of the ONHT. For these reasons, the Department recommends that
14 Council continue to find that the construction and operation of the solar farm, ~~with existing~~
15 ~~conditions,~~ will not have a significant direct or indirect impact on the ONHT under this Council
16 standard.

17
18 *Potential Noise Impacts*

19
20 *Construction*

21
22 The ~~proposed~~-Carty Solar Farm would generate construction-related noise. Construction related
23 noise would be short-term and intermittent and would result from site clearing, excavation,
24 foundation work, and equipment installation. Construction equipment noise levels are
25 estimated to be less than 50 A-weighted decibels [dBA] at a distance of 5-miles, which is
26 equivalent to noise levels of light traffic. The ~~Oregon National Historic Trail~~ONHT is located
27 approximately 2.1-miles from the ~~proposed amended~~ site boundary; therefore, anticipated
28 construction-related noise levels would be expected to be greater than 50 dBA. RFA3 does not
29 propose any changes, or identify any new information, that would result in a change of these
30 facts.

31
32 Council previously imposed site certificate condition 13.1 to reduce noise impacts during
33 construction by requiring the use of exhaust mufflers on combustion engine-powered
34 equipment; and requires that the certificate holder establish a noise complaint response
35 system, and provide, upon request, noise complaint records to the Department. Based on the
36 distance of construction-related noise, and short-term, intermittent nature of construction
37 activities, and relatively quiet noise levels, and the limited scope of RFA3, the Department
38 recommends that Council rely on previous evaluation and findings, and find that a change in
39 the commencement/completion of construction dates for the solar farm would not be likely to
40 result in significant adverse noise impacts at the Oregon National Historic Trail segment within
41 the analysis area.

42
43 *Operation*

1 The certificate holder's analysis concluded that the Carty Solar Farm would result in potential
2 maximum overall A-weighted sound power level output of 44 dBA at 400 feet. In RFA1, the
3 certificate holder provided a noise analysis of the ~~proposed~~ Carty Solar Farm including the
4 following sources:

5

- 6 • 25 inverters at 87 dBA
- 7 • 25 Step-up transformers at 94 dBA

8

9 As presented in RFA1 Exhibit X, the noise modeling analysis for operational noise demonstrates
10 that noise generated by the ~~proposed~~ Carty Solar Farm would be less than 30 dBA, equivalent
11 to the noise level of a soft whisper, at the Oregon National Historic Trail.⁶³ These findings were
12 also relied upon for RFA2. Based on the certificate holder's prior noise modeling assessment,
13 the Council has previously found that operation of the ~~proposed~~ Carty Solar Farm would not be
14 likely to result in significant adverse noise impacts to the important recreational opportunity
15 within the analysis area. Because RFA3 requests only a change in construction commencement
16 and completion dates, the Department recommends that Council continue to rely upon
17 previous findings that operational noise would not have a significant impact on the ONHT.

18

19 *Potential Traffic Impacts*

20

21 *Construction*

22

23 In RFA1, the certificate holder represented that the ~~proposed~~ Carty Solar Farm would generate
24 construction-related traffic, not expected to exceed 400 trips per day. The certificate holder
25 evaluated construction-related traffic and identified that they would utilize I-84 and Tower
26 Road. The nearest segments of the Oregon National Historic Trail are accessed from State
27 Route 74, 9 miles west of Tower Road on Interstate 84, or from Bombing Range Road, 8 miles to
28 the east of Tower Road on Interstate 84.⁶⁴ For these reasons, based on the distance from
29 Oregon National Historic Trail access roads to Tower Road, Council previously found that
30 construction-related traffic would not result in significant adverse impacts to the important
31 recreational opportunity within the analysis area. Based upon previous evaluation and Council's
32 previous findings that construction of the solar farm would not have significant traffic impacts
33 on the ONHT, and the limited scope of RFA3, the Department recommends that Council rely
34 upon previous findings for RFA3.

35

36 While not related to impacts under the Council's Recreation standard, as described in Section
37 III.M. *Public Services*, Council has previously amended Condition 6.17 and imposed Condition
38 6.27. These conditions require that the certificate holder, prior to and during construction,
39 evaluate construction related traffic to confirm whether a Traffic Impact Assessment (TIA) is

⁶³ CGS RFA 1 ExX 2018-02-12

⁶⁴ CGS RFA 1 ExT 2018-02-11. p T-2.

1 required in accordance with MCZO Section 3.010(N)(1); the conditions also require that the
2 certificate holder develop and implement a Construction Traffic Management Plan to minimize
3 traffic impacts on Tower Road. These requirements and conditions will continue to apply to the
4 site certificate for RFA3.

5

6 *Operation*

7

8 The Council has previously found that the Carty Solar Farm would generate operational-related
9 traffic. However, the certificate holder has previously committed that limited, operational
10 traffic would not utilize roads providing access to the ONHT segment within the analysis area,
11 other than Tower Road. Because operation of the ~~proposed~~ Carty Solar Farm would not
12 substantially increase trip generation on Tower Road, the Council previously found that
13 operational-traffic impacts would not be likely to result in a significant adverse impact to the
14 important recreational opportunity within the analysis area. Due to the limited scope of RFA3,
15 the Department recommends that Council continue to rely on its previous findings that
16 operation-related traffic would not have a significant impact on the ONHT.

17

18 *Potential Visual Impacts*

19

20 In the Final Order on AMD1, Council found that the Carty Solar Farm and its supporting facilities
21 would result in visible facility structures including solar modules with a maximum height of 10
22 feet; inverters with a maximum height of 11 feet; and, a 34.5 KV transmission line with 70-foot-
23 tall wooden poles.

24

25 As part of their analysis and evaluation of potential visual impacts of the solar farm under RFA1,
26 and its supporting facilities, the certificate holder completed a zone of visual influence (ZVI)
27 analysis.⁶⁵ A ZVI analysis identified visibility based on topography but does not account for
28 screening from vegetation or structures.

29

30 Council has previously found that the Carty Solar Farm and its supporting facilities would be
31 visible from several small areas along the Oregon National Historic Trail segment within the
32 analysis area. Council has also previously found that given the distance of over 2 miles from the
33 ~~proposed amended~~ site boundary to the nearest point of the ONHT, and the overall height of
34 ~~proposed~~ solar components, that visual impacts of the ~~proposed~~ solar farm would not likely
35 result in a significant adverse impact to this important recreational opportunity. Because RFA3
36 is requesting only a change in the construction commencement and completion dates, the
37 Department recommends that Council rely upon previous findings for this standard and
38 continue to find that the solar farm will not result in significant visual impacts on the ONHT
39 under this standard.

40

⁶⁵ PGE Carty RFA No1 RAI Responses.

1 **Conclusions of Law**

2

3 Based on the foregoing findings of fact and conclusions, and subject to compliance with existing
4 site certificate conditions, the Department recommends that Council continue to find that the
5 facility, with proposed construction deadline extension, would continue to comply with the
6 Council's Recreation standard.

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

8

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

15

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

20 ***

21

22 **Findings of Fact**

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

26

27 In RFA3, the certificate holder relies upon the same assumptions relied up in the Final Order on
28 RFA1 that supported the conclusions under the Public Services standard. Construction of the
29 Carty Solar Farm would take approximately nine months but could be ongoing for up to 24
30 months.⁶⁶ The certificate holder anticipates there to be an average of approximately 60 workers
31 on site and up to 130 workers on site during peak construction periods. The certificate holder
32 estimates that peak construction traffic would include up to 28 truck trips per day (round trip).
33 The certificate holder estimates that combining truck trips and workforce trips, and applying a
34 1.25 carpooling factor, up to 150 construction vehicles (or 300 round trips) per day would be
35 added to the background traffic patterns along the primary transportation route, I-84, which
36 would not be expected to significantly impact traffic safety service providers. Operational

⁶⁶ CGS RFA 1 ExB 2018-02-09.

1 personnel would be approximately one to two workers. The construction commencement and
2 completion deadline extensions requested in RFA3 would not impact these assumptions.

3

4 *Sewer and Sewage Treatment; Stormwater Drainage*

5

6 The Carty Solar Farm and its supporting facilities would generate sewage during construction
7 and operation. During construction, portable toilets managed by a licensed third-party
8 contractor would be utilized for onsite workers and sewage disposal. The licensed third-party
9 contractor would maintain and dispose of sewage generated at a licensed treatment facility.

10

11 Operational sewage generated by on-site personnel is managed by an on-site septic system
12 which consists of a septic tank and drain field located to the south and southwest of the Carty
13 Generating Station.⁶⁷ The Department recommends Council find that the construction and
14 operation of the ~~proposed~~-Carty Solar Farm and its supporting facilities would not result in
15 adverse impacts to public or private sewage treatment providers because operational waste
16 would not be connected to public or private sewage treatment facilities.

17

18 The ~~proposed~~-Carty Solar Farm and its supporting facilities would generate stormwater during
19 rain events. During construction, stormwater runoff would be minimized through
20 implementation of best management practices in accordance with a 1200-C National Pollutant
21 Discharge Permit to be obtained from Oregon Department of Environmental Quality prior to
22 construction, as required per Condition 9.1. During operation, stormwater would be minimized
23 through site grading that would allow stormwater infiltration into the ground. There is not a
24 change in fact or law since the last executed site certificate, therefore, the Department
25 recommends Council find that the construction commencement and completion deadline
26 extensions requested in RFA3 would not result in use of or impacts to public or private
27 stormwater drainage facilities.

28

29 *Water*

30

31 During construction, approximately 8 million gallons of water would be used for dust
32 abatement, equipment and vehicle washing, washing concrete trucks, and fire suppression. As
33 discussed further in Section III.Q.3., *Water Rights*, the certificate holder would source this
34 limited water use from the Carty Reservoir under an existing water right owned by the
35 certificate holder. Because the certificate holder's source for temporary water used for
36 construction is under its existing water right and not from another public or private source, the
37 Department recommends Council find that construction of the Carty Solar Farm and its

⁶⁷ Previously approved sewage disposal was pumped into the Boardman Coal Plan sewage lagoons, however, as described in RFA3 and provided in facility compliance documentation, the certificate holder installed and now uses an on-site septic system. CGSAMD3 OPS Septic System Install Verification_Combined 2021-10-06 and 2021-11-24, and RFA3, Section 6.13.

1 supporting facilities would not result in impacts to the ability of public or private providers of
2 water to provide services.
3
4 Operational water use would be for solar panel washing which would use approximately 0.65 to
5 1.65 million gallons of water per panel washing event. Panel wash water would be obtained
6 from Carty Reservoir or a municipal source. Potable water used by operational personnel at the
7 O&M building would be obtained from Boardman/Carty potable water system sourced from an
8 existing onsite well, hauled in from nearby water systems, or a private provider. Operational
9 water withdrawn from Carty Reservoir and a facility-specific well would not impact on the
10 ability of public or private providers to provide their services because the water use is minimal
11 and the sources would not be from a public or private water source.
12

13 *Solid Waste Management*

14
15 Construction associated with the Carty Solar Farm is anticipated to result in approximately 5
16 tons per week of waste including domestic refuse, office waste, packaging materials, steel cut-
17 offs, and construction materials.⁶⁸ Construction materials include concrete waste, wood, plastic,
18 glass, and erosion control materials. Solid waste generated could include hazardous materials,
19 including oil rags, depleted batteries, as well as vehicle maintenance solvents and oils which
20 would be disposed of at Columbia Ridge Recycling and Landfill in Arlington, Oregon. Solid waste
21 generated would be reduced and recycled as discussed in Section III.N., *Waste Minimization*,
22 however the remaining solid waste would be disposed at Sanitary Disposal Inc. in Hermiston,
23 Oregon, Finley Buttes Landfill in Boardman, or Columbia Ridge Recycling and Landfill in
24 Arlington, Oregon.
25

26 Waste generated during operations would originate from office and maintenance activities and
27 would be disposed through the existing Carty Generating Station plant services building. The
28 certificate holder anticipates hazardous waste materials that include oil rags, spent batteries,
29 and vehicle maintenance solvents and oil to be considered by the Department of Environmental
30 Quality (DEQ) as “Conditionally Exempt Generator,” which is a classification reserved for
31 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 the construction deadline
37 extensions. Waste reduction, recycling, management and training helps reduce waste that
38 would be disposed of by local providers of solid waste services. Therefore, the Council finds
39 that waste generating during construction and operation of the ~~proposed~~ Carty Solar Farm

⁶⁸ CGS RFA 1 ExV 2018-02-12.

1 would not result in significant adverse impacts on the ability of public or private providers to
2 provide solid waste management services.

3

4 *Housing, Health Care and Schools*

5

6 The certificate holder assumes there would be an average of approximately 60 workers on site
7 and up to 130 workers on site during peak construction periods. Temporary construction
8 personnel would relocate to surrounding communities such as Hermiston, Boardman, and
9 Irrigon and rely on temporary lodging and some personnel may be able to commute from their
10 permanent residences. Construction workers from outside the region would be utilized,
11 however, the certificate holder would also use the existing industrial base/skilled labor in the
12 region to be able to provide workers for the solar facility.⁶⁹ The certificate holder does not
13 assume workers would bring their families because of the shorter duration of the work.

14

15 Based on the Oregon Housing and Community Services online demographic and housing profile
16 for Morrow County, approximately 4.5% of rental units in Morrow County are vacant.⁷⁰ There
17 are approximately 66 hotels in the Boardman, Hermiston, Pendleton, and Tri-Cities Washington
18 area, which are all within 70 mile driving area. Temporary workers often travel and stay in
19 recreational vehicles (RVs). Approximately 20 recreational vehicle parks are available
20 within 45 miles driving distance of the facility in Morrow and Umatilla Counties, including at
21 least two in Boardman and three in or near Irrigon, in Morrow County, with the remainder in
22 the Hermiston and Pendleton areas in Umatilla County.⁷¹ Even if the maximum number of
23 workers are temporary workers traveling to the analysis area, the Department recommends
24 there would be a sufficient amount of housing available and there would not be an adverse
25 impact on public and private housing.

26

27 The Morrow County School District operates schools in Boardman and Lone, Oregon. The
28 certificate holder anticipates temporary workers who relocate to the area for construction to
29 travel alone and not bring families and workers that already live within the analysis area and
30 have children would likely already be enrolled in educational services with the school district.
31 Because there would not be a significant number of school-age children added to the school
32 district, the Department recommends Council find that construction of the facility would not
33 impact the ability of educational service providers to provide their services.

34

35 In the event of an emergency, workers would receive healthcare for Level III Traumas at Good
36 Shepherd Community Hospital in Hermiston which is approximately 40 miles from the facility

⁶⁹ CGSAPPDoc44 Complete ASC 2011-05, CGS ASC Exhibit U, Section U.3.8.

⁷⁰ CGS RFA 1 ExU 2018-02-15. Section U.4.5, Exhibit U reference: Oregon Housing and Community Services. 2018. Online Demographic & Housing Profile for Morrow County. <http://www.oregon.gov/ohcs/DO/shp/profiles/MorrowCounty-Housing-Profile.pdf>. Department verified on May 23, 2020 that this data is the most recent data available.

⁷¹ CGS RFA 1 ExU 2018-02-15. Section U.2.5.

1 site.⁷² Mid-Columbia Medical Center in the Dalles also has a Level III Trauma Center and is 80
2 miles from the facility. Oregon Health and Sciences University in Portland has a Level I Trauma
3 Center and is approximately 165 miles from the facility site. Emergency medical transport
4 would be provided by the Morrow County Health District Emergency Medical Services, which
5 maintains ambulances in Boardman and Irrigon. The Boardman Rural Fire Protection District is
6 also responsible for fire, rescue, and emergency medical services at the location of the facility.
7 Council previously imposed Conditions 8.2 and 8.3 requiring that the certificate holder
8 implement a site health and safety plan, which would minimize potential onsite risks resulting
9 in use of local health care providers. Based on the relatively low number of workers, and
10 existing availability of housing, health care facilities and schools, the Department recommends
11 Council find that construction of the ~~proposed~~ Carty Solar Farm would not be likely to result in a
12 significant adverse impact on the ability of public and private providers of housing, schools, and
13 health care to provide services. Because there is a sufficient amount of medical service
14 providers that would respond and provide services in the event of an emergency, the
15 Department recommends that construction of the facility would not adversely impact the
16 ability of these medical service providers to provide services to others.

17
18 Operational personnel is anticipated to be one to two workers for the Carty Solar Farm. It is not
19 likely that two individuals could have an adverse impact on housing, medical services, or
20 educational services within the analysis area therefore, the Department recommends Council
21 find that operation of the facility would not impact the ability for public and private providers of
22 housing, health care and schools to provide their services.

23
24 *Traffic Safety*
25
26 During the up to two-year construction period, the certificate holder anticipates employing an
27 average of 60 workers, with a maximum of 130 workers employed during peak construction.
28 The certificate holder estimates that peak construction traffic would include up to 28 truck trips
29 per day (round trip). The certificate holder estimates that combining truck trips and workforce
30 trips, and applying a 1.25 carpooling factor, up to 150 construction vehicles (or 300 round trips)
31 per day would be added to the background traffic patterns along the primary transportation
32 route, I-84, which would not be expected to significantly impact traffic safety service providers.
33 Potential traffic-related impacts from dust, delays, congestion, and interruption to agricultural
34 activities would be experienced on the nearby Tower Road.

35
36 Under the Morrow County Zoning Ordinance (MCZO) Section 3.010(N), in EFU zones, a
37 Transportation Impact Analysis (TIA) would be required if project-related vehicle trips exceeded
38 400 trips per day. To address this requirement, Council previously imposed Condition 6.27
39 under the Public Services standard which requires the finalization of a Traffic Management Plan

⁷² According to the Oregon Health Authority, trauma level refers to a hospital's ability to provide emergency medical response, patient triage, patient transport, hospital transfers, and trauma team activation. CGS RFA 1 ExU 2018-02-15. Section U.3, Table U-1.

1 that includes measures that would reduce passenger car equivalent trips per day including
2 carpooling, staggering worker start times, installation of temporary traffic controls, funding for
3 overtime to provide additional traffic patrols along Tower Road, coordination of random patrols
4 along Tower Road, and/or frequency coordination with the Morrow County Sheriff's office to
5 inform them of periods of increased traffic to the site.⁷³ Condition 6.27 also requires the
6 certificate holder track construction-related traffic to confirm if peak construction traffic
7 exceeds 400 car trips per day, in which case, the certificate holder would conduct a Traffic
8 Impact Assessment under Morrow County's development criteria. Previously approved
9 Condition 6.17 requires the implementation of the final Construction Traffic Management Plan.
10 RFA1 Attachment 1 provides certificate holder correspondence with Morrow County confirming
11 that (MCZO) Section 3.010(N) applicable substantive criteria and the Morrow County
12 Transportation System Plan (TSP) have not changed from the review of RFA1 (2018) and RFA3
13 (2022).

14
15 Long-term operational traffic would generate approximately 2 passenger car or pickup truck
16 trips per day, with infrequent maintenance vehicle trips. Based on compliance with previously
17 evaluated facts and imposed conditions, the Department recommends Council find that
18 construction and operational-traffic impacts from the Carty Solar Farm would not be likely to
19 result in a significant adverse impact to the ability of public or private providers of traffic safety.

20
21 Air Traffic
22
23 Carty Solar Farm and its supporting facilities would result in visible facility structures including
24 solar modules with a maximum height of 10 feet; inverters with a maximum height of 11 feet;
25 and, a 34.5 kV transmission line with 70-foot-tall wooden poles. Facility construction and
26 operation could result in impacts to navigable airspace from potential solar panel glare,
27 outdoor light illumination, and tall structures located in proximity to public and private airports.
28 Airports within proximity to the proposed site include the Boardman Airport, a public airport
29 located approximately 13 miles north, and Arlington Municipal Airport, approximately 30 miles
30 northwest of the proposed site.⁷⁴

31
32 Required approvals include a Determination of No Hazard to Air Navigation (Form 7460-1)
33 obtained from Federal Aviation Administration (FAA), which confirms that FAA conducted an
34 aeronautical study under the provisions of 49 U.S.C., Section 44718 and applicable Title 14 of
35 the Code of Federal Regulations (CFR), part 77, and find that facility structures would not
36 exceed obstruction standards and would not be a hazard to air navigation. The FAA

⁷³ During the review of RFA1, the Morrow County Sheriff's Office previously expressed concerns from the workforce and traffic issues associated with the construction of the facility and echoed the same concerns in its letter for RFA3. The Sheriff's Office's concerns are addressed by the mitigation and coordination measures outlined in the Traffic Management Plan and associated conditions.

⁷⁴ CGSAMD3 DPO Reviewing Agency Comment ODAV 2022-07-12.

1 determination has not been made but will be made prior to construction, if determined
2 applicable by Oregon Department of Aviation (ODAV).

4 Reviewing agency comments from ODAV on the DPO included the following⁷⁵:

- 6 Regardless of prior review, if any, all ODAV determinations are valid for 18
7 months after the determinations' effective date. If the determinations have
8 expired, the applicant is required to renotify the ODAV of the proposed
9 construction.
- 10 • All project elements are subject to compliance with FAA Part 77.9 Construction
11 or alteration requiring notice (a-d), FAA Part 77.17 Obstruction standards (a-b)
12 and Obstruction Standards of OAR 738-70-0100 if they exceed 200 feet in height
13 or are:
 - 14 ○ within 20,000 ft of a public use or military airport and exceed a 100:1
15 surface from any point on the runway of each airport with at least one
16 runway more than 3,200 ft.
 - 17 ○ within 10,000 ft of a public use or military airport and exceed a 50:1
18 surface from any point on the runway of each airport with its longest
19 runway no more than 3,200 ft.
 - 20 ○ within 5,000 ft of a public use heliport which exceeds a 25:1 surface
 - 21 ○ To make this determination, any new or replaced supporting facilities or
22 structures more than 200 feet in height or within the distances provided
23 above must undergo airspace review by the FAA and ODAV.

25 Similar to FAA's review, ODAV evaluates standards in CFR: *Title 14. Aeronautics and Space: PART 77—Safe, Efficient Use, and Preservation of the Navigable Space*. To address potential
26 impacts to navigable airspace from facility structures, ODA recommends that the certificate
27 holder be required to, first, obtain ODAV review of Notice of Proposed Construction or
28 Alteration (Form 7460-1); to then be followed by review of Form 7460-1 by the FAA. This two-
29 step process affords ODAV the opportunity to evaluate under OAR Chapter 738 whether
30 proposed structures would result in obstructions to airspace at public use airports and private
31 airstrips and determine whether, based on their evaluation, ODAV should notify its
32 stakeholders of an opportunity to comment through the FAA review process. Because of the
33 nexus under ORS 836.535(2) of an ASC, ODAV and FAA evaluation of structures, the two-step
34 process would provide the most comprehensive opportunity for structure review and
35 evaluation of potential impacts to air traffic providers by stakeholders (public) and state and
36 federal agencies.

38
39 Based on the above reasoning and analysis, and in response to reviewing agency comments on
40 the DPO, the Department recommends Council amend Condition 5.6 as follows.

⁷⁵ CGSAMD3 DPO reviewing Agency Comment ODAV 2022-07-12.

1

2 **Recommended Amended Condition 5.6: The certificate holder shall:**

3 i. Before beginning construction of Unit 1, ~~the certificate holder must~~ submit a Notice of
4 Proposed Construction or Alteration to the Federal Aviation Administration (FAA) and
5 the Oregon Department of Aviation identifying the final location of the facility exhaust
6 stack. The certificate holder must promptly notify the Department of the responses
7 from the FAA and the Oregon Department of Aviation.

8 ii. Before beginning construction of the Carty Solar Farm,
9 a. First, submit to and receive responses from the Oregon Department of Aviation
10 (Aviation) of 7460-1 Notice of Proposed Construction or Alteration Forms for all
11 aboveground facility components. The certificate holder shall provide copies of
12 Aviation responses, which must be consistent with ORS 836.535(2), to the
13 Department, and shall respond to Aviation marking and lighting recommendations,
14 if applicable.

15 b. Second, once Aviation responses on the 7460-1 forms are received, submit to and
16 receive determinations from the Federal Aviation Administration (FAA) for all
17 aboveground facility components. The certificate holder shall provide copies of FAA
18 determinations to the Department.

19 c. Within 5-days of construction, certificate holder shall submit 7460-2 forms to FAA
20 and Aviation and shall report both timing of submission and any results to the
21 Department.

22 d. The height of any new or replaced supporting facilities or structures should not
23 penetrate FAA Part 77 Imaginary Surfaces, as determined by the FAA and ODAV.

25 Based on compliance with the above recommended amended condition, the Department
26 recommends Council finds that the facility, with proposed construction deadline extension,
27 would not be likely to result in significant adverse impacts on the ability of air traffic service
28 providers to provide service.

29

30 ***Fire Services***

32 The facility is located in an area that is subject to high probability of large and rapidly spreading
33 wildfires which is serviced by the Boardman Fire Rescue District which is responsible for fire,
34 rescue, and emergency medical services at the location of the facility.⁷⁶

36 The certificate holder explains that the Carty Solar Farm would adhere to all federal, state, and
37 local requirements for fire safety, including the 2014 Oregon Fire Code Section 605.12 and

⁷⁶ RFA Attachment 4. Updated Service Provider Letters, Boardman Fire Rescue District, 01-14-2022.

1 National Fire Protection Association Standards for electrical codes.^{77,78} Attachment 4 of RFA3
2 includes a January 14, 2022 letter from the Boardman Fire Rescue District (Fire District)
3 indicating that they reviewed a fire/emergency plan for the facility provided to them by the
4 certificate holder. This letter also indicates that 2014 Oregon Fire Code 605.12.2 provisions
5 apply to the facility, which include a requirement that the area under the solar installation
6 either be graveled or covered in a noncombustible base, as acceptable to the local fire code
7 official. However, the 2019 Oregon Fire Code, in place at the time of this order, moved code
8 provisions applicable to solar installations to Chapter 12, which includes Section 1204 for Solar
9 Power Photovoltaic Power Systems. Importantly, Chapter 12, Section 1201.1 states;

10
11 “The provisions of this chapter shall apply to the installation, operation and maintenance of
12 energy systems used for generating or storing energy. It *shall not apply* to equipment
13 associated with the generation, control, transformation, transmission, or distribution of
14 energy installations that is *under the exclusive control of an electric utility or lawfully*
15 *designated agency.*”⁷⁹ [Emphasis added]

16
17 Because an EFSC energy facility may be regulated by an electric utility, such as Portland General
18 Electric Company, and EFSC energy facilities are regulated by EFSC, the provisions of Section 12
19 of the 2019 Oregon Fire Code cannot be directly required by EFSC or a local fire code official.⁸⁰
20 However, an applicant or certificate holder may include code provisions as representations in
21 response to Fire District requests or as methods to minimize or mitigate impacts to public
22 service providers by reducing the risk of fires to and from the operation of the solar facility,
23 similar to what PGE has committed to. Council previously imposed Condition 8.7 requiring that
24 the certificate holder, during construction and operation consult with the Fire District to
25 develop and implement fire safety plans that address the risk of fire and appropriate responses
26 to any fires that occur on the facility site. This condition applies to the ~~proposed~~-Carty Solar
27 Farm and would require that the certificate holder demonstrate whether the existing plan

⁷⁷ CGS RFA 1 ExU 2018-02-15. Section U.2.7.

⁷⁸ The 2014 Oregon Fire Code sections 605.12.1 through 605.12.3 identified codes for the installation of Ground-Mounted Solar Photovoltaic Power Systems including provisions for gravel or other noncombustible base and security barriers, when required by the fire code official. However, the 2019 Oregon Fire Code (OFC) created Chapter 12 for Energy Systems, which includes Section 1204 for Solar Power Photovoltaic Power Systems. The noncombustible base Section that was 605.12.2 in the 2014 OFC is now Section 1204.4 in the 2019 OFC.

⁷⁹ <https://codes.iccsafe.org/content/OFC2019P1/chapter-12-energy-systems>. Accessed 05-26-2022.

⁸⁰ ORS 469.401(4): Nothing in ORS chapter 469 shall be construed to preempt the jurisdiction of any state agency or local government over matters that are not included in and governed by the site certificate or amended site certificate. Such matters include but are not limited to employee health and safety, building code compliance, wage and hour or other labor regulations, local government fees and charges or other design or operational issues that do not relate to siting the facility.

1 covers fire safety requirements of the ~~proposed~~ Carty Solar Farm, or whether the plans needs
2 to be revised.

3
4 To address on-site fire hazards the Fire District states that it requires access to a consistent
5 water supply which could be from a water tank or on-site fire hydrant(s). The certificate holder
6 explains that the site has multiple fire hydrants that can be used by the Fire District, and that
7 the hydrants are supplied by either the electric fire pump or the backup diesel fire pump with
8 water from two existing fire water tanks. There is also a water supply hydrant at the Carty
9 Reservoir intake structure, where water for this connection is supplied directly from the Cary
10 Reservoir by one of the three raw water pumps.⁸¹

11
12 Based on compliance with existing conditions, the Department recommends the Council find
13 that construction and operation of the facility would not to be likely to result in a significant
14 adverse impact to the ability of public or private fire service providers to provide services.

15
16 *Police Protection*

17
18 Law enforcement services in the analysis area are provided by Morrow County Sheriff's Office.
19 Previous concerns associated with construction of the facility raised by the Sheriff's Office
20 during the review of RFA1, were impacts from increased traffic off of Tower Road workforce
21 issues and impacts to regional farm and dairy activities.

22
23 In RFA3, the certificate holder provides an updated letter from the Morrow County Sheriff's
24 Office which reiterates the same concerns raised in the letter from RFA1 yet states that they do
25 not have concerns about the construction deadline extensions would impact their ability to
26 provide services to the site as long as the mitigation measures addressed in the finalization of a
27 Traffic Management Plan are implemented. As discussed above under the *Traffic Safety*
28 subsection, Condition 6.27 requires the finalization of a Traffic Management Plan that includes
29 coordinating with the Sheriff's Department to address their specific concerns as well as
30 measures funding for overtime to provide additional traffic patrols along Tower Road,
31 coordination of random patrols along Tower Road, and/or frequency coordination with the
32 Morrow County Sheriff's office to inform them of periods of increased traffic to the site.
33 Condition 6.17 requires the implementation of the final Construction Traffic Management Plan.

34
35 Further, Council previously imposed condition 8.1 requiring that, during construction and
36 operation, the certificate holder provide on-site security and establish good communication
37 with Morrow County Sheriff's Office. Based on compliance with existing conditions, the
38 Department recommends Council find that construction and operation of the ~~proposed~~ Carty
39 Solar Farm would not to be likely to result in a significant adverse impact to the ability of public
40 or private police protection service providers to provide services.

⁸¹ CGSRFA3 Complete RFA Section 6.13 2022-06-10.

1 **Conclusions of Law**

2

3 Based on the foregoing analysis, and subject to the existing conditions, the Department
4 recommends Council find that the facility, with proposed construction deadline extension,
5 would continue to comply with the Council's Public Services standard.

6 **III.N. Waste Minimization: OAR 345-022-0120**

7

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

10

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

15

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

19

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

24 ***

25 **Findings of Fact**

26 *Solid Waste*

27

28

29 Construction of the Carty Solar Farm would result in approximately 5 tons per week of waste
30 including domestic refuse, office waste, packaging materials, steel cut-offs, and construction
31 materials. Construction materials include concrete waste, wood, plastic, glass, and erosion
32 control materials. Construction waste could include some hazardous materials, including oil
33 rags, depleted batteries, as well as vehicle maintenance solvents and oils. As discussed in
34 Section III.M., *Public Services*, wastes not recycled would be disposed of in Columbia Ridge
35 Recycling and Landfill in Arlington, Oregon, Sanitary Disposal Inc. in Hermiston, Oregon, Finley
36 Buttes Landfill in Boardman, and/or Columbia Ridge Recycling and Landfill in Arlington, Oregon.

37

38 During operation, the certificate holder expects to generate small amounts of solid waste,
39 consisting primarily of office and maintenance waste. Waste generated during operations
40 would be disposed through its existing Carty Generating Station plant services building. The
41 certificate holder anticipates to be a "Conditionally Exempt Generator," which is a DEQ
42 classification reserved for organizations that generate less than 220 pounds of hazardous waste
43 per month.

1 Council previously imposed Condition 6.3 and 10.22 requiring that the certificate holder, during
2 construction and operation, develop Waste Management Plans that would implement waste
3 reducing measures including training employees to segregate and recycle recyclable materials.
4 These conditions would continue to apply to the facility, with proposed changes. Therefore, the
5 Department recommends Council find that the facility, with extended construction deadlines
6 would continue to minimize and manage solid waste, resulting in minimal adverse impacts on
7 surrounding and adjacent areas to the ~~proposed~~-Carty Solar Farm.

8

9 *Wastewater*

10

11 Construction and operation of the Carty Solar Farm would generate wastewater that would be
12 disposed of primarily by evaporation and seepage into soils. During construction, wastewater
13 would be generated from washing equipment and vehicles, washing concrete trucks after
14 delivery of concrete loads, and fire suppression.

15

16 The certificate holder maintains an existing Water Pollution Control Facilities (WPCF) permit
17 (100189), issued by Oregon Department of Environmental Quality (DEQ) which is governed and
18 incorporated into the site certificate. The WPCF authorizes wastewater disposal through
19 evaporation and seepage from construction-related waste water and authorizes the disposal of
20 wash water for operational solar panel wash water. Under previously-imposed Condition 10.28
21 solar panel wash water is permitted to be discharged through evaporation or infiltration into
22 the ground at the point of application and the use of chemicals, soaps, detergents and heated
23 water is prohibited. Any potential wastewater generated from stormwater runoff during
24 construction would be managed in accordance with the BMPs described in the NPDES 1200-C /
25 Erosion and Sediment Control Plan until that permit is terminated. Condition 9.5 requires the
26 certificate holder to monitor and repair any erosion concerns during operations.

27

28 Therefore, based on the forgoing analysis and compliance with existing conditions, the
29 Department recommends Council find that the facility, with proposed construction deadline
30 extension, would continue to minimize and manage wastewater, resulting in minimal adverse
31 impacts on surrounding and adjacent areas from construction of the ~~proposed~~-Carty Solar
32 Farm.

33

34 **Conclusions of Law**

35 Based on the foregoing analysis and subject to existing conditions, the Department
36 recommends Council find that that facility, with proposed deadline extensions, would continue
37 to comply with the Council's Waste Minimization standard.

38 **III.O. Division 23 Standards**

39

40 The Division 23 standards apply only to "nongenerating facilities" as defined in ORS
41 469.503(2)(e)(K), except nongenerating facilities that are related or supporting facilities. The

1 facility is not a nongenerating facility as defined in statute, and therefore Division 23 is
2 inapplicable to the requested amendment.

3

4 **III.P. Division 24 Standards**

5

6 The Council's Division 24 standards include specific standards for siting facilities including wind,
7 underground gas storage reservoirs, transmission lines, and facilities that emit carbon dioxide.
8 The only applicable Division 24 specific standard to the components included in the
9 amendment request is Siting Standards for Transmission Lines (OAR 345-024-0090).

10 It is noted that OAR 345-024-0550 through -0600 applies to the Carty Generating Station, for
11 which the certificate holder has complied. The facility components included in the amendment
12 request would not emit carbon dioxide emissions regulated under the Council's standard.

13 Therefore, the ~~proposed~~ facility components are not required to demonstrate compliance with
14 the Council's Carbon Dioxide Standard and is not evaluated in this order.

15

16 **III.P.1. Siting Standards for Transmission Lines: OAR 345-024-0090**

17

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

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

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

26

27 **Findings of Fact**

28

29

30 *Electric Fields*

31 Electric fields around transmission lines are produced by the presence of an electric charge,
32 measured as voltage, on the energized conductor. Electric field strength is directly proportional
33 to the line's voltage; increased voltage produces a stronger electric field.

34 In RFA1, the certificate holder modeled electric fields, magnetic fields, radio interference and
35 television interference within the boundaries of the study area. The model used a methodology
36 developed by the Bonneville Power Administration (BPA) and the EMF estimates are computed
37 for a height of 1 meter aboveground. The outputs used for calculating the EMF strengths are
38 assumed to be typical peak-load outputs from the generators and are therefore higher than the
39

1 nominal outputs.⁸² Table AA-1 and Figure AA-1 of RFA1 Exhibit AA, modeled electric fields for
2 the proposed 34.5 kV interconnection transmission line options range from 0.01 to 8.83 kV/m.
3 While the maximum modeled electric field is 8.83-kV per meter, it remains below the 9-kV per
4 meter threshold set forth in OAR 345-024-0090(1). Therefore, based on the certificate holder's
5 modeling for RFA1 and that the standard and the proposed transmission lines have not changed
6 since RFA1, the Department recommends Council find that the proposed 34.5 kV
7 interconnection transmission line would not exceed 9-kV per meter at one meter above ground
8 level.

9

10 *Induced Voltage and Current*

11

12 The Siting Standards for Transmission Lines requires the Council to find that the certificate
13 holder "can design, construct and operate the proposed transmission line so that induced
14 currents resulting from the transmission line and related or supporting facilities will be as low as
15 reasonably achievable."

16

17 The certificate holder describes that induced currents from the proposed 34.5 kV
18 interconnection transmission line would be as low as reasonably achievable. Council previously
19 imposed Condition 6.5, requiring that the certificate holder design, construct and operate
20 transmission lines in accordance with requirements of the National Electrical Safety Code
21 (NESC). Council previously imposed Condition 7.9, requiring that the certificate holder develop
22 and implement a program during operations to ensure structures that could become
23 inadvertently charged are grounded or bonded throughout the life of the facility. These
24 conditions would apply to the proposed 34.5 kV interconnection transmission line and would
25 minimize potential impacts from induced voltage and current.

26

27 **Conclusions of Law**

28 For the reasons discussed above, and subject to compliance with the existing conditions, the
29 Department recommends Council find that the facility, with proposed construction deadline
30 extensions, would comply with the Council's Siting Standards for Transmission Lines.

31 **III.Q. Other Applicable Regulatory Requirements Under Council Jurisdiction**

32

33 Under ORS 469.503(3) and under the Council's General Standard of Review (OAR 345-022-
34 0000), the Council must determine whether the components proposed in the amendment
35 request would comply with "all other Oregon statutes and administrative rules...," as applicable
36 to the issuance of an amended site certificate. This section addresses the applicable Oregon
37 statutes and administrative rules that are not otherwise addressed in Council standards,
38 including noise control regulations, regulations for removal or fill of material affecting waters of
39 the state, and regulations for appropriating ground water.

⁸² CGS RFA 1 ExAA 2018-02-09. p AA-5.

1 III.Q.1. Noise Control Regulations: OAR 340-035-0035

2 (1) *Standards and Regulations:*

3 ***

4 (b) *New Noise Sources:*

5 ***

6 (A) *New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies.*

7 ***

8 Findings of Fact

9 The Department of Environmental Quality (DEQ) noise control regulations at OAR 340-035-0035
10 have been adopted by Council as the compliance requirements for EFSC-jurisdiction energy
11 facilities. OAR 340-035-0035 provides the DEQ noise regulations for industry and commerce.
12 The DEQ noise rules set noise limits for new industrial or commercial noise sources based upon
13 whether those sources would be developed on a previously used or previously unused site.⁸³

14 The ~~proposed~~ Carty Solar Farm and its supporting facilities would be located on approximately
15 400 acres, within an approximately 1,5814,997-acre ~~proposed amended~~ site boundary.

16 Historically, the land has been used for rangeland and industrial use by Boardman Coal Plant
17 and Carty Generating Station. The amended site boundary, approved by Council in the Final
18 Order on AMD1, is in proximity to Interstate 84, a highly traveled highway. This location ~~would~~
19 ~~be is~~ considered a “previously used industrial or commercial site,” because under OAR 340-035-
20 0015(47) the property has been used by an industrial noise source within the last 20 years.
21 Therefore, OAR 340-035-0035(1)(b)(A) noise control regulations for new industrial or
22 commercial noise sources located on a previously used site apply to noise generated by the
23 ~~proposed~~ Carty Solar Farm.

24 Under the regulations, the ~~proposed~~ Carty Solar Farm must comply with the statistical noise
25 limits contained in “Table 8” under OAR 340-035-0035(1)(b)(A). Table 7, *Statistical Noise Limits*
26 ~~for Industrial and Commercial Noise Sources~~ below provides the information contained in
27 “Table 8.”

28
29
30
31
32
33
34
35
36
37
38

⁸³ 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.

Table 7: Statistical Noise Limits for Industrial and Commercial Noise Sources

Statistical Descriptor¹	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

1

2 *Potential Construction Noise*

3

4 OAR 340-035-0035(5) outlines exemptions to the DEQ noise rules including exemptions for
5 emergency equipment, warning devices not operating continuously for more than 5 minutes,
6 and sounds created in construction or maintenance of capital equipment. OAR 340-035-
7 0035(5)(g) specifically exempts noise that originates on construction sites. Therefore,
8 construction related noise is not required to be evaluated to demonstrate compliance with this
9 rule. These facts have not changed since RFA1 or as a result of the changes proposed in RFA3.

10

11 *Potential Operational Noise*

12

13 The primary noise generating components associated with the ~~proposed~~ Carty Solar Farm
14 include inverters and transformers. Inverters are employed to convert direct current generated
15 from the solar modules to alternating current power, so the power may be sent to the grid.
16 Transformers increase, or step up, the voltage to ensure the power is efficiently transmitted to
17 the grid, and this process creates noise emissions.

18

19 The certificate holder has relied on previous noise modeling conducted as part of RFA1. The
20 certificate holder conducted an acoustic modeling assessment using the Computer Aided Noise
21 Abatement (CadnaA) software program to make predictions of peak noise levels at noise-
22 sensitive properties within the analysis area for RFA1, which included the construction and
23 operation of the Carty Solar Farm.

24

25 The CadnaA software program utilizes sound propagation factors adopted from International
26 Organization for Standardization (ISO) 9613-2 *Acoustics—Sound Attenuation During
27 Propagation Outdoors*. Atmospheric absorption was estimated for conditions of 10 degrees
28 Celsius and 70 percent relative humidity (conditions that favor propagation) and computed in
29 accordance with ISO 9613-1. The model divides the ~~proposed~~ Carty Solar Farm into a list of
30 individual point, line, and area noise sources (including inverters, each with a maximum sound
31 power level estimated at 87 dBA and step-up transformers, each with a maximum sound power
32 level of 94 dBA) representing each piece of equipment that produces a significant amount of

1 noise. Using these sound power levels as a basis, the model calculates the sound pressure level
2 that would occur at each noise sensitive receptor from each source after losses from distance,
3 air absorption, blockages, and other factors are considered. The sum of all these individual
4 levels is the total level from the Carty Solar Farm at the modeling point.

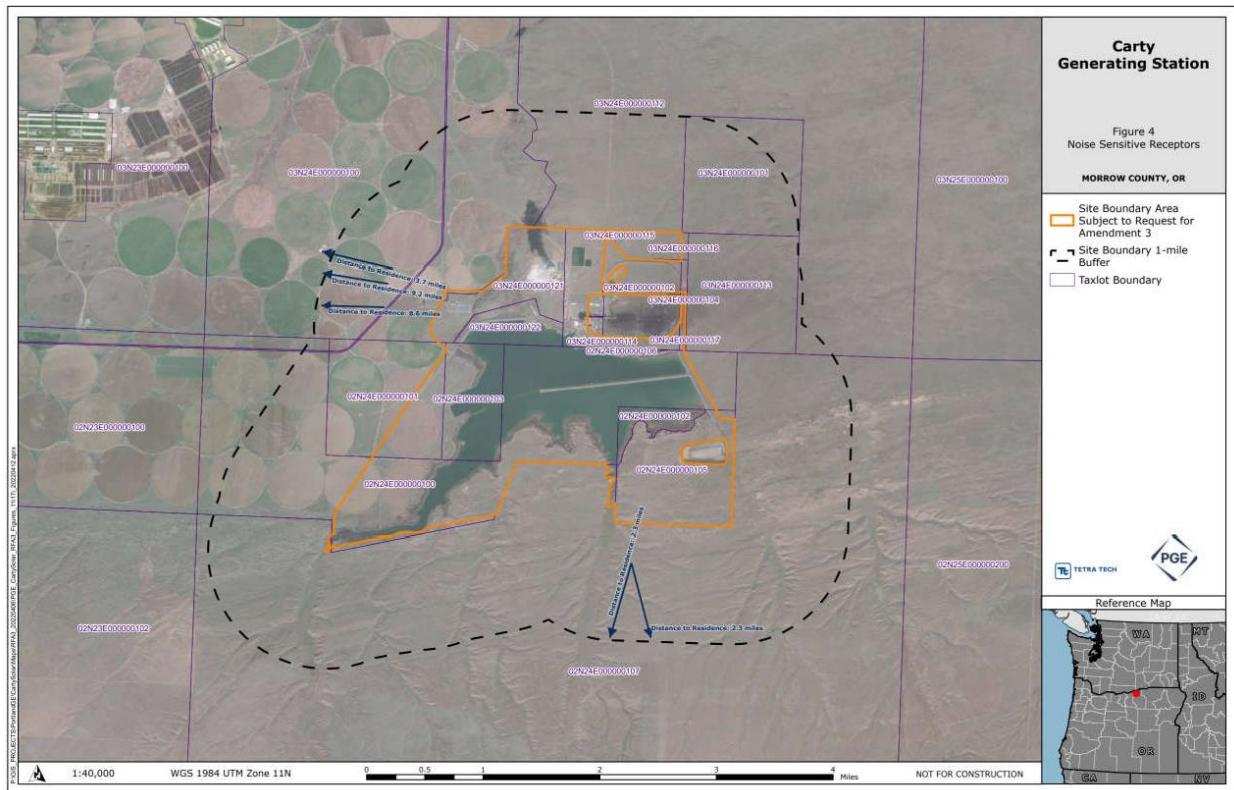
5
6 Extension of the construction start and completion deadlines for the Carty Solar Farm as
7 proposed in this RFA-3 will not change any of the predicted sound levels from the ~~proposed~~
8 Carty Solar Farm. The Department has reviewed the previous analysis submitted for RFA1, and
9 has verified that the CadnaA methods for noise modelling are still an accepted and valid means
10 for modeling noise impacts, and agrees that there is no change in facts that would alter
11 Council's previous reliance on this method for predicting noise levels associated with the
12 operation of the Carty Solar Farm.

13
14 RFA1 Figure X-1, Noise Contours illustrates the locations of the noise-sensitive properties in the
15 vicinity of the ~~proposed amended~~ site boundary. As represented and described in RFA1, there
16 were no identified noise sensitive properties within 1-mile of the ~~proposed amended~~ site
17 boundary, with the closest residential receptor (a noise-sensitive property) to the ~~proposed~~
18 Carty Solar Farm located more than two miles away.⁸⁴ The certificate holder represents that no
19 new residences or other sensitive noise receptors are located closer than the previously
20 analyzed locations in RFA 1. RFA3, Figure 4 (Noise Sensitive Receptors) shows current site
21 conditions and confirms no new noise sensitive receptors occur within 1 mile from the site
22 boundary of facility components associated with the Carty Solar Farm. This figure is presented
23 below as Figure 2 of this proposed order.

24

⁸⁴ CGS RFA 1 ExX 2018-02-12. p X-7.

Figure 2: Noise Sensitive Receptors within 1-mile of Site Boundary



Based on the acoustic noise modeling assessment, Council previously found that the ~~proposed~~ Carty Solar Farm would result in potential maximum overall A-weighted sound power level output of 44 dBA at 400 feet. The predicted sound levels from the ~~proposed~~ Carty Solar Farm at the closest residence (approximately 2.3 miles away) would be less than 30 dBA. There are no changes in methods or noise level standards since RFA1, and the noise analysis conducted for RFA1, specific to the Carty Solar Farm, has been previously determined by Council to satisfy the requirements of predicting operational noise impacts under this standard. In addition, the certificate holder has identified no new NSRs within the analysis area since RFA1 noise analysis. The Department has reviewed these representations and agrees with the certificate holder there are no new NSRs within the analysis area for RFA3, since the Final Order on AMD1. These findings were not changed as a result of RFA2. For all of these reasons, the Department recommends that Council finds that the proposed changes in RFA3 will not change Council's previous findings that operational noise generated from the ~~proposed~~ Carty Solar Farm would continue to comply with OAR 340-035-0035.

Conclusions of Law

Based on these findings, the Department recommends that Council to find that the Carty Solar Farm would continue to comply with the Noise Control Regulations in OAR 340-035-0035(1)(b)(A).

1 **III.Q.2. Removal-Fill**
2

3 The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and Department of State Lands
4 (DSL) regulations (OAR 141-085-0500 through 141-085-0785) require a removal-fill permit if 50
5 cubic yards or more of material is removed, filled, or altered within any “waters of the state.”⁸⁵
6 The Council, in consultation with DSL, must determine whether a removal-fill permit is needed
7 and if so, whether a removal-fill permit should be issued. The analysis area for wetlands and
8 other waters of the state is the area within the site boundary.

9

10 **Findings of Fact**

11 In the Final Order on AMD1, Council found that a removal-fill permit is not required because
12 construction and operation of the ~~proposed~~ Carty Solar Farm would not require removal of
13 materials from or placement of materials in any wetland or waterbody features. Information
14 regarding wetlands and other waters of the state provided in RFA1 Exhibit J, included a revised
15 wetland delineation report for the new site boundary areas (RFA1 Exhibit J, Attachment J-1)
16 and Oregon Department of State Lands’ (DSL) 2013 concurrence letter for the original Carty
17 Generating Station facility (RFA1 Exhibit J Attachment J-2). A removal-fill permit will not be
18 required because no impacts to waters of the state are expected as a result of the construction
19 or operation of the Carty Solar Farm.

20

21 In the Final Order on AMD1, Council found that the construction and operation of ~~proposed~~
22 Carty Solar Farm would not cause any impact to jurisdictional wetland or waterbodies,
23 therefore would not need a removal-fill permit. DSL reviewed the revised wetland delineation
24 report and provided the concurrence letter on September 18, 2018, in which DSL concurred
25 with the wetland delineation and classifications.⁸⁶ As noted in RFA3, the DSL concurrence letter
26 is valid for 5 years from date of issuance, which means the current concurrence is valid until
27 September 18, 2023, at which time the certificate holder is required to resubmit and obtain a
28 renewed concurrence from DSL.

29

30 Council previously imposed Condition 10.26 and 10.13 requiring that the certificate holder
31 provide final design maps to the Department demonstrating that ~~proposed~~ facility components
32 would be sited to avoid jurisdictional waters, and requiring that the certificate holder avoid
33 disturbance to delineated wetlands during construction, respectively.

34

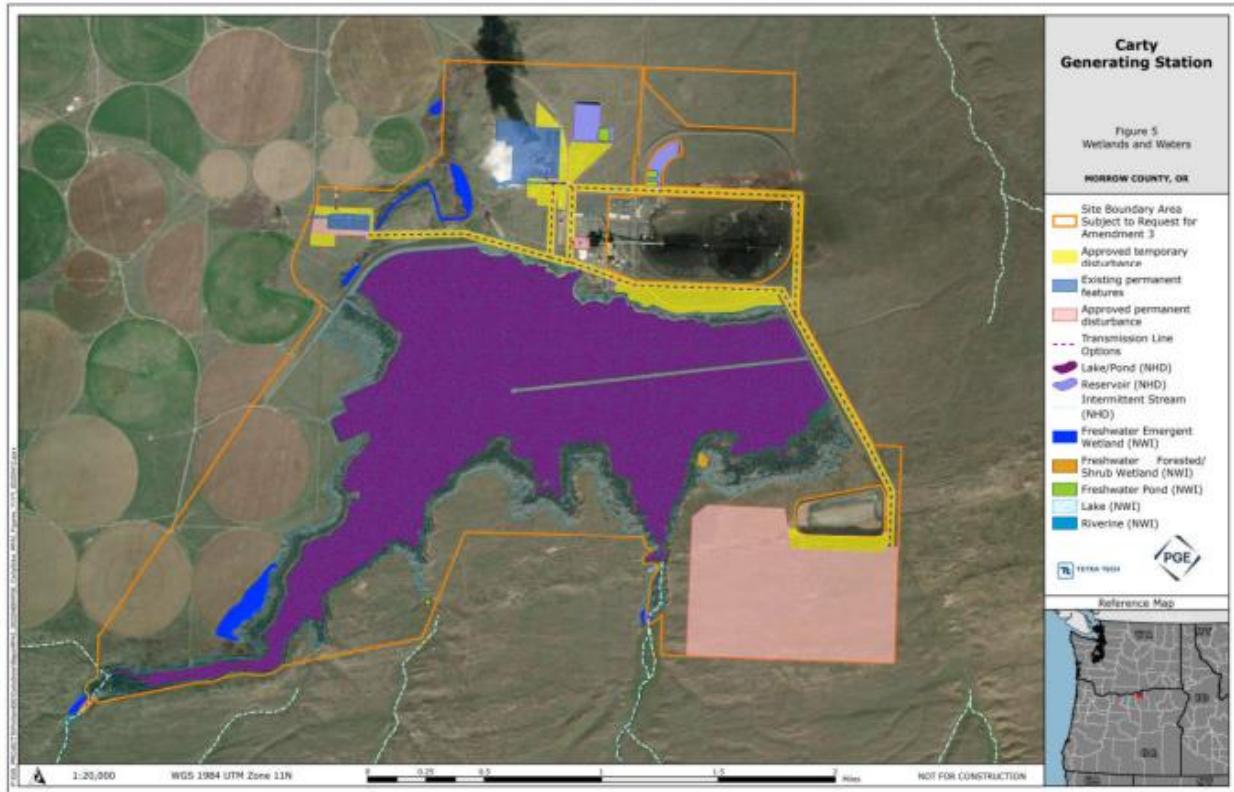
35 For RFA3, the certificate holder conducted an updated desktop review of the site comparing
36 current Google Earth imagery to data from the revised 2016 and 2018 Ecology and Environment
37 (E&E) Delineation Report. Based on this updated review, the certificate holder has represented
38 that site conditions appear consistent with the findings of the 2016 and 2018 E&E Delineation
39 Reports. RFA3, Figure 5 (Figure 3 below) shows current National Wetland Inventory (NWI 2021)

85 ORS 196.800(15) defines “Waters of this state.” The term includes wetlands and certain other waterbodies.

86 CGSAMD1. DSL Concurrence of WD 2018-0158. 2018-09-18.

1 and National Hydrography Dataset (NHD 2020) information within the area subject to RFA3.
2 The mapped features are consistent with the deviations from NWI described in the 2018 E&E
3 Delineation Report that received concurrence from DSL.

Figure 3: Wetlands and Waters of the State



4
5
6 The Council previously imposed Condition 10.26 and 10.27 requiring that the certificate holder
7 avoid any disturbance to delineated wetlands, and provide final design maps to ODOE
8 demonstrating that proposed facility components would be sited to avoid jurisdictional waters.
9 Condition 10.27 also requires that construction and operation of the approved facility avoid
10 impacts to any jurisdictional water identified in the pre-construction investigation in a manner
11 that would require a removal-fill permit and pre-construction surveys for areas to be disturbed
12 that lie outside previously-surveyed areas. There have been no changes in fact or law since
13 RFA1 that would alter Council's previous findings that a removal fill permit would not be
14 needed for the construction or operation of the Carty Solar Farm. A change in the start and
15 completion dates for construction of the Carty Solar Farm will not change these previous
16 findings or Council imposed conditions. For all of these reasons, the Department recommends
17 that Council continue to rely on their previous findings and site certificate conditions for RFA3.
18
19 **Conclusions of Law**

20 Based on the foregoing analysis, and in accordance with Oregon Removal-Fill Law (ORS 196.795
21 through 196.990) and regulations (OAR 141-085-0500 through 141-085-0785), the Department

1 recommends that Council continue to find that a removal-fill permit is not needed for the
2 ~~proposed~~ Carty Solar Farm.

3

4 **III.Q.3. Water Rights**

5

6 Under ORS Chapters 537 and 540 and OAR Chapter 690, the Oregon Water Resources
7 Department (OWRD) administers water rights for appropriation and use of the water resources
8 of the state. Under OAR 345-022-0000(1)(b), the Council must determine whether the facility,
9 with proposed construction deadline extension, would comply with the statutes and
10 administrative rules identified in the project order. The project order identifies OAR 690,
11 Divisions 310 and 380 (Water Resources Department permitting requirements) as the
12 administrative rules governing use of water resources and water rights as applicable to the
13 facility.

14

15 **Findings of Fact**

16

17 OAR 690 establishes the procedures and standards which shall be applied by the OWRD in the
18 evaluation of applications for a permit to appropriate surface water, ground water, to construct
19 a reservoir and store water, to use reserved water, or to use water stored in a reservoir. The
20 certificate holder is not requesting a groundwater permit, a surface water permit, or a water
21 rights transfer during the construction and operation of the ~~proposed~~ Carty Solar Farm.

22

23 Approximately 8 million gallons of water would be used to construct the Carty Solar Farm.
24 Primary uses of water would be for dust abatement, equipment and vehicle washing, washing
25 concrete trucks, and fire suppression. The construction deadline extensions requested in RFA3
26 would not impact the water uses or total water needed to construct the facility components.
27 Water used for construction would be obtained by a third-party contractor through a limited
28 water use license, obtained prior to construction. PGE's proposed source of water for the
29 limited water use is the Carty Reservoir under PGE's existing water right.⁸⁷ Site Certificate
30 Condition 2.14 applies to the water right and limited water use licenses and requires evidence
31 prior to construction of the Carty Solar Farm that a limited water use license from the Oregon
32 Water Resources Department has been obtained by the certificate holder's third-party
33 contractor, and requires semi-annual reports during construction that demonstrate allowable
34 water use has not been exceeded.

35

36 Water use during operation of the facility would be for solar panel washing and water use by
37 personnel. The certificate holder describes approximately 0.65 to 1.65 million gallons of water
38 would be needed per panel washing event. Panel wash water would be obtained from Carty

⁸⁷ Water necessary for construction would be obtained by a third-party contractor through a limited water use license to be applied for prior to starting construction. The proposed source of water for the limited water use license would be Carty Reservoir storage under PGE Certificate 86056. CGS RFA 1 ExO 2018-02-15. Appendix O-1 and CGSAMD3 Complete RFA3, Section 7.3 2022-06-08.

1 Reservoir or a municipal source.⁸⁸ Potable water used during operations would be obtained
2 from Boardman/Carty potable water system sourced from an existing onsite well, hauled in
3 from nearby water systems, or a private provider.

4
5 The Department recommends Council find that the certificate holder can obtain adequate
6 water for construction and operation of the Carty Solar Farm and does not need a new
7 groundwater permit, surface water permit, or water right transfer. If such a permit is required
8 at a later time, a site certificate amendment would be required to review and consider such a
9 permit application.

10
11 **Conclusions of Law**

12 Based on the foregoing recommended findings of fact and existing site certificate conditions,
13 the Department recommends Council find that the facility, with extended construction
14 deadlines, does not need a new groundwater permit, surface water permit, or water right
15 transfer.

⁸⁸ Water use for operations would come from an existing PGE held permit and/or certificated water right (Permit S-54925; 3,736 acre-feet per year from Carty Reservoir) and/or (Certificate 86057; 135.0 cubic feet per second from Columbia River or Carty Reservoir) which already cover all necessary Place of Use areas for operations. CGS RFA 1 ExO 2018-02-15. Appendix O-1.

1 **IV. PROPOSED CONCLUSIONS AND ORDER**

2

3 Based on the recommended findings of fact and conclusions included in this order, the

4 Department recommends Council make the following findings:

5

6 1. The changes proposed in Request for Amendment 3 of the Carty Generating Station

7 site certificate complies with the requirements of the Oregon Energy Facility Siting

8 Statutes, ORS 469.300 to 469.520.

9

10 2. The changes proposed in Request for Amendment 3 of the Carty Generating Station

11 site certificate complies with the standards adopted by the Council pursuant to ORS

12 469.501, in effect on the date the Council issues its Final Order.

13

14 3. The changes proposed in Request for Amendment 3 of the Carty Generating Station

15 site certificate complies with all other Oregon statutes and administrative rules in

16 effect on the date the Council issues its Final Order and applicable substantive

17 criteria in effect on the date the Request for Amendment was submitted.

18

19 Accordingly, the Department recommends Council find that the changes proposed in Request

20 for Amendment 3 of the Carty Generating Station site certificate complies with the General

21 Standard of Review OAR 345-022-0000 and OAR 345-027-0375. The Department recommends

22 that the Council find, based on a preponderance of the evidence on the record, that the site

23 certificate may be amended as requested.

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1 **Proposed Order**

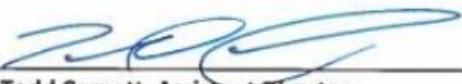
2

3 The Department recommends that the Council approve Amendment 3 of the Carty Generating

4 Station site certificate.

5 **Issued this 15th day of July 2022**

The OREGON DEPARTMENT OF ENERGY

By: 

Todd Cornett, Assistant Director
Oregon Department of Energy, Energy Facility Siting Division

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ENERGY FACILITY SITING COUNCIL

OF THE

STATE OF OREGON

**Second Third Amended
Site Certificate
for the
Carty Generating Station**

ISSUE DATES

Site Certificate July 2, 2012

First Amended Site Certificate December 14, 2018

Second Amended Site Certificate November 19, 2020

Third Amended Site Certificate **MONTH DATE, 2022**

[Note: Changes to conditions as presented in the Draft Proposed Order are presented in “red-line”; changes to conditions from the DPO to Proposed Order are presented in “red-line and hi-lite.]

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CARTY GENERATING STATION SITE CERTIFICATE

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Acronyms and Abbreviations

AC	alternating current
ACEC	Area of Critical Environmental Concern
ADA	Americans with Disabilities Act
AMD1	Final Order on Amendment No. 1
AMD2	Final Order on Amendment No. 2
<u>AMD3</u>	<u>Final Order on Amendment No. 3</u>
Btu	British Thermal Unit
BCP	Boardman Coal Plant
Carty	Carty Generating Station
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
Council	Oregon Energy Facility Siting Council
CTG	combustion turbine generator
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
DC	direct current
Department	Oregon Department of Energy
DEQ	Oregon Department of Environmental Quality
DOGAMI	Oregon Department of Geology and Mineral Industries
DPO	Draft Proposed Order
EPCRA	Emergency Planning and Community Right-to-Know Act
ESCP	Erosion and Sediment Control Plan
FAA	Federal Aviation Administration
FERC	Federal Energy Regulatory Commission
GTN	Gas Transmission Northwest LLC
HMA	Habitat Mitigation Area
HRSG	Heat Recovery Steam Generator
kV	kilovolt

MCZO	Morrow County Zoning Ordinance
MOU	Memorandum of Understanding
MSL	mean sea level
MW	megawatt
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OAR	Oregon Administrative Rule
ODFW	Oregon Department of Fish and Wildlife
ORS	Oregon Revised Statutes
OSSC	Oregon Structural Specialty Code
PGE	Portland General Electric Company
PV	photovoltaic
SHPO	Oregon State Historic Preservation Office
SPCC	Spill Prevention, Control, and Countermeasure
STG	Steam Turbine Generator
USFWS	United States Fish and Wildlife Service
Unit 1	450 megawatt natural gas-fueled, combined-cycle, combustion turbine generator
WGS	Washington Ground Squirrel
WPCF	Water Pollution Control Facilities

1.0 INTRODUCTION

The Oregon Energy Facility Siting Council (Council) issues this site certificate for the Carty Generating Station in the manner authorized under the Oregon Revised Statutes (ORS) Chapter 469. This site certificate is a binding agreement between the State of Oregon (State), acting through the Council, and Portland General Electric Company (certificate holder) authorizing the certificate holder to construct and operate the facility in Morrow and Gilliam counties, Oregon.

The findings of fact, reasoning, and conclusions of law underlying the terms and conditions of this site certificate are set forth in the following documents, which by this reference are incorporated herein: (a) the Council's *Final Order in the Matter of the Application for a Site Certificate for the Carty Generating Station* (Final Order on the Application) issued on June 29, 2012, (b) the Council's *Final Order in the Matter of the Site Certificate for the Carty Generating Station Request for Amendment No.1* (Final Order on Amendment No. 1 [AMD1]), and (c) the Council's *Final Order in the Matter of the Site Certificate for the Carty Generating Station Request for Amendment No.2* (Final Order on Amendment No. 2 [AMD2]), and (d) the Council's Final Order in the Matter of the Site Certificate for the Carty Generating Station Request for Amendment No. 3 (Final Order on Amendment No. 3 [AMD3]). In interpreting this site certificate, any ambiguity will be clarified by reference to the following, in order of priority: (1) this Site Certificate (issued November 19~~MONTH DAY~~, 2020~~2022~~, effective ~~December 9~~
MONTH DAY, ~~2020~~2022), (2) the Final Order on Amendment No. 23, (3) the record of the proceedings that led to the Final Order on Amendment No. 23, (4) the Final Order on Amendment No. 42, (5) the record of the proceedings that led to the Final Order on Amendment No. 42, (6) the Final Order on Amendment No. 1, (7) the record of the proceedings that led to the Final Order on Amendment No. 1, (8) the Final Order on the Application, and (97) the record of the proceedings that led to the Final Order on the Application.

This Site Certificate does not address, and is not binding with respect to, matters that were not addressed in the Council's Final Order on the Application, Final Order on Amendment No. 1, Final Order on Amendment No. 2, or Final Order on Amendment No. 32. Such matters include, but are not limited to: building code compliance; wage; hour; and other labor regulations; local government fees and charges; other design or operational issues that do not relate to siting the facility [ORS 469.401(4)]; and permits issued under statutes and rules for which the decision on compliance has been delegated by the federal government to a state agency other than the Council. ORS 469.503(3).

The obligation of the certificate holder to report information to the Department or the Council under the conditions listed in this site certificate is subject to the provisions of ORS 192.502 *et seq.* and ORS 469.560. To the extent permitted by law, the Department and the Council will not

publicly disclose information that may be exempt from public disclosure if the certificate holder has clearly labeled such information and stated the basis for the exemption at the time of submitting the information to the Department or the Council. If the Council or the Department receives a request for the disclosure of the information, the Council or the Department, as appropriate, will make a reasonable attempt to notify the certificate holder and will refer the matter to the Attorney General for a determination of whether the exemption is applicable, pursuant to ORS 192.450.

The Council recognizes that many specific tasks related to the design, construction, operation and retirement of the facility will be undertaken by the certificate holder's agents or contractors. Nevertheless, the certificate holder is responsible for ensuring compliance with all provisions of the site certificate. The definitions in ORS 469.300 and Oregon Administrative Rule (OAR) 345-001-0010 apply to terms used in this site certificate, except where otherwise stated, or where the context clearly indicates otherwise.

2.0 SITE CERTIFICATION

- 2.1 To the extent authorized by state law and subject to the conditions set forth herein, the State authorizes the certificate holder to construct, operate, and retire a facility that includes a natural gas-fueled electrical generating unit and a photovoltaic (PV) solar electrical generating unit, together with certain related or supporting facilities, at the site in Morrow County and Gilliam County, Oregon, as described in Section 3.0 of this site certificate.
[ORS 469.401(1)][AMD1; AMD2]
- 2.2 This site certificate is effective until 1) it is terminated under OAR 345-027-0110 or the rules in effect on the date that termination is sought; or 2) until the site certificate is revoked under ORS 469.440 and OAR 345-029-0100 or the statutes and rules in effect on the date that revocation is ordered.
[ORS 469.401(1)]
- 2.3 Both the State and the certificate holder shall abide by local ordinances, state law, and the rules of the Council in effect on the date this site certificate is executed. ORS 469.401(2). In addition, upon a clear showing of a significant threat to public health, safety, or the environment that requires application of later-adopted laws or rules, the Council may require compliance with such later-adopted laws or rules.
[ORS 469.401(2)]
- 2.4 For a permit, license, or other approval addressed in and governed by this site certificate, the certificate holder shall comply with applicable state and federal laws adopted in the future to the extent that such compliance is required under the respective state agency statutes and rules.
[ORS 469.401(2)]

2.5 Subject to the conditions herein, this site certificate binds the State and all counties, cities, and political subdivisions in Oregon as to the approval of the site and the construction, operation, and retirement of the facility as to matters that are addressed in and governed by this site certificate.
[ORS 469.401(3)]

2.6 Each affected state agency, county, city, and political subdivision in Oregon with authority to issue a permit, license, or other approval addressed in or governed by this site certificate shall, upon submission of the proper application and payment of the proper fees, but without hearings or other proceedings, issue such permit, license, or other approval subject only to conditions set forth in this site certificate.
[ORS 469.401(3)]

2.7 After issuance of this site certificate, each state agency or local government agency that issues a permit, license, or other approval for the facility shall continue to exercise enforcement authority over such permit, license, or other approval.
[ORS 469.401(3)]

2.8 After issuance of this site certificate, the Council shall have continuing authority over the site and may inspect, or direct the Oregon Department of Energy (Department) to inspect, or request another state agency or local government to inspect, the site at any time in order to ensure that the facility is being operated consistently with the terms and conditions of this site certificate.
[ORS 469.430]

2.9 The certificate holder shall design, construct, operate and retire the facility:

- Substantially as described in the site certificate;
- In compliance with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances in effect at the time the site certificate is issued; and
- In compliance with all applicable permit requirements of other state agencies.

[Final Order III.D.2] [Mandatory Condition OAR 345-~~027~~025-00200006(3)]

2.10 Before any transfer of ownership of any unit of the facility or ownership of the site certificate holder, the certificate holder shall inform the Department of the proposed new owners. The requirements of OAR 345-027-~~0350(1)~~0400 apply to any transfer of ownership that requires a transfer of the site certificate ~~(per OAR 345-027-0400)~~.
[Final Order IV.B.2.8] [Mandatory Condition OAR 345-025-0006(15)] [AMD1; AMD2]

2.11 Any matter of non-compliance under the site certificate shall be the responsibility of the certificate holder. Any notice of violation issued under the site certificate shall be issued to the certificate holder. Any civil penalties assessed under the site certificate shall be levied on the certificate holder.
[Final Order IV.B.2.5]

2.12 Within 72 hours after discovery of conditions or circumstances that may violate the terms or conditions of the site certificate, the certificate holder shall report the conditions or circumstances to the Department.
[Final Order IV.B.2.7]

2.13 The Council shall not change the conditions of this site certificate except as provided for in OAR Chapter 345, Division 27.
[Final Order VI.1] [Mandatory Condition OAR 345-025-0006(1)] [AMD2]

2.14 The certificate holder must:
Prior to construction of the Carty Solar Farm, 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.

2.15 During construction of the Carty Solar Farm, provide to the Department in semi-annual reports, pursuant to OAR 345-026-0080, documentation of the record of all water use, as required by the third-party's limited water use license, demonstrating that the allowable total and per minute water use (total gallons and gallons per minute) have not been exceeded.
[AMD1]

3.0 DESCRIPTION OF FACILITY

3.1 LOCATION AND SITE BOUNDARY

The Carty Generating Station is located in Morrow and Gilliam Counties, Oregon, southwest of the City of Boardman and adjacent to the Carty Reservoir. ~~This location is also adjacent to the existing Boardman Coal Plant (BCP). The BCP has a December 31, 2020 deadline to cease operations.~~

As defined by OAR 345-001-0010, the “site boundary” is the perimeter of the site of the energy facility, its related or supporting facilities, all temporary staging areas, and all corridors. The site boundary for the Carty Generating Station encompasses approximately 4,997 acres.

3.2 THE ENERGY FACILITY

The Carty Generating Station includes a natural gas-fueled combined-cycle unit and a solar photovoltaic (PV) electric power generating unit. The Carty Generating Station is capable of generating up to 500 megawatts (MW) of electrical power (up to 450 MW from the natural gas-fueled combined-cycle unit [Unit 1], and up to 50 MW from the solar PV generating unit).

Unit 1 of the Carty Generating Station includes one natural-gas-fueled generating unit consisting of one high efficiency combustion turbine generator (CTG), heat recovery steam generator (HRSG), and a steam turbine generator (STG). Within this unit, the natural gas CTG produces electricity, with the exhaust gases from the CTG supplying heat to the HRSG. Steam produced in the HRSG is used to power the STG to produce additional electricity. Duct burners fueled by natural gas in the HRSG allow for production of additional steam and additional electricity from the STG. Steam exhausted from the STG is condensed in a water-cooled condenser, with the resultant condensate returned to the HRSG to produce additional steam. Water used for cooling in the water-cooled condenser is routed to a cooling tower, where the water is cooled and then pumped back through the condenser. If required for starting the CTG or to maintain the plant in a ready-to-start condition, a natural gas-fueled auxiliary boiler will be used to supply steam when none is available from the HRSG. The CTG and STG are located

within a generating building to control noise during operation and to allow a controlled atmosphere for maintenance activities. A separate water treatment building houses the equipment necessary to purify raw water, producing de-mineralized water for use in the steam cycle of the unit.

Generator transformers step up the voltage produced by the gas-fueled unit to 500 kilovolts (kV). A 500-kV transmission line connects the generator transformers to a 500-kV switchyard, the Grassland Switchyard. From the switchyard, Portland General Electric Company (PGE) utilizes the existing 500-kV Boardman to Slatt transmission line to connect to the Slatt Substation.

The Carty Generating Station ~~will consume~~s about 75 million cubic feet of natural gas per day during operation of the gas-fired generating unit. Natural gas is supplied to the facility through a lateral pipeline operated by Gas Transmission Northwest LLC (GTN). This lateral pipeline is owned and operated by GTN and is outside the jurisdiction of the Council. This natural gas pipeline was permitted by the Federal Energy Regulatory Commission (FERC). ~~A control and administrative building provides space for plant controls and offices for plant personnel for all units.~~

In addition to Unit 1, the Carty Generating Station also includes a 50 MW ~~PV~~ solar ~~PV~~ power generating unit, the Carty Solar Farm, occupying a 315-acre site located south of the Carty Reservoir. The Carty Solar Farm was permitted through the First and Third Amended Site Certificate~~s~~, and consists of multiple solar modules mounted on racking systems, connected in series strings, to produce direct current (DC) electricity from sunlight. The DC electricity is then routed to inverters and step-up transformers to be converted to alternating current (AC) electricity and voltage increased to the appropriate collector circuit potential. Electrical power produced by the Carty Solar Farm would be collected and routed via a new 34.5 kV transmission line to one of three interconnection options located north of the Carty Reservoir. Five potential transmission line routes from the Carty Solar Farm to the three interconnection options are currently permitted under the First and Third Amended Site Certificate for Carty Generating Station. Each route would be of the same approximate design and would be approximately 2 to 3 miles long, depending on the route selected. If an interconnection to the Grassland Switchyard is selected, the switchyard would be enlarged to 15 acres, as approved in the original Site Certificate and the First Amended Site Certificate for Carty Generating Station.

The Carty Generating Station includes the following related or supporting facilities:

- Carty Reservoir and portions of the raw water intake system ~~(includes 400-gallon sodium hypochlorite tank, 1,100-gallon anti-scalant; and 400-gallon sodium hypochlorite tote)~~ and associated electrical connection
- Grassland Switchyard
- 500-kV transmission line from Unit 1 to the Grassland Switchyard
- 500-kV transmission line from Grassland Switchyard to the Slatt Substation
- 230-kV transmission line from the Carty Substation to the Dalreed substation

- 34.5-kV Grassland Switchyard backup station transmission line
- 34.5-kV construction substation to railroad crossing transmission line
- 34.5-kV Carty Solar Farm transmission line
- 7.2-kV Carty Generating Station backup transmission line
- 4.2-kV Grassland substation service line
- Interconnecting water pipelines
- Well (Boeing Well) / pump house and associated 12.5-kV power line
- Cooling tower
- Liquid storage facilities
- Sanitary sewer (sewer lagoons and septic system)
- Accessory buildings
- Utility and communication lines
- Access Roads
- Additional temporary construction areas
- Water Discharge Channel
- Construction Substation
- 300,000-gallon water storage tank, adjacent pumphouse, and associated water pipeline
- Evaporation Ponds
- Irrigation Pump Station and 34.5 kV transmission line
- Septic system
- Water pipeline connecting BCP's 300,000-gallon water tank
- Security guard station
- Office and warehouse building; and 35x40 work station¹
- Carty Substation and associated distribution lines

Two control and administrative buildings provides space for plant controls and offices for plant personnel for Unit 1 and the Carty Solar Farm. A description of major components, structures,

¹ Facility modification reported by certificate holder in 2021 Annual Report.

and systems of each related or supporting facility that is part of Carty Generating Station per the Site Certificate for Carty Generating Station is provided in the following subsections.

Carty Reservoir

Carty Reservoir is a wastewater and cooling pond that provides service water to the Carty Generating Station and receives cooling tower blow down and wastewater from the wastewater collection sump. The reservoir also stores water used to irrigate nearby agricultural fields. Because the area is arid, all the water for filling and maintaining the reservoir is pumped through pipes from the Columbia River, approximately 10 miles to the north. When full, at a surface elevation of 677 feet above mean sea level (MSL), the reservoir has a capacity of 38,000-acre feet, a surface area of approximately 1,450 acres (2.3 square miles), and a maximum depth of 77 feet. The average pool elevation for the reservoir since 1990 has been approximately 667 to 668 feet above MSL. At this elevation, the reservoir surface area is approximately 1,100 acres and contains approximately 26,000-acre feet of water. The reservoir is not used for recreation, and there is no public access to it.

Water leaves Carty Reservoir through withdrawals for use at the Carty Generating Station, through evaporation from the surface of the reservoir, withdrawals for irrigation, and through underground seepage from the reservoir. A buried toe drain at the West Dam captures seepage to pump back into the reservoir, and there is a concrete emergency spillway adjacent to the West Dam. There is an irrigation pump station located on the southwest arm shore of Carty Reservoir within an approximately 0.2 acre fenced area; the irrigation pump station is used to pump water out of Carty Reservoir for irrigation of nearby agricultural fields. There is a 2,600 foot-long underground 34.5 kV transmission line that powers the pump station from a PacifiCorp transmission line.

On-Site Transmission Lines

500 kV Unit 1 to Grassland Switchyard Transmission Line An approximate 1-mile long 500-kV transmission line, mounted on four steel lattice towers, connects the step-up transformers located at the gas-fueled generating unit to the Grassland Switchyard. These towers are between 100 and 150 feet tall and are spaced approximately between 800 feet and 1,700 feet apart.

4.2 kV Grassland Station Service Line

A 4.2 kV station service line extends approximately 1 mile from Carty Generating Station to the Grassland Switchyard. For most of its length, this line is mounted on wood poles. However, the line runs underground for approximately 750 feet prior to entering the Grassland Switchyard to avoid clearance conflicts with the 230 kV BCP to Dalreed transmission line. This line provides power to the Grassland Switchyard from Carty Generating Station.

7.2 kV Carty Generating Station Backup Power Line

A 7.2 kV above ground backup power line extends approximately 0.5 mile from BCP or the Carty substation once constructed to Carty Generating Station. This line runs underground approximately 0.10 mile north of BCP; the remainder of the line is mounted on wood poles. Once the Carty substation is constructed the line will be entirely above ground.

34.5 kV Grassland Backup Station Service Line

A 34.5 kV line (referred to as the Grassland backup station service line) provides backup power to Grassland Switchyard via an approximately 800-foot underground line extending west and then north from the transformer within Grassland Switchyard, connecting to the existing 34.5 kV BCP to Railroad Crossing at Tower Road Transmission Line described above.

34.5 Carty Solar Farm Transmission Line

A 34.5-kV transmission line from the Carty Solar Farm will route around the eastern end of Carty Reservoir and then follow one of five potential routes to the point of interconnection at the Grassland Switchyard, Unit 1, or the Boardman Plant.

Off-Site Transmission Lines

500 kV BCP to Slatt Transmission Line

To access the grid, certificate holder utilizes the 500-kV Boardman to Slatt transmission line, a 500-kV single circuit transmission line, to connect the Grassland Switchyard to the Slatt Substation. The transmission line is approximately 17 miles long from Grassland Switchyard to Slatt Substation.

230 kV BCP to Dalreed Transmission Line

The 230kV BCP to Dalreed transmission line connects the Dalreed substation to the power block at BCP or the Carty substation once built. It is used to provide power to Carty Generating Station via the 7.2 kV Carty Generating Station back up transmission line and provide power to the construction substation.

34.5 kV BCP to Railroad Crossing at Tower Road Transmission Line

The 34.5 kV BCP to Railroad Crossing at Tower Road Transmission Line provides power to the railroad crossing signal at Tower Road and power to the seepage pumps for Carty Reservoir. The power for this line is provided via the construction substation.

Grassland Switchyard

A 500-kV, alternating current, open-air switchyard is located west of the Carty Generating Station. The switchyard consists of an 8.5-acre leveled and graveled area surrounded by a security fence. The switchyard was approved up to approximately 15 acres in size in the original Site Certificate, and may be expanded to that size depending on the interconnection needs of the Carty Solar Farm. The switchyard includes 500-kV circuit breakers and disconnect switches to allow for clearing faults on the connected transmission lines and for maintenance of the circuit breakers and transmission lines. Steel take-off towers terminate 500-kV overhead transmission lines that connect the switchyard with the plant generator step-up transformers and outgoing transmission lines. An additional small building provides a controlled environment for the protective relaying and communication equipment.

Carty Substation

Carty Substation is a 7.2 kV open box structure substation, with control house for relay, SCADA, communications, and DC system, dead-end structure for the existing 230 kV Boardman to Dalreed transmission line, and surrounding fence that would be located southeast of the construction substation. It will provide backup power to Carty Generating Station via an above ground distribution line that connects to the 7.2 kV Carty Generating Station backup transmission line, and power to the construction substation via an underground distribution line.

Construction Substation

The Construction Substation is located within a 40-foot by 80-foot fenced area that contains three wooden H-frame structures, transformers and associated electrical equipment, including a 6-foot by 8-foot control house. It was built originally to provide construction power during construction of BCP and continues to be used as part of the onsite electrical distribution system. This facility is located approximately 0.3 miles south of CGS. The construction substation is powered by an underground distribution line from Carty substation.

Water Sources and Discharges

There are four categories of water sources and discharges that serve Carty Generating Station: raw water/fire water, wastewater, potable water, and sanitary sewer.

Raw Water/Fire Water

Raw water from the Carty Reservoir is used for service water and fire water. It is withdrawn via a single intake structure located inside the Raw Water Intake Building, from which it is taken in through a channel outfitted with a traveling screen and enters a wet well. Power is provided to the intake building via an underground distribution line from Carty Generating Station to the intake building.

Wastewater

Carty Generating Station process waste and plant drainage waste flows are discharged into holding ponds, which can provide 7 days of holding capacity (if needed for discharge line maintenance or some other event preventing direct discharge). From the holding ponds, wastewater is discharged via an 8-inch-diameter pipeline into Water Discharge Channel prior to entering Carty Reservoir or to evaporation ponds located northeast of Carty Generating Station (formerly BCP evaporation ponds).

Potable Water

Potable water for drinking fountains, showers (emergency and lavatory), sinks, and flushing of lavatory fixtures comes from the Boeing Well. The Boeing Well is a groundwater extraction well located just south of Carty Generating Station. The well is 600 feet deep with a 30 horsepower pump hung at around 440 feet below ground surface. The well fills a holding tank within Carty Generating Station prior to direct distribution to the plant services building. The Boeing Well pump drive motor is powered from a 150-kilovolt-ampere 12470-480/277 V distribution transformer. This transformer is connected via a 12.5 kV overhead underground distribution line to the construction substation. The construction substation, in turn, derives power from a 12.5kV originating at the 1X33 transformer at BCP.

Carty Generating Station also includes backup potable/firewater storage in a 300,000 gallon, welded-steel water storage tank with adjacent pump house. This facility is connected to Boeing well via a 4-inch-diameter intake pipeline and to Carty Generating Station via a water pipeline.

Sanitary Sewer

Sanitary sewer flows at Carty Generating Station are solely from plant lavatories, sinks, and bathroom showers used by plant personnel. These flows are directly discharged to the sewage lagoons via a sewer lift station, or an onsite septic system. There are three existing sewage lagoons: the South Lagoon and Middle Lagoon (both lined), and the North Lagoon (unlined).

The South and Middle Lagoons can also be made common by a gated pipe through the separating dike. The only connection between the lined lagoons and the unlined lagoon is overflow through a chlorinating weir at the northeast corner of the Middle Lagoon. The clay liners in the South and Middle Lagoons were replaced with new synthetic liners in the fall of 2014. The sewage lagoons are permitted under Water Pollution Control Facilities (WPCF) permit number 100189.

The septic system is sized per state and county standards and the Umatilla County Public Health Department requirements and is in an area deemed acceptable for a standard, non-residential septic system. Because the design flow of the system is less than 2,501 gallons per day, the facility is not governed by a permit from Oregon Department of Environmental Quality (DEQ).

Cooling Tower

The cooling tower at the Carty Generating Station exhausts excess heat from the power generation process. The cooling tower consists of a structure to contain a water-cooling medium, with exhaust fans located within an open-top, bell-shaped housing which pulls air under and through the water-cooling medium. The cooling tower is approximately 50 feet in height. The mechanical-draft wet cooling tower serves the combined cycle unit of the Carty facility.

Liquid Storage Facilities

Liquid fuel is not stored on the Carty facility site. Anhydrous ammonia, a chemical used for emissions control, is stored in steel horizontal sealed storage tanks with secondary containment. Other liquid chemicals such as sulfuric acid (used for pH control) and sodium hypochlorite and sodium bromide (used as biocides in cooling tower water) are stored in tanks or totes with secondary containment. Small-quantity chemicals such as cleaners and lubricants are stored within on-site accessory buildings.

Accessory Buildings

Accessory buildings at the Carty Generating Station site house boiler feed pumps, chemical feed equipment, water treatment equipment, and other equipment requiring protection from weather or noise containment. Accessory buildings common to the gas-fired generating unit and solar unit include warehouse and office space, administration areas, and security guard station.

Communication Lines

Communication lines supporting the Carty Generating Station originate from a Century Link vault near the northwest corner of the BCP lined evaporation ponds, run down the dirt access road, along Tower Road, and then into the Carty facility.

Access Roads

A paved loop road, approximately 24 feet wide and 2,100 feet long, connects with Tower Road at both ends of the loop to serve normal truck and operator vehicle traffic for Unit 1. This loop road has spur roads leading to individual buildings and areas that require access. An existing

paved and graveled road provides access to the permitted location of the Carty Solar Farm. The Carty Solar Farm would contain unpaved on-site access roads.

Additional Temporary Construction Areas

Additional areas in the vicinity of the ~~proposed~~-Carty Generating Station are provided for construction offices, construction parking, construction staging, and temporary storage of soil displaced during the construction process. Similar temporary construction areas are provided in the vicinity of the Grassland Switchyard.

4.0 GENERAL ADMINISTRATIVE CONDITIONS

4.1 The certificate holder shall:

- i. Begin construction of 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.
[Final Order III.D.3; Mandatory Condition OAR 345-027-0020(4)]
- ii. Begin construction of the Carty Solar Farm ~~within three years after the effective date of the amended site certificate, or by~~ February 4, ~~2022~~2025. Under OAR 345-015-0085(8), the site certificate is effective upon execution by the Council Chair and the certificate holder.
[AMD1: AMD3]
- iii. Begin construction of the facility components authorized by the Final Order on Request for Amendment 2 within three years after the effective date of the amended site certificate, or [December 9, 2020]. Under OAR 345-015-0085(8), the site certificate is effective upon execution by the Council Chair and the certificate holder.
[AMD2]

4.2. The certificate holder must:

- i. Complete construction of Unit 1 of the facility within three years of beginning construction of Unit 1. Construction is complete when: 1) the facility 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 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)] [AMD1]
- ii. Complete construction of the Carty Solar Farm ~~within six years of the effective date of the amended site certificate, or by~~ February 4, ~~2025~~2028. The certificate holder shall promptly notify the Department of the date of completion of construction of the Carty Solar Farm and its supporting facilities.

| [AMD1; AMD3]

iii. Complete construction of the facility components authorized by the Final Order on Request for Amendment 2 within six years of the effective date of the amended site certificate, or [December 9, 2020]. The certificate holder shall promptly notify the Department of the date of completion of construction of these supporting facilities. [AMD2]

4.3. [DELETED]
[AMD1]

4.4. The certificate holder shall submit a legal description of the site to the Department of Energy within 90 days after beginning operation of the facility. The legal description required by this rule means a description of metes and bounds or a description of the site by reference to a map and geographic data that clearly and specifically identifies the outer boundaries that contain all parts of the facility.
[Final Order III.D.1] [Mandatory Condition OAR 345-025-0006(2)] [AMD1]

4.5. The certificate holder shall obtain all necessary federal, state, and local permits or approvals required for construction, operation, and retirement of the facility or ensure that its contractors obtain the necessary federal, state, and local permits or approvals.
[Final Order IV.B.2.4]

4.6. The certificate holder must obtain, as required by ORS 469.401(3), all local permits, to include a Conditional Use Permit for the portion of the Carty Generating Station facility located on land zoned Exclusive Farm Use and a Zoning Permit for the entire facility located within Morrow County.
[Final Order IV.E.4.6] [AMD2]

5.0 PRE-CONSTRUCTION REQUIREMENTS

In addition to pre-construction requirements contained elsewhere in this site certificate, the certificate holder must meet the following requirements:

5.1 Before beginning construction, the certificate holder must notify the Department of the identity and qualifications of the major design, engineering, and construction contractor(s) for the facility. The certificate holder must select contractors that have substantial experience in the design, engineering, and construction of similar facilities. The certificate holder must report to the Department any change of major contractors.
[Final Order IV.B.2.1] [AMD1]

5.2 The certificate holder must contractually require all construction contractors and subcontractors involved in the construction of the facility to comply with all applicable laws and regulations and with the terms and conditions of the site certificate. Such contractual provisions do not relieve the certificate holder of responsibility under the site certificate.
[Final Order IV.B.2.3] [AMD1]

5.3 Before beginning construction of Unit 1, the certificate holder shall submit a final parking lot plan to Morrow County for approval as part of the certificate holder's building permit application for the energy facility. This parking lot plan shall comply with Section 4.040 and 4.060 of the Morrow County Zoning Ordinance (MCZO) and with Americans with Disabilities Act (ADA) requirements. This plan shall provide a minimum of 22 parking spaces and one ADA-accessible space, or the minimum number of parking spaces required by MCZO Section 4.040 based on the number of employees on the largest shift, whichever is greater. The certificate holder shall construct on-site parking in conformance with the approved parking lot plan.
[Final Order IV.E.4.2] [MCZO Section 4.040-4.060] [AMD2]

5.4 Before beginning construction of Unit 1 and Carty Solar Farm, the certificate holder must:

- i. Complete an investigation of subsurface soil and geologic conditions to identify geological or geotechnical hazards per Condition 5.4.a and obtain Department approval of the investigation report per Condition 5.4.b.
 - a. The investigation must include at least the following activities:
 1. Drilling of six to eight exploratory borings up to a depth of 75 feet under proposed critical structure locations, including the gas turbine units, cooling tower, transmission structures, and switchyard. Standard penetration tests should be conducted at 2.5-foot and 5-foot intervals. Drilling of exploratory borings along transmission line corridor is not necessary if such information is available from the construction of the existing transmission line.
 2. Digging of test pits to assess the extent and thickness of any loose, surficial soil layers at the site. Key focus areas should include planned locations of critical structures, roadways, and landscaped areas where irrigation would occur.
 3. Performing laboratory testing to evaluate the engineering properties of soils, including natural water contents on all samples collected, mechanical and hydrometer gradations, Atterberg limits, and collapsibility and consolidation tests on selected samples.
 - b. The certificate holder must prepare a geotechnical report with final facility design recommendations based on the investigation conducted per the requirements of Condition 5.4.a. The geotechnical report must be submitted to the Oregon Department of Geology & Mineral Industries (DOGAMI) and the Department. The certificate holder may not commence construction of the facility prior to Department approval of this report.
[Final Order IV.C.2.1]
 - ii. Complete an investigation of subsurface soil and geologic conditions, based upon a protocol reviewed and approved by the Department in consultation with DOGAMI, to identify geological or geotechnical hazards and obtain Department approval of the investigation report per Condition 5.4.i.b.
 - a. The investigation must include at least the following activities:
 1. Drilling of additional borings at scattered locations across the Carty Solar Farm and associated transmission lines and access roads, up to a depth of 50 feet.

[AMD1] [AMD2]

5.5 Prior to beginning construction of Unit 1, facility components approved in Final Order on RFA1, or facility components approved in Final Order on RFA2, the certificate holder must consult with the Morrow County Weed Control Supervisor and obtain approval of a Revegetation and Noxious Weed Control Plan. The final Revegetation and Noxious Weed Control Plan must be submitted to the Department of Energy, based upon the draft amended plan provided as Attachment D of the Final Order on Amendment 2, for approval prior to the start of construction.

During construction and operation of the facility, the certificate holder must implement a revegetation and weed control plan. The certificate holder must comply with the applicable provisions of the Morrow County Weed Control Ordinances, as determined by the Morrow County Weed Control Supervisor and the Gilliam County Weed Control Officer.

[Final Order IV.D.2.6] [AMD1] [AMD2]

5.6 The certificate holder shall:

- i. Before beginning construction of Unit 1, ~~the certificate holder must~~ submit a Notice of Proposed Construction or Alteration to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation identifying the final location of the facility exhaust stack. The certificate holder must promptly notify the Department of the responses from the FAA and the Oregon Department of Aviation.
- ii. Before beginning construction of the Carty Solar Farm,
 - a. First, submit to and receive responses from the Oregon Department of Aviation (Aviation) of 7460-1 Notice of Proposed Construction or Alteration Forms for all aboveground facility components. The certificate holder shall provide copies of Aviation responses, which must be consistent with ORS 836.535(2), to the Department, and shall respond to Aviation marking and lighting recommendations, if applicable.
 - b. Second, once Aviation responses on the 7460-1 forms are received, submit to and receive determinations from the Federal Aviation Administration (FAA) for all aboveground facility components. The certificate holder shall provide copies of FAA determinations to the Department.
 - c. Within 5-days of construction, certificate holder shall submit 7460-2 forms to FAA and Aviation and shall report both timing of submission and any results to the Department.
 - d. The height of any new or replaced supporting facilities or structures should not penetrate FAA Part 77 Imaginary Surfaces, as determined by the FAA and ODAV.

[Final Order V.D.2.5: AMD3]

5.7 Except as necessary for the initial survey or as otherwise allowed for wind energy facilities, transmission lines or pipelines under OAR 345-027-0020, the certificate holder shall not begin construction, as defined in OAR 345-001-0010, or create a clearing on any part of the site until the certificate holder has construction rights on all parts of the site. For the purpose of this rule, “construction rights” means the legal right to engage in construction activities.

[Final Order III.D.6] [Mandatory Condition OAR 345-027-0020(5)]

- 5.8 Before beginning construction, the certificate holder must notify the Department in advance of any work on the site that does not meet the definition of "construction" in ORS 469.300 (excluding surveying, exploration, or other activities to define or characterize the site) and must provide to the Department a description of the work and evidence that its value is less than \$250,000.
[Final Order IV.B.2.6]
- 5.9 The certificate holder shall develop and implement a Spill Prevention, Control and Countermeasure (SPCC) Plan in accordance with 40 Code of Federal Regulations (CFR) 112. A copy of this plan shall be provided to the Department prior to the commencement of operation of Carty Generating Station, and shall be updated according to the timelines provided in 40 CFR 112.
[Final Order IV.G.2.1] [AMD1] [AMD2]
- 5.10 Before beginning construction of the Carty Solar Farm, the certificate holder shall record in the deed records of Morrow County a document binding the certificate holder and its successors in interest, prohibiting them from pursuing a claim for relief or cause of action alleging injury from farming or forest practices as defined in ORS 30.930(2) and (4).

6.0 DESIGN, CONSTRUCTION AND OPERATIONS

- 6.1 During construction, the certificate holder must have a full-time, on-site manager who is qualified in environmental compliance to ensure compliance with all site certificate conditions. The certificate holder must notify the Department of the name, telephone number, and e-mail address of this person prior to the start of construction and immediately upon any change in the contact information.
[Final Order IV.B.2.2]
- 6.2 The certificate holder shall provide portable toilets for on-site sewage handling during construction and shall ensure that they are pumped and cleaned regularly by a licensed contractor who is qualified to pump and clean portable toilet facilities.
[Final Order IV.N.2.3]
- 6.3 The certificate holder shall implement a waste management plan during construction that includes but is not limited to the following measures:
 - a. Recycling steel and other metal scrap.
 - b. Recycling wood waste.
 - c. Recycling packaging wastes such as paper and cardboard.
 - d. Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler.
 - e. Segregating all hazardous wastes such as used oil, oily rags and oil-absorbent materials, mercury-containing lights and lead-acid and nickel-cadmium batteries for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous wastes.
 - f. Confining concrete delivery truck rinse-out to a designated wash-out area and burying other concrete waste as part of backfilling.
[Final Order IV.N.2.1]

- 6.4 In advance of, and during, preparation of detailed design drawings and specifications for the 500-kV transmission line, the certificate holder shall consult with the Utility Safety and Reliability Section of the Oregon Public Utility Commission to ensure that the designs and specifications are consistent with applicable codes and standards. [Final Order V.D.2.3]
- 6.5 The certificate holder must design, construct and operate the transmission lines 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] [Mandatory Condition OAR 345-027-0023(4)] [AMD2]
- 6.6 The certificate holder must design and construct the facility in accordance with requirements of the current Oregon Structural Specialty Code and the International Building Code in effect at the time of the start of construction for each unit. [Final Order IV.C.2.4] [AMD1]
- 6.7 The certificate holder must design, engineer and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule “seismic hazard” includes ground shaking, ground failure, landslide, liquefaction, triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading), cyclic softening of clays and silts, fault rupture, directivity effects and soil-structure interaction. For coastal sites, this also includes tsunami hazards and seismically-induced coastal subsidence. [Final Order IV.C.2.5] [Mandatory Condition OAR 345-025-0006(12)][AMD2]
- 6.8 The certificate holder must design, engineer and construct the facility to avoid dangers to human safety presented by non-seismic hazards. As used in this condition, “non-seismic hazards” include settlement, landslides, flooding and erosion. [Final Order IV.C.2.6]
- 6.9 The certificate holder shall design and construct the facility using the minimum land area necessary for safe construction and operation. The certificate holder shall locate access roads and temporary construction laydown and staging areas to minimize disturbance of farming practices. [Final Order IV.E.4.1] [MCZO Section 3.010.D]
- 6.10 The certificate holder must notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate or requests for amendment. After the Department receives the notice, the Council may require the certificate holder to consult with the DOGAMI and the Building Codes Division to propose and implement corrective or mitigation actions. [Final Order IV.C.2.2] [Mandatory Condition OAR 345-025-0006(13)] [AMD1] [AMD2]
- 6.11 The certificate holder must notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. After the

Department receives notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions.

[Final Order IV.C.2.3] [Mandatory Condition OAR 345-025-0006(14)][AMD2]

- 6.12. During construction of the facility, the certificate holder shall ensure that contractors move equipment out of the construction area when it is no longer expected to be used. To the extent practical, contractors shall lower equipment with long arms, such as cranes, bucket trucks, and backhoes when not in use, in order to minimize visibility.
[Final Order IV.J.2.1]
- 6.13. To reduce the visual impact of the facility, the certificate holder shall paint the buildings and structures in low-reflectivity neutral colors to blend with the surrounding landscape.
[Final Order IV.J.2.2]
- 6.14. The certificate holder shall not use exterior nighttime lighting except:
 - a. The minimum exhaust stack lighting required or recommended by the Federal Aviation Administration.
 - b. Safety and security lighting at the Carty Generating Station, provided that such lighting is shielded or downward-directed to reduce offsite glare.
 - c. Minimum lighting necessary for repairs or emergencies.
 - d. As required during construction.
[Final Order IV.J.2.3] [AMD1]
- 6.17. During construction:
 - i. The certificate holder shall implement measures to reduce traffic impacts, as follows:
 - a. The certificate holder shall reduce peak hour volumes during construction by staggering shift start times or implementing other measures that would significantly reduce the total number of construction worker vehicle trips through the westbound I-84/Tower Road ramp terminal; or
 - b. The certificate holder shall install temporary traffic controls during peak construction to prioritize westbound left-turning vehicles at the westbound Tower Road ramp terminal during the weekday a.m. peak hour.
 - ii. For construction of the Carty Solar Farm, the certificate holder shall:
 - a. Implement a final Construction Traffic Management Plan, as approved by the Department per Condition 6.26.
 - b. Include the requirements of the Construction Traffic Management Plan in contract specifications for construction contractors, as applicable.
 - c. Maintain a monthly log, to be submitted monthly to the Department for review and confirmation of compliance with the components of the Construction Traffic Management Plan.
 - d. The Department, in consultation with the Morrow County Public Works Department, may require implementation of additional traffic management measures including a Traffic Impact Assessment per MCZO Section 3.010(N)(1) if any requirement of the Construction Traffic Management Plan is determined not adequately implemented, or if additional measures are deemed necessary based on actual passenger car

equivalent trips per day during facility construction. Within 30-days of submittal of the monthly compliance report required under sub(c), the certificate holder shall obtain written confirmation from the Department on any additional construction traffic management measures required to be implemented.

[AMD1] [AMD2]

6.18 Unless legally permissible, the certificate holder shall ensure that no equipment or machinery associated with the construction is parked or stored on any public road within Morrow or Gilliam Counties. The certificate holder may temporarily park equipment off the road but within County rights-of-way with the approval of the County Roadmaster.

[Final Order IV.M.2.10] [AMD1] [AMD2]

6.19 The certificate holder shall cooperate with the Morrow County Public Works Department and the Gilliam County Road Department to ensure that any unusual damage or wear to county roads that is caused by construction of the facility is repaired by the certificate holder. Upon completion of construction, the certificate holder shall restore public roads to pre-construction condition or better to the satisfaction of applicable county departments.

[Final Order IV.M.2.11] [AMD1] [AMD2]

6.20 [Deleted]
[Final Order IV.M.2.12] [AMD1]

6.21 Oversize and overweight deliveries shall be made by rail and barge when feasible, to limit impacts to the I-84/Tower Road interchange.
[Final Order IV.M.2.13]

6.22 The certificate holder shall construct all facility components in compliance with the following setback requirements. The transmission lines connecting the Carty Generating Station and the Grassland Switchyard are exempt from this condition.

- a. For portions of the facility located in the Morrow County General Industrial Zoning District:
 - i. The minimum setback between a structure and the right-of-way of an arterial street shall be 50 feet. The minimum setback of a structure from the right-of-way of a collector shall be 30 feet, and from all lower class streets the minimum setback shall be 20 feet.
 - ii. Any sewage disposal installations such as outhouses, septic tank and drainfield systems shall be set back from the high-water line or mark along all streams and lakes a minimum of 100 feet, measured at right angles to the high-water line or mark. All structures, buildings, or similar permanent fixtures shall be set back from the high-water line or mark along all streams or lakes a minimum of 100 feet measured at right angles to the high-water line or mark.
- b. For portions of the facility located in the Morrow County Exclusive Farm Use Zoning District:
 - a. The front yard setback from the property line shall be a minimum of 100 feet if the property line is adjacent to an intensive agricultural use; otherwise, front yards shall be 20 feet for property fronting on a local minor collector or marginal access street right-of-way, 30 feet from a property line fronting on a major collector right-of-way, and 80 feet from an arterial right-of-way.

- ii. Each side yard shall be a minimum of 20 feet except that for parcels or lots with side yards adjacent to an intensive agricultural use the adjacent side yard shall be a minimum of 100 feet.
- iii. Rear yards shall be a minimum of 25 feet, except for parcels or lots with rear yards adjacent to an intensive agricultural use, where rear yards shall be a minimum of 100 feet.
- iv. Any sewage disposal installations such as outhouses, septic tank and drainfield systems shall be set back from the high-water line or mark along all streams and lakes a minimum of 100 feet, measured at right angles to the high-water line or mark. All structures, buildings, or similar permanent fixtures shall be set back from the high-water line or mark along all streams or lakes a minimum of 100 feet measured at right angles to the high-water line or mark.

[Final Order IV.E.4.3] [MCZO Section 3.010(H)] [AMD1]

6.23 The certificate holder must limit signage to directional signs necessary for deliveries and general site circulation. No sign may be placed so as to interfere with visibility or effectiveness of any permanent traffic control device. No sign may be placed so as to impede the sight distance triangle at any access point or intersection as specified in Section 4.020 of the Morrow County Zoning Code. No sign shall cause glare, distraction or other driving hazards within a street or road right-of-way.
[Final Order IV.E.4.5] [MCZO Sections 4.020 and 4.070]

6.24 The certificate holder shall comply with Section 5, Public Responsibilities, of the Morrow County Solid Waste Management Ordinance. Any hauling of solid waste from the Carty Generating Station facility during construction, operation, or retirement shall be performed by a franchised solid waste hauler or otherwise comply with the Morrow County Solid Waste Management Ordinance.
[Final Order IV.E.4.7] [Morrow County Waste Management Ordinance Section 5.000]
[AMD2]

6.25 Recycling by the certificate holder and certificate holder's contractors during construction, operation, and retirement of the Carty Generating Station facility shall be done in accordance with Oregon Department of Environmental Quality regulations and shall be reported as part of the Morrow County watershed.
[Final Order IV.E.4.7] [AMD2]

6.26 The certificate holder is authorized to construct approximately 3 miles of 34.5 kV transmission line anywhere within the approved corridors, subject to the conditions of the site certificate. The approved corridors are approximately 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 to the site certificate of the Second Amended Site Certificate for Carty Generating Station.
[Site Specific Condition OAR 345-025-0010(5); AMD1] [AMD2]

6.27 Prior to beginning construction of the Carty Solar Farm, the certificate holder shall:

- a. Confirm whether, based on anticipated construction activities, peak construction traffic is anticipated to exceed 400 passenger car equivalent trips per day. If more than 400 passenger car equivalent trips per day is anticipated, the certificate holder shall prepare and submit to the Department and Morrow

County Planning Department a Traffic Impact Assessment per MCZO Section 3.010(N) Transportation Impacts for review and approval. If a TIA is required, the certificate holder shall submit documentation to the Department in accordance with OAR 345-027-0057.

- b. Prepare and submit to the Department a Construction Traffic Management Plan for review and approval. The certificate holder shall demonstrate that the Construction Traffic Management Plan, at a minimum, includes:
 1. Traffic management measures or other recommendations to minimize traffic impacts on Tower Road, as applicable, based upon consultation with Morrow County Public Works Department and Morrow County Sheriff's Office.
 2. Staggering shift start times or other measures that would significantly reduce the total number of construction worker vehicle trips through the westbound I-84/Tower Road ramp terminal; or
 3. Installation of temporary traffic controls during peak construction to prioritize westbound left-turning vehicles at the westbound Tower Road ramp terminal during the weekday a.m. peak hour.

[AMD1]

6.28 Prior to construction of the Carty Solar Farm, 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).
[AMD1] [AMD2]

7.0 PUBLIC HEALTH AND SAFETY

7.1 The certificate holder shall take the following steps to reduce or manage human exposure to electromagnetic fields:

- a. Constructing all aboveground transmission lines at least 200 feet from any residence or other occupied structure, measured from the centerline of the transmission line.
- b. For any transmission lines constructed after June 29, 2012; providing to landowners a map of underground and overhead transmission lines on their property and advising landowners of possible health risks from electric and magnetic fields.
- c. Designing and maintaining all transmission lines so that alternating current electric fields do not exceed 9 kV per meter at one meter above the ground surface in areas accessible to the public.
- d. Designing and maintaining all transmission lines so that induced voltages during operation are as low as reasonably achievable

[Final Order V.D.2.1] [AMD2]

7.2 To protect the public from electrical hazards, the certificate holder must enclose the facility switchyard or substations with appropriate fencing and locked gates.
[Final Order V.D.2.2] [AMD2]

7.3 If the Council finds, at any time during facility operation, that cooling tower emissions are likely to contribute significantly to ground-level fogging or icing along public roads and to cause a significant threat to public safety, the certificate holder shall cooperate

with appropriate local public safety authorities regarding implementation of reasonable safety measures, such as posting warning signs on affected roads. Cooperation may include, but is not necessarily limited to, the reimbursement of expenses for posting warning signs and implementing other safety measures.

[Final Order V.D.2.4]

- 7.4 The certificate holder must comply with all emergency planning and notification requirements of Emergency Planning and Community Right-to-Know Act (EPCRA) Section 302.
[Final Order V.D.2.6]
- 7.5 The certificate holder must comply with all reporting requirements of the Emergency Planning and Community Right-to-Know Act (EPCRA) Section 304, including reporting of any chemical release in an amount equal to or greater than the EPCRA reportable quantity for that chemical.
[Final Order V.D.2.7]
- 7.6 [Deleted]
[Final Order V.D.2.8][AMD1]
- 7.7 The certificate holder must comply with all reporting requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), including reporting of any chemical release in an amount equal to or greater than the CERCLA reportable quantity for that chemical.
[Final Order V.D.2.9]
- 7.8 The certificate holder shall notify the Department of Energy and Morrow County within 72 hours of any occurrence involving the facility if:
 - a. There is an attempt by anyone to interfere with its safe operation;
 - b. A natural event such as an earthquake, flood, tsunami or tornado, or a human-caused event such as a fire or explosion affects or threatens to affect the public health and safety or the environment; or
 - c. There is any fatal injury at the facility.
[Final Order V.D.2.10] [Mandatory Condition OAR 345-026-0170] [AMD1]
- 7.9 The certificate holder must develop and implement a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a permanent nature that could become inadvertently charged with electricity are grounded or bonded throughout the life of the line. A current copy of the electrical protection plan must be available at the O&M building and provided upon request by ODOE staff.
[Final Order IV.O.2.2] [Mandatory Condition OAR 345-027-0023(4)]

8.0 ON-SITE SAFETY AND SECURITY

- 8.1 During construction and operation of the facility, the certificate holder shall provide for on-site security and shall establish good communications between on-site security personnel and the Morrow County Sheriff's Office. During operation, the certificate holder shall ensure that appropriate law enforcement agency personnel have an up-to-

date list of the names and telephone numbers of facility personnel available to respond on a 24-hour basis in case of an emergency on the facility site.
[Final Order IV.M.2.1]

- 8.2 During construction, the certificate holder shall require that all on-site construction contractors develop and implement a site health and safety plan that informs workers and others on-site about first aid techniques and what to do in case of an emergency. The plan shall also include important telephone numbers and the locations of on-site fire extinguishers and nearby hospitals. The certificate holder shall ensure that construction contractors have personnel on-site who are first aid and CPR certified.
[Final Order IV.M.2.2]
- 8.3 During operation, the certificate holder shall develop and implement a site health and safety plan that informs employees and others on-site about first aid techniques and what to do in case of an emergency. The plan shall also include important telephone numbers and the locations of on-site fire extinguishers and nearby hospitals.
[Final Order IV.M.2.3]
- 8.4 During construction, the certificate holder shall ensure that construction vehicles and equipment are operated on graveled areas to the extent possible and that open flames, such as cutting torches, are kept away from dry grass areas.
[Final Order IV.M.2.4]
- 8.5 During operation, the certificate holder shall ensure that all on-site employees receive annual fire prevention and response training by qualified instructors or members of the local fire districts. The certificate holder shall ensure that all employees are instructed to keep vehicles on roads and off dry grassland, except when off-road operation is required for emergency purposes.
[Final Order IV.M.2.5]
- 8.6 During construction and operation, the certificate holder shall ensure that all service vehicles are equipped with shovels and portable fire extinguishers of a 4500BC or equivalent rating.
[Final Order IV.M.2.6]
- 8.7 During construction and operation, the certificate holder shall develop and implement fire safety plans in consultation with the Boardman Rural Fire Protection District to minimize the risk of fire and to respond appropriately to any fires that occur on the facility site. In developing the fire safety plans, the certificate holder shall take into account the dry nature of the region and shall address risks on a seasonal basis. The certificate holder shall meet annually with local fire protection agency personnel to discuss emergency planning and shall invite local fire protection agency personnel to observe any emergency drill conducted at the facility.
[Final Order IV.M.2.7]
- 8.8 Upon the beginning of operation of Unit 1, facility components approved in Final Order on RFA1 or facility components approved in Final Order on RFA2, the certificate holder shall provide a site plan to the Boardman Rural Fire Protection District. The certificate holder shall indicate the actual location of all facility structures on the site plan. The

certificate holder shall provide an updated site plan if additional structures are later added to the facility. During operation, the certificate holder shall ensure that appropriate fire protection agency personnel have an up-to-date list of the names and telephone numbers of facility personnel available to respond on a 24-hour basis in case of an emergency on the facility site.

[Final Order IV.M.2.8]

9.0 PROTECTION OF SOIL

- 9.1 The certificate holder must conduct all construction work in compliance with an Erosion and Sediment Control Plan (ESCP) satisfactory to the Oregon Department of Environmental Quality and as required under the NPDES Storm Water Discharge General Permit #1200-C. The certificate holder must include in the ESCP any procedures necessary to meet local erosion and sediment control requirements or storm water management requirements.
[Final Order IV.D.2.1] [AMD2]
- 9.2 During construction, the certificate holder, to the extent practicable, must limit truck traffic to improved road surfaces to avoid soil compaction.
[Final Order IV.D.2.2]
- 9.3 During construction, the certificate holder must implement best management practices to control any dust generated by construction activities, such as applying water to roads and disturbed soil areas.
[Final Order IV.D.2.3]
- 9.4 During construction, the certificate holder must complete monitoring according to the NPDES Storm Water Discharge General Permit #1200-C issued to the certificate holder for construction of the unit to ensure that there are no significant potential adverse impacts to soils and:
[AMD1] [AMD2]
 - a. [Deleted] [AMD1]
 - b. Deleted] [AMD1]
 - c. [Deleted] [AMD1]
 - d. [Deleted] [AMD1]
 - e. After completing construction in an area, the certificate holder must monitor the area until soils are stabilized and evaluate whether construction-related impacts to soils are being adequately addressed by the mitigation procedures described in the Erosion and Sediment Control Plan and the approved Revegetation and Noxious Weed Control Plan. As necessary, the certificate holder must implement follow-up restoration measures such as scarification and reseeding to address those remaining impacts.
[Final Order IV.D.2.4] [AMD1]
- 9.5 During operation, the certificate holder shall routinely inspect and maintain all transmission line corridors, roads, pads and trenched areas and, as necessary, maintain or repair erosion and sediment control measures and control the introduction and spread of noxious weeds.
[Final Order IV.D.2.5]

9.6 Upon completion of construction, the certificate holder must restore vegetation to the extent practicable and shall landscape all areas disturbed by construction in a manner compatible with the surroundings and proposed use and in compliance with the Revegetation and Noxious Weed Control Plan. Upon completion of construction, the certificate holder must remove all temporary structures not required for facility operation and dispose of all timber, brush, refuse and flammable or combustible material resulting from clearing of land and construction of the facility.
[Final Order IV.D.2.7] [Mandatory Condition OAR 345-027-0020(11)]

9.7 During operation, the certificate holder shall restore areas that are temporarily disturbed during facility maintenance or repair activities using the same methods and monitoring procedures described in the Revegetation and Noxious Weed Control Plan.
[Final Order IV.D.2.8]

9.8 The certificate holder must dispose of all accumulated evaporation pond solids, when removed, in a landfill approved for such waste material. All residual solids deposited in evaporation ponds must be removed to an appropriate disposal facility upon closure of the facility. The certificate holder shall include protocols for solids removal and soil restoration at the location of the evaporation ponds in the retirement plan.
[Final Order IV.D.2.9] [AMD1] [AMD2]

9.9 During operation, the certificate holder must minimize drift from the cooling towers through the use of high efficiency drift eliminators that allow no more than a 0.001% drift rate.
[Final Order IV.D.2.10]

9.10 The certificate holder must handle hazardous materials used on the site in a manner that protects public health, safety and the environment and shall comply with all applicable local, state and federal environmental laws and regulations. During operation, the certificate holder may not store gasoline that is intended for fueling vehicles on the facility site.
[Final Order IV.D.2.11]

9.11 If a reportable release of hazardous substance occurs during construction or operation of the facility, the certificate holder must notify the Department within 72 hours and must clean up the spill or release and dispose of any contaminated soil or other materials according to applicable regulations. The certificate holder must make sure that spill kits containing items such as absorbent pads are located on equipment, near storage areas, and in the administrative or maintenance areas of the facility. The certificate holder must instruct employees about proper handling, storage and cleanup of hazardous materials.
[Final Order IV.D.2.12]

10.0 PROTECTION OF NATURAL RESOURCES

10.1 Prior to construction, the certificate holder shall:

- Consult with the Oregon Department of Fish and Wildlife and prepare a final Wildlife and Habitat Monitoring Mitigation Plan and submit the plan to the Department for review and approval. The certificate holder must conduct all wildlife and habitat

monitoring as described in the approved Wildlife and Habitat Monitoring and Mitigation Plan, as amended from time to time.

[Final Order IV.H.2.1] [Mandatory Condition OAR 345-027-0020(6)]

- ii. Submit for review and approval by the Department, in consultation with the Oregon Department of Fish and Wildlife, a final Wildlife and Habitat Monitoring Mitigation Plan based upon the mitigation methodology and enhancement actions in the draft amended plan provided in the Final Order on Amendment 2. The certificate holder must conduct all wildlife and habitat monitoring as described in the approved Wildlife and Habitat Monitoring and Mitigation Plan, as amended from time to time. [AMD1] [OAR 345-025-0016] [AMD1] [AMD2]

10.2 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, and facility components approved in the Final Order on RFA2, 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, 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] [AMD2]

10.3. The certificate holder shall consult with the Oregon Department of Fish and Wildlife prior to commencement of construction to determine the final acreage of habitat mitigation required. Mitigation shall be provided in accordance with this final acreage determination.

[Final Order IV.H.2.3] [AMD1]

10.4. The certificate holder shall conduct noxious weed inventories within the Habitat Mitigation Area (HMA) to identify patches of weed infestation 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. Weeds shall be controlled as needed to maintain and enhance habitat quality within the mitigation area, with the goal of working toward eradication of targeted noxious weeds or, if eradication is not practical, decreasing their abundance to minimize impacts to native plant communities. Weed management practices shall be consistent with the Revegetation and Noxious Weed Control Plan and shall include an integrated weed management approach, using an appropriate combination of prevention and control methods. The certificate holder shall obtain ODFW approval prior to the use of pesticides. If a substantial area of soil is left bare from weed control activities, the area shall be seeded using the appropriate methods as described in the Revegetation and Noxious Weed Control Plan.

[Final Order IV.H.2.5] [AMD1] [AMD2]

10.5. If vegetation in the HMA is damaged from fire or from fire suppression efforts (e.g., vehicular disturbance), the area shall be seeded as necessary with the appropriate seed mix using the appropriate methods for the site, as described in the Revegetation and Noxious Weed Control Plan.
[Final Order IV.H.2.6] [AMD2]

10.6. The certificate holder shall monitor and control access to the HMA and shall post signs for the life of the facility designating the area as "protected" and including natural resources information. Access to the proposed area shall be limited to operational needs, conservation area monitoring, and noxious weed control efforts. Any fences within or bordering the HMA shall be modified to wildlife-friendly specifications. Livestock grazing shall not be permitted within the HMA. Periodic monitoring (at least annually) shall be conducted to evaluate effectiveness of access control measures and signage maintenance needs.
[Final Order IV.H.2.7] [AMD2]

10.7. The certificate holder must:

- i. Implement measures to avoid or minimize temporary and permanent impacts to high quality native habitat and to retain habitat cover in the general landscape, where practicable.
 - a. The certificate holder shall not construct any facility components within areas of Category 1 habitat and shall avoid temporary disturbance of Category 1 habitat.
 - b. Before beginning construction, the certificate holder shall provide to the Department a map showing the final design locations of all components of the facility and the areas that would be disturbed during construction and identifying the survey areas for all plant and wildlife surveys conducted in 2010 or earlier as described in the Final Order on the Application. The certificate holder shall use a qualified professional biologist to conduct a pre-construction plant and wildlife investigation of all areas that would be disturbed during construction that lie outside of the previously surveyed areas. The certificate holder shall provide a written report of the investigation to the Department and to the Oregon Department of Fish and Wildlife. Based on consultation with the Department and ODFW, the certificate holder shall implement appropriate measures to avoid impacts to any Category 1, 2, or 3 habitat, to any State-listed threatened or endangered plant or wildlife species, and to any State Candidate plant species. If any Category 2 or 3 habitat is identified and will be impacted, the certificate holder shall work with the Department and ODFW to identify appropriate mitigation measures for such impacts.
 - c. Before beginning construction, the certificate holder's qualified professional biologist shall survey the previously-identified Category 1 Washington ground squirrel habitat to ensure that the sensitive use area is correctly marked with exclusion flagging and avoided during construction. The certificate holder shall maintain the exclusion markings until construction has been completed.
 - d. Before beginning construction, certificate holder's qualified professional biologist shall complete aerial raptor nest surveys within the raptor nest survey area as described in the Final Order on the Application. The purposes of the survey are to identify any sensitive raptor nests near construction areas and to provide baseline information on raptor nest use for analysis as described in the Wildlife

and Habitat Monitoring and Mitigation Plan referenced in Condition 10.1. The certificate holder shall provide a written report on the raptor nest surveys to the Department and to ODFW.

[Final Order IV.H.2.9]

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

[AMD1]

10.8. During construction, the certificate holder shall avoid all construction activities within one mile of golden eagle nests, 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 August 15	May 31
Bald Eagle	January 1 to August 15	May 31
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 any areas that would be disturbed during construction. Surveys shall be extended to one mile for golden eagle nests and 0.6 miles for ferruginous hawk nests. This construction buffer distance may be decreased with approval by ODFW and USFWS depending on the intensity of construction activity and whether there is an adequate physical barrier (i.e., vegetation, topography, etc.) between the nest site and the construction impacts or if consultation determines a lesser distance is feasible and appropriate. The certificate holder shall begin monitoring potential nest sites by the beginning of the sensitive period, as listed above, and shall continue monitoring until at least May 31 (July 15 for golden eagle

nests) to determine whether any potentially-active nest sites become active during the sensitive period.

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

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

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

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

10.9 The certificate holder shall implement the following measures to avoid or mitigate impacts to sensitive wildlife habitat during construction:

- a. Preparing maps to show exclusion areas that are off-limits to construction personnel, such as nesting or denning areas for sensitive wildlife species.
- b. Avoiding unnecessary road construction, temporary disturbance, and vehicle use.
- c. Limiting construction work to approved and surveyed areas shown on facility constraints maps.
- d. Ensuring that all construction personnel are instructed to avoid driving cross-country or taking short-cuts within the site boundary or otherwise disturbing areas outside of the approved and surveyed construction areas.

[Final Order IV.H.2.11]

10.10 The certificate holder shall reduce the risk of injuries to avian species by designing and installing all aboveground transmission line support structures following the most

current suggested practices for avian protection on power lines published by the Avian Power Line Interaction Committee.
[Final Order IV.H.2.12]

10.11 Sensitive raptor nest monitoring shall be conducted by qualified biologists in year one, year three, and year five after operations of Unit 1 have begun and then at least every five years after that for the life of the project in years divisible by five. Results of the monitoring shall be included in an annual sensitive raptor nest monitoring report provided to the Oregon Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, and the Department. This report shall document the nest productivity of sensitive raptor species, including golden eagle (*Aquila chrysaetos*), occurring within one mile of the Carty Generating Station facility, the Ferruginous Hawk occurring within 0.6 miles, and other sensitive raptor species nests occurring within 1,300 feet of the facility site.
[Final Order IV.H.2.13] [AMD1] [AMD2]

10.12. The certificate holder shall use a qualified environmental professional to provide environmental training during construction and operation. Environmental training includes information on the sensitive species present onsite, precautions to avoid injuring or destroying wildlife or sensitive wildlife habitat, exclusion areas, permit requirements, and other environmental issues. The certificate holder shall instruct construction and operations personnel to report any injured or dead wildlife detected while on the site to the appropriate onsite environmental manager.
[Final Order IV.H.2.14]

10.13. The certificate holder shall not place any structures in jurisdictional waters of Sixmile Canyon and shall avoid new impacts to Sixmile Canyon during construction by using the existing access road for vehicle crossing only during the dry season. Impacts to jurisdictional waters in Sixmile Canyon drainages shall be avoided.
[Final Order IV.H.2.15] [AMD1]

10.14. Prior to construction, the certificate holder shall conduct surveys for Washington ground squirrel (WGS) and Lawrence's milkvetch.

- i. The certificate holder shall determine the boundaries of Category 1 Washington ground squirrel (WGS) habitat based on the locations where the squirrels were found to be active in the most recent WGS surveys prior to the beginning of construction in habitat suitable for WGS foraging or burrow establishment ("suitable habitat"). The certificate holder shall use a qualified professional biologist who has experience in detection of WGS to conduct surveys within the site boundary using appropriate search protocols. Except as provided in (a), the biologist shall conduct surveys in the active squirrel season (February 1 to June 30) at least once every three years until the beginning of construction in suitable habitat. The biologist shall survey all areas of suitable habitat where permanent facility components would be located or where construction disturbance could occur. The certificate holder shall provide written reports of the surveys to the Department and to the Oregon Department of Fish and Wildlife (ODFW) and shall identify the boundaries of Category 1 WGS habitat. During each year in which construction will occur, the boundaries of Category 1 WGS habitat shall be marked by the biologist with high-visibility flagging or markers. The certificate holder shall not begin construction until

the identified boundaries of Category 1 WGS habitat have been approved by the Department. Category 1 WGS habitat includes the areas described in (b) and (c) below.

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

- ii. 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]

10.15 The certificate holder shall impose and enforce a construction and operation speed limit of 20 miles per hour throughout the facility site and, during the active squirrel season (February 1 to June 30), a speed limit of 10 miles per hour from one hour before sunset to one hour after sunrise on private roads near known Washington ground squirrel (WGS) colonies. The certificate holder shall ensure that all construction and operations personnel are instructed to watch out for and avoid WGS and other wildlife while driving through the facility site.

[Final Order IV.I.2.2]

10.16 The certificate holder shall use perch-preventing structures on Carty Generating Station components in areas identified as Category 1 habitat for Washington ground squirrels.

[Final Order IV.I.2.3]

10.17 The certificate holder shall provide environmental awareness training for all project personnel and construction contractors before such contractors or personnel enter the site to perform construction-related activities. The training program shall discuss Washington ground squirrel issues as well as other environmental issues related to the project, and include handouts with identification information and reporting procedures.

Additional training sessions shall be conducted as needed for personnel that start after the beginning of construction.

[Final Order IV.I.2.4]

- 10.18 In order to discourage Washington ground squirrels from moving into planned construction areas the certificate holder may disc or till a minimum of an 800-ft. buffer within the perimeter of the site boundary, or implement other approved measures, in closest proximity to squirrel activity areas. Proposed measures and areas where measures will be implemented shall be reviewed by ODFW and shall be informed by the most recent Washington ground squirrel survey data.
[Final Order IV.I.2.5] [AMD1]
- 10.19 If the certificate holder discs or tills areas, the certificate holder shall plant dryland wheat or another cover crop in tilled areas within the site boundary. Crops to be planted shall be selected by the certificate holder in coordination with ODFW.
[Final Order IV.I.2.6] [AMD1]
- 10.20 Should new Washington ground squirrel burrows become established within 785 feet of the site boundary, the certificate holder shall immediately report to ODFW. The certificate holder shall coordinate with ODFW to establish additional mitigation measures or to obtain an Incidental Take Permit, as appropriate.
[Final Order IV.I.2.8] [AMD1]
- 10.21 The certificate holder shall conduct post-construction surveys on known Washington ground squirrel colonies in the Carty Generating Station facility area, on land owned by the certificate holder, both within the HMA and in areas where known active burrows were recorded during preconstruction field surveys. The Washington ground squirrel surveys shall be conducted by qualified biologists in year one, year three, and year five after operations of Unit 1 have begun, and then at least every five years after that for the life of the project in years divisible by five. Surveyors shall record evidence of Washington ground squirrel activity, current land use, and evidence of conditions caused by the project that might increase erosion or result in a decline in vegetation quality and adversely affect a Washington ground squirrel colony.
[Final Order IV.I.2.9] [AMD1] [AMD2]
- 10.22 The certificate holder shall implement a waste management plan during operation that includes but is not limited to the following measures:
 - a. Training employees to minimize and recycle solid waste.
 - b. Recycling paper products, metals, glass and plastics.
 - c. Recycling used oil and hydraulic fluid.
 - d. Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler.
 - e. Segregating all hazardous wastes such as used oil, oily rags and oil-absorbent materials, mercury-containing lights and lead-acid and nickel-cadmium batteries for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous wastes.
[Final Order IV.N.2.2]

10.23 During construction and operation of the Carty Generating Station, the certificate holder shall obtain potable water from the existing Boeing well or from a bottled water vendor. Water for construction and process water shall be obtained from Carty Reservoir. The certificate holder may use other sources of water for on-site uses subject to prior approval by the Department.
[Final Order V.C.2.1] [AMD1] [AMD2]

10.24 During operation, the certificate holder shall discharge sanitary wastewater generated at the facility to the Boardman Coal Plant and Carty Generating Station sanitary waste facility (sewage lagoons) or the Carty septic system in compliance with DEQ or county permit requirements.
[Final Order IV.N.2.4] [AMD2]

10.25 Before beginning construction of Unit 1, the certificate holder shall receive approval of the wetlands delineation report by the Department of State Lands and provide an approval letter to the Department.
[Final Order V.B.2.1] [AMD2]

10.26 The certificate holder shall avoid impacts to waters of the state in the following manner:

- The certificate holder shall avoid any disturbance to delineated wetlands.
- The certificate holder shall construct stream crossings for transmission lines substantially as described in the Final Order on the Application. In particular, the certificate holder shall not remove material from waters of the State or add new fill material to waters of the State such that the total volume of removal and fill exceeds 50 cubic yards for the project as a whole.
- The certificate holder shall construct support structures for aboveground lines outside of delineated stream channels and shall avoid in-channel impacts.

[Final Order V.B.2.2]

10.27 Before beginning construction, the certificate holder shall provide to the Department a map showing the final design locations of all components of the facility and the areas that would be disturbed during construction and showing the wetlands and stream channels delineated through field surveys conducted prior to construction. For areas to be disturbed during construction that lie outside of the previously-surveyed areas, the certificate holder shall hire qualified personnel to conduct a pre-construction investigation to determine whether any jurisdictional waters of the State exist in those locations. The certificate holder shall provide a written report on the pre-construction investigation to the Department and the Department of State Lands for approval before beginning construction. The certificate holder shall ensure that construction and operation of the facility will not impact any jurisdictional water identified in the pre-construction investigation in a manner that would require a Removal-Fill Permit.
[Final Order V.B.2.3] [AMD1]

10.28 The certificate holder shall demonstrate that the Oregon Department of Environmental Quality has issued to the certificate holder:

- Prior to operation of Unit 1, 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. Prior to operation of the Carty Solar Farm, Addendum 1 of the modified Water Pollution Control Facilities Permit 100189 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 and runoff from the Carty Solar Farm is prohibited. Soil erosion must be repaired within 30 days of occurrence.
[AMD1]
- iii. Prior to operation of facility components authorized by the Final Order on Request for Amendment 2, Addendum 2 of the modified Water Pollution Control Facilities Permit 100189, substantially in the form of Attachment E of the Final Order on Request for Amendment 2.
[AMD2]

10.29

- a. The certificate holder shall comply with state laws and rules applicable to Water Pollution Control Facilities Permits that are adopted in the future to the extent that such compliance is required under the respective statutes and rules.
- b. The certificate holder shall obtain and comply with a Umatilla County Public Health construction permit for the (unlined) septic system.
[Final Order V.E.2.2] [AMD2]

10.30 The certificate holder may not dispose of wastewater into the Boardman settling ponds, vehicle wash water pond or coal yard ponds unless the site certificate and the WPCF are amended to permit such use.
[Final Order V.E.2.3]

10.31 The site certificate holder must meet the compliance dates set out in the WPCF unless alternative compliance dates have been approved in advance in writing by DEQ. Either prior to or not later than 14 calendar days following any lapsed compliance date, the site certificate holder must submit a notice of noncompliance with the established schedule to the Department of Energy and DEQ. Any report of noncompliance must include the cause of noncompliance.
[Final Order V.E.2.4]

10.32 Prior to constructing or modifying wastewater management treatment and disposal facilities, detailed plans must be submitted to and approved by the Department of Environmental Quality.
[Final Order V.E.2.5]

10.34. [Deleted]
[Final Order V.E.2. [AMD1]

10.35. [Deleted]
[Final Order V.E.2.7] [AMD1]

10.36. Prior to discharge of Carty Generating Station sewage to the lagoons, the certificate holder must:

- a. Submit a work plan to remove vegetation from the Clay-lined cells and either leak test the cells or recondition them; and
- b. Submit a long-term plan to ensure the integrity of the clay lined cells. The plan may include evaluating system capacity requirements and modifying system capacity accordingly prior to discharge of Carty Generating Station sewage to lagoons.

[Final Order V.E.2.8]

10.37 The certificate holder must prepare and implement a Hazardous Materials Management and Monitoring plan approved by the Department. The plan(s) must address the handling of potentially hazardous substances (as defined by ORS 465.200) during construction and operation of the facility, measures to prevent on- and off-site contamination and documentation of plan implementation. Separate plans for the construction and operation phases are acceptable. The certificate holder must use hazardous materials in a manner that protects public health, safety and the environment and must comply with all applicable local, state and federal environmental laws and regulations.

The Hazardous Materials Management and Monitoring Plan shall contain the same information required for a Spill Prevention, Control and Countermeasure Plan (40 CFR 112). Whereas the SPCC Plan addresses spill prevention for oil products, the materials management and monitoring plan shall address hazardous substances. The Plan shall include operating procedures to prevent hazardous substances releases, control measures to contain hazardous substance releases, countermeasures to contain, cleanup, and mitigate hazardous substance releases, and procedures for required inspections and testing. This Plan must be submitted to the Department for review and approval prior to respective construction or operation phase of the Carty Generating Station Facility.

[Final Order IV.G.2.2] [AMD1] [AMD2]

10.38. If any inspection performed in accordance with the Hazardous Materials Management and Monitoring Plan identifies improper handling or storage of hazardous substances (as defined by ORS 465.200) or improper record keeping procedures, the certificate holder must correct such deficiencies promptly and must report the corrective actions to the Department. If the certificate holder has not corrected such deficiencies within six months after the date of the inspection report, the certificate holder shall submit to the Council an independently prepared estimate of cost of correction. Upon approval of the estimate by the Council, the certificate holder shall increase the amount of the bond or letter of credit required under Condition IV.G.2.9 by the approved amount of the estimate. In no event, however, shall the certificate holder be relieved of its obligation to exercise all due diligence in correcting deficiencies identified in the course of a site inspection.

[Final Order IV.G.2.3]

10.39. The certificate holder shall report any release (as defined by ORS 465.200) of hazardous substances to the Department within 72 hours after the discovery of such release, in addition to any other reporting requirements under applicable law. If the certificate holder has not remedied a release consistent with applicable Oregon

Department of Environmental Quality standards within six months after the date of the release, the certificate holder shall submit to the Council an independently prepared estimate of the cost to complete necessary remediation. Upon approval of the estimate by the Council, the certificate holder shall increase the amount of its bond or letter of credit by the approved amount of the estimate. In no event, however, shall the certificate holder be relieved of its obligation to exercise all due diligence in remedying a release of hazardous substances.

[Final Order IV.G.2.4] [AMD1]

- 10.40. The certificate holder shall maintain the reservoir at an elevation no lower than an annual average of 665 feet mean sea level (MSL). The certificate holder may operate the reservoir at a lower elevation without a site certificate amendment if the certificate holder consults with the Department and ODFW to determine that the lower elevation would not result in a net loss of habitat and, therefore, does not warrant further analysis and potential mitigation through a site certificate amendment process. The certificate holder shall submit an Amendment Determination Request supporting a conclusion that a site certificate amendment is not required and receive concurrence with the conclusions of the ADR prior to operating the reservoir at a lower elevation.
[AMD2]

11.0 PROTECTION OF HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES

- 11.1 [Deleted]
[Final Order IV.K.2.1] [AMD1]
- 11.2 Before beginning construction, the certificate holder shall provide to the Department a map showing the final design locations of all components of the facility, the areas that would be temporarily disturbed during construction, the areas that were surveyed in 2009 as described in the Final Order on the ASC or that have been subsequently surveyed.
[Final Order IV.K.2.2] [AMD1]
- 11.3 The certificate holder shall:
 - a. Use qualified personnel to conduct field investigation of all areas to be disturbed during construction that lie outside the previously-surveyed areas. The certificate holder shall provide a written report of the field investigation to the Department and to the Oregon State Historic Preservation Office (SHPO). If any potentially significant historic, cultural, or archaeological resource sites are found during the field investigation, the certificate holder shall instruct all construction personnel to avoid the identified sites and shall implement appropriate measures to protect the sites, including the measures described in Condition 11.5.
 - b. Prior to construction of facility components approved in the Final Order on RFA2, use qualified personnel to conduct field investigation of all areas to not previously disturbed or minimally disturbed. The certificate holder shall provide a written report of the field investigation to the Department and to the Oregon State Historic Preservation Office (SHPO), and shall consult with the CTUIR on whether any areas would require a cultural monitor during construction. If any

potentially significant historic, cultural, or archaeological resource sites are found during the field investigation, the certificate holder shall instruct all construction personnel to avoid the identified sites and shall implement appropriate measures to protect the sites, including the measures described in Condition 11.5.

[Final Order IV.K.2.3; AMD2]

- 11.4. The certificate holder shall ensure that a qualified archaeologist, as defined in OAR 736-051-0070, develops a training program for cultural resources. The program will instruct construction personnel in the identification of cultural materials and avoidance of accidental damage to identified resource sites. Records of such training shall be maintained at the administration/control building and made available to authorized representatives of the Department upon request.

[Final Order IV.K.2.4] [AMD1]

- 11.5. The certificate holder shall ensure that construction personnel cease all ground-disturbing activities in the immediate area if any archaeological or cultural resources are found during construction of the facility until a qualified archeologist can evaluate the significance of the find. The certificate holder shall notify the Department and the SHPO of the find. If the SHPO determines that the resource is significant, the certificate holder shall make recommendations to the Council for mitigation, including avoidance, field documentation and data recovery, in consultation with the Department, SHPO, interested tribes and other appropriate parties. The certificate holder shall not restart work in the affected area until the certificate holder has demonstrated to the Department and the SHPO that it has complied with archaeological resource protection regulations.

[Final Order IV.K.2.5]

- 11.6. The certificate holder shall:

- i. Prepare and implement an 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 facility. A current copy of the plan must be maintained at the administration/control building and made available to authorized representatives of the Department upon request. The Archaeological Monitoring Plan, as proposed by the certificate holder, shall include the following requirements:
 - a. [Deleted]
[AMD1].
 - b. A qualified archaeological monitor is a person who meets the “qualified archaeologist” standards defined by ORS 390.235(6)(b) or who is supervised by a “qualified archaeologist.” If the latter applies, the supervising qualified archaeologist must vouch for the work of the archaeological monitor and author or co-author the archaeological monitoring report provided at the end of construction monitoring.
 - c. The archaeological monitor will keep a daily log of construction and monitoring activities. If intact archaeological materials are encountered during the

monitoring, the archaeological monitor will initiate procedures for inadvertent discovery of archaeological resources, as specified in ORS 358.920.

- d. 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.
- e. 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.
- f. 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 archaeological monitor and any inadvertent discoveries encountered, along with actions taken to address them.
[Final Order IV.K.2.6]

- 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; in this event, Condition 11.6.ii(c) through (f) would then be applicable.
 - c. 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.
 - d. 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.
 - e. 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.
 - f. 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]

12.0 CARBON DIOXIDE EMISSIONS

- 12.1 The net carbon dioxide emissions rate for the base load gas plant must not exceed 0.675 pounds of carbon dioxide per kilowatt-hour of net electric power output, with carbon dioxide emissions and net electric power output measured on a new and clean basis, as defined in OAR 345-001-0010.
[Final Order IV.P.2.1]

12.2 The net carbon dioxide emissions rate for incremental emissions for the facility operating with power augmentation must not exceed 0.675 pounds of carbon dioxide per kilowatt-hour of net electric power output, with carbon dioxide emissions and net electric power output measured on a new and clean basis at the site during the times of year when the facility is intended to operate with power augmentation, subject to modification under Condition 12.12.
[Final Order IV.P.2.2]

12.3 For the purposes of the site certificate, “monetary path payment requirement” means the amount of offset funds determined pursuant to OAR 345-024-0550, -0560, -0590 and -0600 and the amount of the selection and contracting funds that the certificate holder must disperse to The Climate Trust, as the qualified organization, pursuant to OAR 345-024-0710 and the site certificate. The certificate holder shall calculate the monetary path payment requirement using an offset fund rate of \$1.27 per ton of carbon dioxide in 2011 dollars.

- The certificate holder shall calculate 2011 dollars using the Index described in Condition 15.1.b.
- The certificate holder shall increase the amount of the letter of credit described in Condition 12.9 by the percentage increase in the Index. The certificate holder shall index the funds from the date of the Council’s approval of the site certificate to the date of disbursement of funds to The Climate Trust.

[Final Order IV.P.2.3]

12.4 Before beginning construction of the facility, the certificate holder shall submit to the Department information identifying its final selection of a gas turbine vendor, heat recovery steam generator vendor along with the following information, as appropriate:

- For the base load gas plant, the certificate holder shall submit written design information, based on its contracts with vendors, sufficient to verify the plant’s designed new and clean heat rate (higher heating value) and its net power output at the average annual site condition. The certificate holder shall submit an affidavit certifying the heat rate and capacity.
- For the base load gas plant designed with power augmentation, the certificate holder shall submit written design information, based on its contracts with vendors, sufficient to verify the facility’s designed new and clean heat rate (higher heating value) and its net power output at the site during the times of year when the facility is intended to operate with power augmentation. The certificate holder shall submit an affidavit certifying the heat rate and capacity.

[Final Order IV.P.2.4] [AMD1]

12.5 Before beginning construction of Unit 1, the certificate holder shall specify to the Department the annual average hours and the times that it expects to operate with power augmentation.
[Final Order IV.P.2.5]

12.6 To calculate the initial monetary path payment requirement, the certificate holder shall use the contracted design parameters for capacities and heat rates submitted under Condition 12.4 and the annual average hours and times of operation with power augmentation specified under Condition 12.5.

[Final Order IV.P.2.6]

12.7 Before beginning construction of Unit 1, the certificate holder shall enter into a Memorandum of Understanding (MOU) with The Climate Trust that establishes the disbursement mechanism to transfer selection and contracting funds and offset funds to The Climate Trust.

- The MOU must be substantially in the form of Exhibit 3 to the Final Order on the Application. At the request of the certificate holder, the Council may approve a different form of a letter of credit and concurrent MOU without an amendment of the site certificate.
- Either the certificate holder or The Climate Trust may submit to the Council for the Council's resolution any dispute between the certificate holder and The Climate Trust concerning the terms of the letter of credit, the MOU or any other issues related to the monetary path payment requirement. The Council's decision shall be binding on all parties.

[Final Order IV.P.2.7] [AMD1]

12.8 The certificate holder shall submit all monetary path payment requirement calculations to the Department for verification in a timely manner before submitting a letter of credit for Council approval, before entering into an MOU with The Climate Trust as required by Condition 12.7, and before making disbursements to The Climate Trust.

[Final Order IV.P.2.8] [AMD1]

12.9 Before beginning construction of Unit 1, the certificate holder shall submit to The Climate Trust a letter of credit in the amount of the offset funds of the monetary path payment requirement as determined under Condition 12.3.

- The certificate holder shall use a form of letter of credit that is substantially in the form of Appendix B to the MOU described in Condition 12.7. At the request of the certificate holder, the Council may approve a different form of a letter of credit without an amendment of the site certificate.
- The certificate holder shall use an issuer of the letter of credit approved by the Council.
- The certificate holder shall maintain the letter of credit in effect until the certificate holder has disbursed the full amount of the offset funds to The Climate Trust. The certificate holder may reduce the amount of the letter of credit commensurate with payments it makes to The Climate Trust. The letter of credit must not be subject to revocation before disbursement of the full amount of the offset funds.

[Final Order IV.P.2.9] [AMD1]

12.10 For any transfer of the site certificate approved under OAR 345-027-0100:

- If The Climate Trust has not yet fully withdrawn the amount of the letter of credit of the current certificate holder at the time of the transfer, the new certificate holder shall submit to The Climate Trust a pro-rated letter of credit, subject to the requirements of Condition 12.9. The new certificate holder shall submit to Council for the Council's approval the identity of the issuer of the letter of credit. The Council may approve a new letter of credit without a site certificate amendment.

- b. The new certificate holder shall enter into an MOU with The Climate Trust as described in Condition 12.7 unless the new certificate holder demonstrates to the satisfaction of the Department that there has been a valid assignment of the current certificate holder's MOU to the new certificate holder. The Council may approve a new MOU without a site certificate amendment.
- c. For resolution of any dispute between the new certificate holder and The Climate Trust concerning the disbursement mechanism for monetary path payments or any other issues related to the monetary path payment requirement, either party may submit the dispute to the Council as provided in Condition 12.7.b.
[Final Order IV.P.2.10]

12.11 The certificate holder shall disburse to The Climate Trust offset funds and selection and contracting funds when requested by The Climate Trust in accordance with Conditions 12.13 and 12.14 and the following requirements:

- a. The certificate holder shall disburse selection and contracting funds to The Climate Trust before beginning construction and as appropriate when additional offset funds are required under Conditions 12.13 and 12.14.
- b. Upon notice pursuant to subsection (c), The Climate Trust may request from the issuer of the letter of credit the full amount of all offset funds available or it may request partial payment of offset funds at its sole discretion. Notwithstanding the specific amount of any contract to implement an offset project, The Climate Trust may request up to the full amount of offset funds the certificate holder is required to provide to meet the monetary path payment requirement.
- c. The Climate Trust may request disbursement of offset funds pursuant to paragraph (b) by providing notice to the issuer of the letter of credit that The Climate Trust has executed a letter of intent to acquire an offset project. The certificate holder shall require that the issuer of the letter of credit disburse offset funds to The Climate Trust within three business days of a request by The Climate Trust for the offset funds in accordance with the terms of the letter of credit.

[Final Order IV.P.2.11]

12.12 Within the first 12 months of commercial operation of the facility, the certificate holder shall conduct a 100-hour test at full power without power augmentation (Year One Test-1) and a test at full power with power augmentation (Year One Test-2). Tests performed for purposes of the certificate holder's commercial acceptance of the facility may suffice to satisfy this condition in lieu of testing after beginning commercial operation.

- a. The certificate holder shall conduct the Year One Test-1 to determine the actual heat rate (Year One Heat Rate-1) and the net electric power output (Year One Capacity-1) on a new and clean basis, without degradation, with the results adjusted for the average annual site condition for temperature, barometric pressure and relative humidity. The certificate holder shall calculate carbon dioxide emissions using a rate of 117 pounds of carbon dioxide per million Btu of natural gas fuel.
- b. The certificate holder shall conduct the Year One Test-2 to determine the actual heat rate (Year One Heat Rate-2) and net electric power output (Year One Capacity-2) for the facility operating with power augmentation, without degradation, with the results adjusted for the site condition for temperature, barometric pressure and relative humidity at the site during the times of year

when the power augmentation is intended to operate. The certificate holder shall calculate carbon dioxide emissions using a rate of 117 pounds of carbon dioxide per million Btu of natural gas fuel.

- c. The certificate holder shall notify the Department at least 60 days before conducting the tests required in subsections (a) and (b) unless the certificate holder and the Department have mutually agreed that less notice will suffice.
- d. Before conducting the tests required in subsections (a) and (b), the certificate holder shall, in a timely manner, provide to the Department for its approval a copy of the protocol for conducting the tests. The Department may approve modified parameters for testing power augmentation on a new and clean basis and pursuant to OAR 345-024-0590(1) without a site certificate amendment. The certificate holder shall not conduct the tests until the Department has approved the testing protocols.
- e. Within two months after completing the Year One Tests, the certificate holder shall provide to the Council reports of the results of the Year One Tests.

[Final Order IV.P.2.12]

12.13 Based on the data from the Year One Tests described in Condition 12.12, the certificate holder shall calculate an adjusted monetary path payment. The certificate holder shall submit its calculations to the Department for verification. If the adjusted amount exceeds the amount of the letter of credit provided according to Condition 12.9 before beginning construction, the certificate holder shall fully disburse the excess amount directly to The Climate Trust within 30 days of the Department's verification of the calculations.

- a. The certificate holder shall include the appropriate calculations of the adjusted monetary path payment with its reports of the results of the Year One Tests required under Condition 12.12.
- b. For calculating the adjusted monetary path payment, the certificate holder shall use an offset fund rate of \$1.27 per ton of carbon dioxide (in 2011 dollars) and shall calculate contracting and selecting funds based on 10 percent of the first \$500,000 in offset funds and 4.286 percent of any offset funds in excess of \$500,000 (in 2011 dollars).
- c. In no case shall the certificate holder diminish the value of the letter of credit it provided before beginning construction or receive a refund from The Climate Trust based on the calculations made using the Year One Capacities and the Year One Heat Rates.

[Final Order IV.P.2.13]

12.14 The certificate holder shall use the Year One Capacity-2 and Year One Heat Rate-2 that it reports for the facility, as described in Condition 12.12.b, to calculate whether it owes supplemental monetary path payments due to increased hours that it uses power augmentation.

- a. Each five years after beginning commercial operation of the facility (five-year reporting period), the certificate holder shall report to the Department the annual average hours the facility operated with power augmentation during that five-year reporting period, as required under OAR 345-024-0590(6). The certificate holder shall submit five-year reports to the Department within 30 days after the anniversary date of beginning commercial operation of the facility.

- b. If the Department determines that the facility exceeded the projected net total carbon dioxide emissions calculated under Conditions 12.4, 12.5 and 12.12, prorated for five years, during any five-year reporting period described in subsection (a), the certificate holder shall offset excess emissions for the specific reporting period according to paragraph (i) and shall offset the estimated future excess emissions according to paragraph (ii), as follows:
 - i. In determining whether there have been excess carbon dioxide emissions that the certificate holder must offset for a five-year reporting period, the Department shall apply OAR 345-024-0600(4)(a). The certificate holder shall pay for the excess emissions at \$1.27 per ton of carbon dioxide emissions (in 2011 dollars). The Department shall notify the certificate holder and The Climate Trust of the amount of supplemental payment required to offset excess emissions.
 - ii. The Department shall calculate estimated future excess emissions for the remaining period of the deemed 30-year life of the facility using the parameters specified in OAR 345-024-0600(4)(b). The certificate holder shall pay for the estimated excess emissions at \$1.27 per ton of carbon dioxide (in 2011 dollars). The Department shall notify the certificate holder of the amount of supplemental payment required to offset future excess emissions.
 - iii. The certificate holder shall offset excess emissions identified in paragraphs (i) and (ii) using the monetary path as described in OAR 345-024-0710. The certificate holder shall pay selection and contracting funds of 10 percent of the first \$500,000 in offset funds and 4.286 percent of any offset funds in excess of \$500,000 (in 2010 dollars).
- c. The certificate holder shall disburse the supplemental selection and contracting funds and supplemental offset funds to The Climate Trust within 30 days after notification by the Department of the amount that the certificate holder owes.
[Final Order IV.P.2.14]

12.15 The certificate holder shall use only pipeline quality natural gas or shall use synthetic gas with a carbon content per million Btu no greater than pipeline-quality natural gas to fuel the combustion turbines and the power augmentation.
[Final Order IV.P.2.15] [AMD1]

12.16 After the certificate holder has complied with the conditions relating to the carbon dioxide standard before beginning construction, incremental increases in capacity and heat rate that otherwise fall within the limits specified in OAR 345-027-0050(2) do not require an amendment of the site certificate if the certificate holder complies substantially with Conditions 12.1 through 12.15, except as modified below, and if:

- a. The Department or the Council determines, as described in OAR 345-027-0050(5), that the proposed change in the facility does not otherwise require an amendment; and
- b. The certificate holder complies with the appropriate carbon dioxide emissions standard and monetary offset rate in effect at the time the Department or the Council makes its determination under this condition.

[Final Order IV.P.2.16]

12.17 [Deleted]
[Final Order IV.P.2.17] [AMD1]

13.0 NOISE CONTROL AND NOISE COMPLAINT RESPONSE

13.1 To reduce construction noise impacts at nearby residences, the certificate holder shall:

- a. Confine the noisiest operation of heavy construction equipment to the daylight hours.
- b. Require contractors to install and maintain exhaust mufflers on all combustion engine-powered equipment; and
- c. Establish a complaint response system at the construction manager's office to address noise complaints. Records of noise complaints during construction must be made available to authorized representatives of the Department of Energy upon request.

[Final Order V.A.2.1]

13.2 During operation, the certificate holder shall maintain a complaint response system to address noise complaints. The certificate holder shall notify the Department within 15 days of receiving a complaint about noise from the facility. The notification should include the date the complaint was received, the nature of the complaint, the complainant's contact information, the location of the affected property, and any actions taken, or planned to be taken, by the certificate holder to address the complaint.

[Final Order V.A.2.2]

13.3 Upon written notification from the Department, the certificate holder will monitor and record the actual statistical noise levels during operations to verify that the certificate holder is operating the facility in compliance with the noise control regulations. The monitoring plan must be reviewed and approved by the Department prior to implementation. The cost of such monitoring, if required, will be borne by the certificate holder.

[Final Order V.A.2.3]

14.0 MONITORING AND REPORTING REQUIREMENTS - GENERAL

14.1 The following general monitoring conditions apply:

- a. The certificate holder shall consult with affected state agencies, local governments and tribes and shall develop specific monitoring programs for impacts to resources protected by the standards of divisions 22 and 24 of OAR Chapter 345 and resources addressed by applicable statutes, administrative rules and local ordinances. The certificate holder must submit the monitoring programs to the Department of Energy and receive Department approval before beginning construction or, as appropriate, operation of the facility.
- b. The certificate holder shall implement the approved monitoring programs described in OAR 345-027-0028(1) and monitoring programs required by permitting agencies and local governments.
- c. For each monitoring program described in OAR 345-027-0028(1) and (2), the certificate holder shall have quality assurance measures approved by the Department before beginning construction or, as appropriate, before beginning commercial operation.
- d. If the certificate holder becomes aware of a significant environmental change or impact attributable to the facility, the certificate holder shall, as soon as possible, submit a written report to the Department describing the impact on the facility and any affected site certificate conditions.

[Final Order VI.2] [Mandatory Condition OAR 345-027-0028]

14.2 The certificate holder shall report according to the following requirements:

- a. General reporting obligation for energy facilities under construction or operating:
 - i. Within six months after beginning construction, and every six months thereafter during construction of the energy facility and related or supporting facilities, the certificate holder shall submit a semiannual construction progress report to the Department of Energy as described in OAR 345-026-0080(1)(a).
[AMD1]
 - ii. By April 30 of each year after beginning operation, the certificate holder shall submit an annual report to the Department addressing the subjects listed in OAR 345-026-0080 (1)(b). The Council Secretary and the certificate holder may, by mutual agreement, change the reporting date.
[AMD1]
 - iii. To the extent that information required by OAR 345-026-0080 is contained in reports the certificate holder submits to other state, federal or local agencies, the certificate holder may submit excerpts from such other reports to satisfy this rule. The Council reserves the right to request full copies of such excerpted reports.

[Final Order VI.4] [Mandatory Condition OAR 345-026-0080] [AMD1]

14.3 The certificate holder and the Department of Energy shall exchange copies of all correspondence or summaries of correspondence related to compliance with statutes, rules and local ordinances on which the Council determined compliance, except for material withheld from public disclosure under state or federal law or under Council rules. The certificate holder may submit abstracts of reports in place of full reports; however, the certificate holder shall provide full copies of abstracted reports and any summarized correspondence at the request of the Department.

[Final Order VI.5] [Mandatory Condition OAR 345-026-0105]

15.0 RETIREMENT AND FINANCIAL ASSURANCE

15.1 Before beginning construction, 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 Block 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 (b) of this condition. The initial bond or letter of credit amount for the Carty Solar Farm and its supporting facilities is \$2.713 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 (b) of this condition. The initial bond or letter of credit amount for the related or supporting facilities approved in Final Order on RFA2 is \$13.779 million (in 4th Quarter 2020 dollars) to be adjusted to the date of issuance and submitted within 60 days of execution of the Second Amended Site Certificate, and adjusted on an annual basis thereafter, as described in sub-paragraph (b) 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 by applying the unit costs and general costs presented in Site Restoration Cost

Estimate of the Final Order on ASC for Unit 1; Table 4 of the Final Order on RFA1 for Carty Solar Farm; and Table 2 of the Final Order on RFA2 for the approved related or supporting facilities. 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 for Unit 1 (expressed in 3rd Quarter 2011 dollars), Carty Solar Farm (expressed in 3rd Quarter 2016 dollars) and related or supporting facilities approved in Final Order on RFA2 (expressed in 4th Quarter 2020 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 index value and the quarterly index value applicable for Unit 1, Carty Solar Farm, and RFA2 facility components 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 the bond or letter of credit 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 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 345-025-0006(8)] [AMD1] [AMD2]

15.2 If the certificate holder elects to use a bond to meet the requirements of Condition 15.1, the certificate holder shall ensure that the surety is obligated to comply with the requirements of applicable statutes, Council rules and this site certificate when the surety exercises any legal or contractual right it may have to assume construction, operation or retirement of the energy facility. The certificate holder shall also ensure that the surety is obligated to notify the Council that it is exercising such rights and to obtain any Council approvals required by applicable statutes, Council rules and this site certificate before the surety commences any activity to complete construction, operate or retire the energy facility.

[Final Order IV.G.2.10]

15.3 The certificate holder shall prevent the development of any conditions on the site that would preclude restoration of the site to a useful, non-hazardous condition to the extent that prevention of such site conditions is within the control of the certificate holder.

[Final Order IV.G.2.5] [Mandatory Condition OAR 345-025-0006(7)]

15.4 The certificate holder must retire the facility in accordance with a retirement plan approved by the Council if the certificate holder permanently ceases construction or operation of the facility. The retirement plan must describe the activities necessary to restore the site to a useful, non-hazardous condition, as described in OAR 345-027-0110(5). After Council approval of the plan, the certificate holder must obtain the necessary authorization from the appropriate regulatory agencies to proceed with restoration of the site.
[Final Order IV.G.2.6] [Mandatory Condition OAR 345-025-0006(9)]

15.5 The certificate holder is obligated to retire the facility upon permanent cessation of construction or operation. If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110, the Council shall notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the Department within a reasonable time not to exceed 90 days. If the certificate holder does not submit a proposed final retirement plan by the specified date, the Council may direct the Department to prepare a proposed final retirement plan for the Council's approval.
[Final Order IV.G.2.7] [Mandatory Condition OAR 345-025-0006(16)]

15.6 Upon the Council's approval of a final retirement plan prepared per Condition 15.5, the Council may draw on the bond or letter of credit submitted per the requirements of Condition 15.1 to restore the site to a useful, non-hazardous condition according to the final retirement plan, in addition to any penalties the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder shall pay any additional cost necessary to restore the site to a useful, non-hazardous condition. After completion of site restoration, the Council shall issue an order to terminate the site certificate if the Council finds that the facility has been retired according to the approved final retirement plan.
[Final Order IV.G.2.8] [Mandatory Condition OAR 345-027-0020(16)]

15.7 Following receipt of the site certificate or an amended site certificate, the certificate holder shall implement a plan that verifies compliance with all site certificate terms and conditions and applicable statutes and rules. As a part of the compliance plan, to verify compliance with the requirement to begin construction by the date specified in the site certificate, the certificate holder shall report promptly to the Department of Energy when construction begins. Construction is defined in OAR 345-001-0010. In reporting the beginning of construction, the certificate holder shall describe all work on the site performed before beginning construction, including work performed before the Council issued the site certificate, and shall state the cost of that work. For the purpose of this exhibit, "work on the site" means any work within a site or corridor, other than surveying, exploration or other activities to define or characterize the site or corridor. The certificate holder shall document the compliance plan and maintain it for inspection by the Department or the Council.
[Final Order VI.3] [Mandatory Condition OAR 345-026-0048]

16. SUCCESSORS AND ASSIGNS

To transfer this site certificate or any portion thereof or to assign or dispose of it in any other manner, directly or indirectly, the certificate holder shall comply with OAR 345-027-0100.

17. SEVERABILITY AND CONSTRUCTION

If any provision of this agreement and certificate is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the agreement and certificate did not contain the particular provision held to be invalid.

18. GOVERNING LAW AND FORUM

This site certificate shall be governed by the laws of the State of Oregon. Any litigation or arbitration arising out of this agreement shall be conducted in an appropriate forum in Oregon.

19. EXECUTION

This site certificate may be executed in counterparts and will become effective upon signature by the Chair of the Energy Facility Siting Council and the authorized representative of the certificate holder.

IN WITNESS THEREOF, this site certificate has been executed by the State of Oregon, acting by and through its Energy Facility Siting Council, and by Portland General Electric Company.

ENERGY FACILITY SITING COUNCIL

By: _____

Hanley Jenkins IIIMarcy Grail, Chair
Oregon Energy Facility Siting Council

**PORLTAND GENERAL ELECTRIC
COMPANY**

By: _____

Print: _____

Date: _____

Date: _____

**Attachment B-1: Reviewing Agency Comments on the preliminary Request for Amendment 3 of the
Carty Generating Station Site Certificate**



BOARD OF COMMISSIONERS

110 N Court St. • P.O. Box 788
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www.co.morrow.or.us

Jim Doherty, Chair
Melissa Lindsay, Commissioner
Don Russell, Commissioner

April 6, 2022

Kathleen Sloan, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E., 1st Floor
Salem, OR 97301

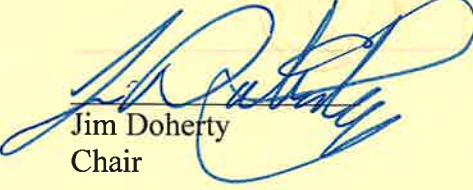
Dear Ms. Sloan,

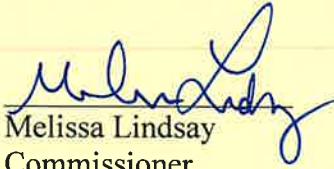
Morrow County appreciates the opportunity to comment on the Carty Generating Station's Request for Amendment 3 (RFA3). It is the understanding of Morrow County that the sole purpose of Amendment 3 is to grant a three-year extension to both the construction commencement and completion deadlines of the Carty Solar Farm. If granted, the construction commencement deadline would be February 4, 2025 and the completion deadline would be February 4, 2028.

To further confirm our understanding, conditions previously included in the Site Certificate will be applied to the solar development and, that you will secure Land Use Permits and Road Access Permits in advance of construction.

As always, the opportunity to comment is very much appreciated. Please continue to coordinate development activities with Public Works Director, Eric Imes, and Planning Director, Tamra Mabbott.

Sincerely,


Jim Doherty
Chair


Melissa Lindsay
Commissioner


Don Russell
Commissioner

Cc: Eric Imes, Director, Morrow County Public Works
Tamra Mabbott, Director, Morrow County Planning
Morrow County Planning Commission

SLOAN Kathleen * ODOE

From: WELCH Doug * DEQ
Sent: Thursday, March 31, 2022 11:08 AM
To: SLOAN Kathleen * ODOE
Cc: BAILEY Mark * DEQ
Subject: Re: Carty Site Certificate

DEQ doesn't have any comments on the Request for Amendment of Carty's Site Certificate. We don't currently have any conditions in DEQ's permit dealing with the Carty Solar Farm.

If you want to discuss during the week of April 11 I am available Tuesday or Thursday of that week.

Thanks,

Doug Welch
Oregon Dept. of Environmental Quality
Pendleton Office
(541) 278-4621
Cell: (541) 241-0153

SLOAN Kathleen * ODOE

From: CHERRY Steve P * ODFW
Sent: Thursday, February 17, 2022 10:50 AM
To: SLOAN Kathleen * ODOE
Subject: RE: Reviewing Agency Notice of Receipt of Preliminary Request for Amendment 3 for Carty Generating Station Site Certificate

Follow Up Flag: Follow up
Flag Status: Flagged

ODFW has visited with PGE on this proposed amendment and does not have any concerns regarding extending the construction date for this project. Please let me know if you need anything further from me. Thanks

Steve

Attachment B-2: Draft Proposed Order Comments

SLOAN Kathleen * ODOE

From: CHERRY Steve P * ODFW

Sent: Thursday, June 30, 2022 4:07 PM

To: SLOAN Kathleen * ODOE

Subject: RE: Reviewing Agency Notification for the Carty Generating Station Request for

Amendment 3, Type B Determination and Draft Proposed Order

ODFW does not have any comments on this DPO or RFA3. Please let me know if you need anything more from

me. Thanks

Steve



Oregon

Kate Brown, Governor

Oregon Department of Aviation

3040 25th Street SE
Salem, OR 97302-1125
Office: 503-378-4880
Fax: 503-373-1688



TO: Kathleen Sloan, Senior Siting Analyst
Oregon Department of Energy

CC: Heather Peck, Planning & Projects Manager
Oregon Department of Aviation

FROM: Seth Thompson, Aviation Planner
Oregon Department of Aviation

DATE: July 12, 2022

SUBJECT: Oregon Department of Aviation (ODAV) Agency Report on the Complete Request for Amendment 3 and Draft Proposed Order for the Carty Generating Station

Proposal Overview:

The Carty Generating Station includes two major components within an overall site boundary of approximately 4,997 acres. The first component is an operational 450 MW, combined-cycle natural gas fueled electric generating power plant and relating and supporting facilities including but not limited to: Grassland Switchyard; Carty substation; 17 mile, 500 kilovolt (kV) Slatt Transmission Line; 16 mile, 230 kV Dalreed Transmission Line; and the Carty Reservoir. These components are located in both Morrow and Gilliam counties.

Amendment Request:

The second component, which is the subject of RFA3, is a yet to be constructed 50 MW solar PV electric power generating unit with electrical collections system and a 2.25 to 3 mile 34.5 kV transmission line on 315 acres (0.49 sq. miles) (Carty Solar Farm), located entirely within Morrow County.

The applicant seeks approval for a three year extension to both the construction commencement and completion deadlines of the Carty Solar Farm. This change would make the new construction commencement deadline February 4, 2025, and the new construction completion deadline February 4, 2028. No other changes are proposed in RFA3.

ODAV Analysis:

Following review of the proposal, staff finds the approved site boundary to be located southeast of the Arlington Municipal Airport (1S8) and west of the Boardman Airport (M50). For these reasons, the proposal may require airspace review by the FAA and ODAV subject to the standards in Code of Federal Regulations: Title 14. Aeronautics and Space: PART 77—Safe, Efficient Use, and Preservation of the Navigable Space.

The ODAV acknowledges that the applicant may have fulfilled prior notice of construction requirements and airspace review with the FAA and ODAV. If airspace review has been completed, it is important to note that all ODAV determinations are valid for 18 months after the determinations' effective date. If the determinations have expired, the applicant is required to re-

notify the ODAV of the proposed construction. As the applicant proposes a new construction commencement deadline of February 4, 2025, any new proposed structures that have not begun construction are likely to require re-notice to the ODAV and possibly new aeronautical determinations.

All project elements are subject to compliance with FAA Part 77.9 Construction or alteration requiring notice (a-d), FAA Part 77.17 Obstruction standards (a-b) and Obstruction Standards of OAR 738-70-0100 if they exceed 200 feet in height or are:

- within 20,000 ft of a public use or military airport and exceed a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 ft.
- within 10,000 ft of a public use or military airport and exceed a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 ft.
- within 5,000 ft of a public use heliport which exceeds a 25:1 surface

To make this determination, any new or replaced supporting facilities or structures more than 200 feet in height or within the distances provided above must undergo airspace review by the FAA and ODAV.

ODAV Recommendations

1. If applicable, the applicant must file and receive a determination from the Oregon Department of Aviation as required by OAR 738-070-0060 on FAA Form 7460-1 Notice of Proposed Construction or Alteration to determine if any new or replaced supporting facilities or structures will pose an obstruction to aviation navigation. The actions below shall be completed in the following order:
 - i. First, submit to and receive responses from the Oregon Department of Aviation (Aviation) of 7460-1 Notice of Proposed Construction or Alteration Forms for all new or replaced supporting facilities or structures that meet the above criteria. The applicant shall provide copies of Aviation responses to the Oregon Department of Energy (ODOE) and shall respond to Aviation marking and lighting recommendations, if applicable.
 - ii. Second, once Aviation responses are received, submit to and receive determinations from the FAA for all new or replaced supporting facilities or structures that meet the above criteria. The applicant shall also provide copies of FAA determinations to ODOE.
2. The height of any new or replaced supporting facilities or structures should not penetrate FAA Part 77 Imaginary Surfaces, as determined by the FAA and ODAV.

Thank you for allowing the ODAV to comment on this development proposal. Please feel free to contact me if you have any questions or need information.

Sincerely,



Seth Thompson, Aviation Planner
503-507-6965 | seth.thompson@odav.oregon.gov



Portland General Electric
121 SW Salmon Street • Portland, Ore. 97204
PortlandGeneral.com

July 12, 2022
Carty Generating Station

Kathleen Sloan
Senior Siting Analyst
Oregon Department of Energy
550 Capital Street NE, 1st Floor
Salem, OR 97301

Subject: Comments on the Carty Generating Station - Draft Proposed Order on Request for Site Certificate Amendment 3

Dear Ms. Sloan,

Portland General Electric Company (PGE) appreciates the opportunity to provide to the Oregon Department of Energy (the Department) comments on the Draft Proposed Order (DPO) on Request for Site Certificate Amendment 3 (AMD3). PGE has organized our comments on the DPO into two categories, administrative comments and substantive comments.

Substantive Comments:

1. Page 4 line 5 - address should be 3WTC0403, not 3WTC-BR05.
2. Page 4 line 31 - "evaluation ponds" should be "evaporation ponds"
3. Page 6 line 14 - suggest changing "warehouse" to "office and warehouse" the approved building will have both types of spaces and this is consistent with the wording used on page 4 line 40/41.
4. Page 9 line 27 - Check the OAR references -0050 and -0070, they may need to be updated.
5. Page 14 line 13 - the blade liberation occurred on February 1, suggest changing "January 2022" to "February 1, 2022".
6. Page 17 line 4 - The sentence states that Conditions 5.4, 6.6, 6.7, 6.8, 6.10, and 6.11 were imposed as part of Request for Site Certificate Amendment 2 (AMD2) to ensure compliance with the Structural Standard. However, many of those Conditions were imposed as part of the original site certificate or amended as part of AMD1 and/or AMD2. Suggest changing line 4 to say, "Council has previously imposed Conditions 5.4, 6.6, 6.7, 6.8, 6.10, and 6.11 to ensure compliance with the Structural Standard."
7. Page 17 line 39 - States that AMD2 modified Condition 5.4, PGE believes this should be a reference to AMD1 rather than AMD2.
8. Page 20 line 35 to 27 - States that Condition 9.1 and 9.4 require monthly inspections of erosion and sediment control measures; however, those conditions do not specifically require monthly inspections. Instead, those conditions require the certificate holder to conduct inspections as required by the 1200-C permit for which the frequency of inspections varies depending on the stage of the project and precipitation. Recommend deleting the word "monthly".

9. Page 43 line 17 and 18 – states that PGE maintains a water right through a third-party limited water use license from the Oregon Department of Water Quality. PGE does not have a third-party limited water use license. In AMD1 PGE stated that the contractor would obtain a third-party limited water use license for dust suppression prior to starting construction. A description of this option was provided as a response to Request for Additional Information on Amendment 1, which can be found on page 207 of the Final Order on Amendment 1. The limited water use license appears to be correctly discussed in other portions of the DPO on AMD3.
10. Page 45 line 24 and 25 – states that PGE has provided a bond for \$23,011,000. The sentence should be changed to say "...has provided a letter of credit for \$23,011,000..."

Administrative:

11. Page 3, last paragraph is a duplicate with only minor changes in wording from the previous paragraph, consider consolidating these two paragraphs.
12. Page 7 line 26 – remove extra "and" prior to the word received.
13. Page 7 line 28 – suggest removing the second time the term "certificate holder" is used. The sentence would then read "On June 10, 2022 the certificate holder submitted a complete RFA3 for the Carty Generating Station."
14. Page 15 – There is a discussion of the requirement to obtain and comply with the terms of an updated WPCF permit for panel wash water. PGE has already obtained the modified permit that allows for solar panel wash water; but the wording in the DPO makes it seem this is an action that will be required in the future. Consider rewording to make it clear that the revised WPCF was issued to PGE as part of AMD1.
15. Page 22 lines 5 through 22 – much of the information is duplicated from the previous few paragraphs, consider reviewing and consolidating information.
16. Page 39 line 4 – extra blank line in the bullets.
17. Page 57 line 21 – add a space between "Amendment 1" and the comma.

If there are any questions regarding these comments do not hesitate to contact me at 503-464-2634.

Sincerely,



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

	Portland General Electric	Procedure
	Inadvertent Discovery Procedure (IDP)	
Document #: PGE-00-ENV-ESI-0005	Effective Date: 11/01/2021	Rev. 2
Verify revision is current prior to use.		

1 Purpose

This procedure provides a protection and mitigation protocol for an inadvertent cultural resource's discovery, until the discovery has reached an appropriate resolution. Most inadvertently-discovered cultural resources occur during ground-disturbing activities associated with facilities development, maintenance, or improvement.

Cultural Resources consist of the physical remains of the activities of people in the past. This Inadvertent Discovery Procedure (IDP) should be followed should any archaeological sites, objects, or human remains are found. These are protected under Federal and State laws and their disturbance can result in criminal penalties.

1.1 Scope

- 1.1.1 The scope of this procedure is to minimize impacts to **cultural resources**.
- 1.1.2 This procedure is applicable to all PGE personnel and PGE contractors.
- 1.1.3 The procedure outlines appropriate steps for PGE employees and their contractors when **cultural resources** are inadvertently or unanticipatedly discovered during work.
- 1.1.4 **Inadvertent discoveries** are categorized as either "definitely human remains" or "not definitely human remains" and the steps after each type of discovery are distinct.
- 1.1.5 **Cultural resources** can be found during any ground-disturbing activity. If encountered all excavation and work in the area MUST STOP. Archaeological objects vary and can include evidence or remnants of historic-era and precontact activities by humans. Archaeological objects can include but are not limited to:
 - A. Stone flakes, arrowheads, stone tools, bone or wooden tools, baskets, beads
 - B. Historic building materials such as nails, glass, metal such as cans, barrel rings, farm implements, ceramics, bottles, marbles
 - C. Layers of discolored earth resulting from hearth fire
 - D. Structural remains such as foundations
 - E. Shell Middens
 - F. Culturally Modified Trees

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G. Human skeletal remains and/or bone fragments which may be whole or fragmented

1.1.6 If there is an **inadvertent discovery** of any **cultural resources**, follow this procedure. If in doubt, call it in.

1.2 Precautions

1.2.1 Determine that the area of the **inadvertent find** is safe to work in before implementing protection measures.

1.2.2 The **inadvertent find** should not be photographed, handled or removed until a professional archaeologist is contacted or on site.

1.2.3 Any communication with media should be routed through PGE's Corporate Communication department and must be avoided until adequate assessment of the discovery is made.

1.2.4 If the **inadvertent find** is clearly human, it must be treated with respect and not further disturbed.

1.2.5 PGE shall make its best efforts, in accordance with federal and state law to ensure that its personnel and contractors keep any discovery confidential. PGE will not contact the media, or any third-party member or members of the public regarding a discovery. Prior to any release of information by PGE, PGE shall concur with the responsible agencies and Tribes on the amount of information, if any, to be released to the public.

1.2.6 If applicable, review the sites HPMP (Historical Properties Management Plan) which is included in the FERC license.

1.2.7 For known environmentally sensitive areas, notify EHS prior to any ground disturbance.

1.3 Limitations

1.3.1 This procedure is limited to the treatment of unanticipated identification of **cultural resources** in the course of a PGE action/operation.

2 Responsibilities

2.1 PGE Personnel and Contractors

2.1.1 Stops work when an **inadvertent discovery** of a **cultural resource** is made.

2.1.2 Contacts appropriate personnel and protects the area, per the procedure.

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2.2 PGE Security

- 2.2.1 Acts as point of contact for calls about inadvertent discoveries.
- 2.2.2 Notifies law enforcement when probable human remains are involved.

2.3 Cultural Resources Specialist

- 2.3.1 Conducts preliminary in-field assessment of the discovery.
- 2.3.2 Coordinates with PGE security as required.
- 2.3.3 Notifies appropriate agencies and/or appropriate Tribes within 24 hours of the discovery.
- 2.3.4 Provides direction and support services to affected personnel.
- 2.3.5 Engages an external consultant if required.

2.4 PGE Management

- 2.4.1 Ensures all site/facility employees have received the **cultural resources** sensitivity training.
- 2.4.2 Contacts PGE's Cultural Resources Specialist to discuss adequate protection for the discovery until a professional in-field assessment of the discovery is made.
- 2.4.3 Follows any additional management plan guidance specific to PGE project facilities.

3 Procedure

3.1 Prerequisite Actions

- 3.1.1 Field personnel and supervisors must complete the required Environmental Compliance Training provided by Environmental and Licensing Services that includes cultural awareness training.

3.2 Procedure

3.2.1 Initial Response

- A. If an **inadvertent discovery** of a cultural resource is made, all work within the area of discovery shall cease immediately.
 - 1. If the **inadvertent discovery** is believed to be human remains stop ALL work immediately and follow these steps.
 - a. Contact PGE Security and Environmental Health & Safety (EHS) immediately within two hours or as soon as reasonably practical.

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- b. Cover remains from view and protect them from damage or exposure, restrict access, and leave in place until directed otherwise. **Do not take photographs. Do not speak to the media.**
- c. PGE Security: Contact local law enforcement to determine whether the find is forensic, i.e., a recent death requiring a criminal investigation.
- d. Contact the PGE's Cultural Resources Specialist (EHS): See the "Cultural Resources Discovery Contact List" (A01).

2. If the discovery is not definitively human remains, PGE's personnel who uncovered the find or their supervisor will contact PGE's Cultural Resources Specialist (EHS) within two hours of discovery or as soon as practical.

- a. PGE's Security does not need to be contacted.

B. PGE Personnel will flag off a buffered area about 200 feet around the discovery if possible.

- 1. The area of work stoppage must be large enough to provide for the security, protection, and integrity of the discovery.

C. PGE Personnel must promptly protect the discovery from continued exposure to the weather and from public view.

- 1. This may be accomplished using a clean tarp or other fabric.

3.2.2 Assessment

- A. If the local law enforcement has been contacted by PGE Security, law enforcement will conduct an assessment to determine if it is a crime scene.
- B. If the site is determined not to be a crime scene by local law enforcement or that the find is definitely not modern, do not move anything! The remains will continue to be secured in place along with any associated funerary objects, and protected from weather, water runoff, and shielded from view. PGE's Cultural Resources Specialist will conduct an on-site assessment of the **inadvertent discovery**.

1. PGE's Cultural Resources Specialist will ensure that all work has halted near the find, that the protection buffer has been created and is adequate, and that the **inadvertent discovery** continues to be treated with respect and secured from harm.

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2. If the discovery has been determined non-modern human remains by law enforcement, PGE's Cultural Resources Specialist will contact the State Historic Preservation Office (SHPO) and Commission on Indian Services (CIS) for further guidance as soon as possible, along with the notifying the appropriate Tribes as designated by CIS.
3. If the discovery is not human remains but a cultural resource, PGE's Cultural Resources Specialist will contact the State Historic Preservation Officer and appropriate Tribes as designated by CIS within 24 hours of the discovery.
4. PGE's Cultural Resources Specialist will inform PGE Management or Project Manager of a reasonable time frame within which construction or maintenance activity can resume at the location of discovery.
5. PGE's Cultural Resources Specialist will inform appropriate PGE management of the **inadvertent discovery** within 24 hours of the find.

C. Do not resume any work in the buffered area until a plan is developed and carried out between the State Police, SHPO, CIS, and appropriate Native American Tribes and you are directed that work may proceed.

3.3 Acceptance Criteria

None

3.4 Post-Performance Activity

- 3.4.1 PGE's Cultural Resources Specialist will coordinate further archaeological fieldwork and reporting required to complete documentation of the **inadvertent find**.
- 3.4.2 If Tribes require repatriation of any **cultural resources**, PGE's Cultural Resources Specialist will coordinate the effort with stakeholders jointly identified by the SHPO, Tribes designated by CIS, and PGE within a reasonable time frame.
- 3.4.3 PGE will follow appropriate laws and management procedures to assure the proper treatment and care of the discovery.
- 3.4.4 PGE's Cultural Resources Specialist will confirm with PGE Management when the area is cleared for work to resume.

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4 References

4.1 Industry Standards or Codes

- 4.1.1 Code Federal Regulations (CFR): Native American Graves Protection and Repatriation Act (NAGPRA): 43 CFR 10
- 4.1.2 Oregon Revised Statute:
 - A. ORS 97.740-994 and 358.905-961: Protection under Oregon State law
 - B. ORS 146.090 & .095: Deaths requiring investigation in OR
- 4.1.3 Revised Code of Washington: RCW 68.50.645, 27.44.055, and 68.60.055: Inadvertent Discoveries in WA

5 Definitions and Acronyms

5.1 Definitions

- 5.1.1 **Cultural Resources:** Physical evidence of past human activity (site, object, structure, natural feature or landscape) considered significant by a group of people traditionally associated with it. **Cultural resources** are defined as being fifty years or older. These resources may include artifacts (lithic or stone tools or fragments of tools, ceramic vessels, animal remains, can scatters, farm equipment), or features (remnants of walls, petroglyphs, cooking hearths or trash middens). **Cultural resources** may be the location of a significant event, prehistoric or historic occupation or activity, whether standing, ruined, or vanished, and possessing historical, cultural, or archaeological value.
- 5.1.2 **Inadvertent Discoveries/Finds:** **Cultural resources** found unexpectedly during construction or maintenance activities.

5.2 Acronyms

- 5.2.1 CIS: Commission on Indian Services
- 5.2.2 EHS: Environmental Health and Safety
- 5.2.3 HPMP: Historical Properties Management Plan
- 5.2.4 IDP: Inadvertent Discovery Procedure
- 5.2.5 NAGPRA: Native American Graves Protection and Repatriation Act
- 5.2.6 SHPO: State Historic Preservation Office

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6 Forms and Appendices

6.1 Forms

None

6.2 Appendices

6.2.1 A01: IDP Contact List

7 Revision Table

Review this document no later than three (3) years of the effective date, as required by the Document Governance.

Rev. No.	Revision Date	Reason for Revision	Affected Pages
0	3/9/2016	Issued for implementation by the Generation Procedure Advisory Committee	ALL
1	2/19/2018	New template; correcting typos in A01.	A01
2	09/14/2021	Purpose statement and Scope section edited; Revised Procedure Steps and Process; Added Confidentiality statement; new template. Scope applicable to all of PGE: numbering changed.	ALL

 Portland General Electric	Portland General Electric		
	IDP Contact List		
Document ID #: PGE-00-ENV-FSL-0005-A01	Effective Date: 11/01/2021		Rev. 2
			Page 1 of 1

Name	Affiliation	Office Phone	Mobile Phone	Email/Other	Availability
On Duty	PGE Security	503-464-8196	–		24/7
Kenny Gunn	PGE Cultural Resources Specialist (EHS)	503-464-BONE (503-464-2663)	503-550-5822	kenny.gunn@pge.com	24/7
Oregon State Police – Lt. Craig Heuberger	Oregon Law Enforcement	Dial *OSP or *677	503-480-0779	ask.osp@osp.oregon.gov or cheuber@osp.oregon.gov	Dispatch 24/7
Washington State Patrol (Vancouver District)	Washington Law Enforcement	(360) 449-7999	–		Dispatch 24/7
Dr. Veronica Vance	Oregon Physical Anthropologist	971-673-8200	971-673-8220 (Dispatch)	Guy.lasa@dahp.wa.gov	Dispatch 24/7
Dr. Guy Tasa	Washington State Physical Anthropologist	360-790-1633	Same	Guy.lasa@dahp.wa.gov	Mon-Fri 8-4
John Pouley	State Archaeologist/ Oregon SHPO	503-480-9164	Same	john.pouley@oregon.gov	Mon-Fri 7:30-3:30
Patrick Flanagan	Commission on Indian Services	503-986-1086		Patrick.Flanagan@oregonlegislature.gov	24/7