Attachment A
Final Order
Port Westward Generating Project

MEMORANDUM OF UNDERSTANDING
THE CLIMATE TRUST AND PORTLAND GENERAL ELECTRIC COMPANY
CARBON DIOXIDE STANDARD IMPLEMENTATION
MONETARY PATH PAYMENT REQUIREMENT

If the parties agree, they may substitute a bond for the letter of credit.

THIS MEMORANDUM OF UNDERSTANDING (this “Agreement”) is entered into as of the ___ day of _________, 200_, by and between Portland General Electric Company (the “Project Owner”) in its capacity as owner of the Port Westward Generating Project, and The Climate Trust (“The Trust”).

RECITALS

1. The Project Owner intends to design, finance, construct, own and operate a natural gas-fired combined-cycle combustion turbine electric generating facility with a base-load net electric power output of about 560 MW and a peaking net electric power output of about 650 MW near the City of Clatskanie, Oregon. The facility, together with its ancillary systems, shall be referred to herein as the “Project.”

2. The State of Oregon requires new energy facilities to meet a carbon dioxide emissions standard as described in OAR 345-024-0550 through -0710.

3. As a condition to the siting of the Project, the Project Owner is required to provide offset funds (“Offset Funds”) and selection and contracting funds (“Selection and Contracting Funds”) to The Trust. In accordance with Section D.15 of the Site Certificate for the Port Westward Generating Project (the “Site Certificate”) that the Oregon Energy Facility Siting Council (the “Council”) granted to the Project Owner, dated November 8, 2002, the Project Owner shall establish a third-party letter of credit (the “Letter of Credit”) in The Trust’s name, acceptable to the Council, sufficient to meet the monetary path requirement. Under the terms and conditions of this Agreement, the monetary path payments will be disbursed to The Trust as specified in the Site Certificate and then by The Trust as specified in OAR 345-024-0710.

4. The Trust is a qualified organization within the meaning of OAR 345-001-0010(46).

NOW, THEREFORE, in consideration of the premises and mutual promises herein contained, the parties hereto agree as follows:

1. Initial Base-Load Monetary Path Payment and Initial Power Augmentation Monetary Path Payment.
1.1 The Project Owner has used the monetary path payment requirement calculations described in Section D.15 of the Site Certificate to calculate the Initial Base-Load Monetary Path Payment amount and has submitted them to the Oregon Office of Energy (the “Office”) for verification. The Trust acknowledges that the calculation of the Initial Base-Load Monetary Path Payment in fourth quarter, 2002 dollars presented in Appendix A is correct and consistent with the Site Certificate.

1.2 The Project Owner has used the monetary path payment requirement calculations described in Section D.15 of the Site Certificate to calculate the Initial Power Augmentation Monetary Path Payment amount and has submitted them to the Office for verification. The Trust acknowledges that the calculation of the Initial Power Augmentation Monetary Path Payment in fourth quarter, 2002 dollars presented in Appendix A is correct and consistent with the Site Certificate.

1.3 The Site Certificate requires that the Selection and Contracting Funds portion of both the Initial Base-Load Monetary Path Payment and the Initial Power Augmentation Monetary Path Payment be adjusted for inflation to the date of disbursement to The Trust using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, published in the then current “Oregon Economic and Revenue Forecast” (the “Index”). The Project Owner shall pay to The Trust the Inflation-Adjusted Selection and Contracting Funds in the amount of $___________ contemporaneously with execution of this Agreement. The Trust acknowledges that the calculations of the Inflation-Adjusted Selection and Contracting Funds presented in Appendix A are correct and consistent with the Site Certificate.

1.4 Based on the verified calculations of the Initial Base-Load Monetary Path Payment and the Initial Power Augmentation Monetary Path Payment set forth in Appendix A, the Project Owner shall pay to the Trust $___________ in Offset Funds in fourth quarter, 2002 dollars pursuant to Section 1.6 below. The Site Certificate requires that the Offset Funds portion of both the Initial Base-Load Monetary Path Payment and the Initial Power Augmentation Monetary Path Payment be adjusted for inflation from the fourth quarter, 2002, to the date of disbursement to The Trust using the Index.

1.5 The Project Owner shall establish a Letter of Credit in the amount of $___________ in favor of The Trust, in the form attached as Appendix B to this Agreement. The effective date of the Letter of Credit shall be __________, 200___. The Trust shall be entitled to draw the entire amount of the Offset Funds secured by the Letter of Credit. The Project Owner shall pay the costs of establishing and maintaining the Letter of Credit and shall pay any transaction fees assessed by the issuer of the Letter of Credit.

1.6 The Trust shall have the right to draw Offset Funds upon execution of a letter of intent to acquire an offset project. At the sole discretion of The Trust, the amount of Offset Funds drawn may correspond to the entire amount of Offset Funds available. The Trust may request less than the entire amount of the Offset Funds, but in no case
shall the cumulative amount of all requests exceed the total Monetary Path Payment Requirement, as adjusted for inflation.

2. Year One True-Up Base-Load Monetary Path Payment and Year One True-Up Power Augmentation Monetary Path Payment.

2.1 The Project Owner shall, within 30 days of filing its Year One Test reports to Council, calculate the Year One True-Up Base-Load Monetary Path Payment, if any, and the Year One True-Up Power Augmentation Monetary Path Payment, if any, as required by Section D.15 of the Site Certificate. The Project Owner shall submit these calculations to the Oregon Office of Energy for verification, as required by Section D.15 of the Site Certificate.

2.2 Both the Year One True-Up Base-Load Monetary Path Payment and Year One True-Up Power Augmentation Monetary Path Payment, if any, shall be adjusted for 2002 dollars from the calendar quarter of the Site Certificate approval to the Disbursement Date using the Index.

2.3 If any Year One True-Up Base-Load Monetary Path Payment and/or Year One True-Up Power Augmentation Monetary Path Payment is due, the Project Owner shall pay this amount directly to The Trust within 30 days of filing its Year One Test report to the Council.

2.4 In no case shall the calculations of this Section 2 cause the funding for the Initial Base-Load Monetary Path Payment and the Initial Power Augmentation Monetary Path Payment made available to The Trust by the Letter of Credit to diminish.

3. Periodic Five-Year Power Augmentation Monetary Path Payments.

3.1 Each five years after beginning commercial operation, the Project Owner shall report the annual average hours of usage of power augmentation to the Office as required by Section D.15 of the Site Certificate.

3.2 If the Office of Energy determines that there are excess emissions for the five-year report period, the Office will specify the amount of Selection and Contracting Funds and Offset Funds that the Project Owner shall make available to The Trust. Each Periodic Five-Year Power Augmentation Monetary Path Payment, if any, shall be adjusted for inflation from fourth quarter, 2002, to the Disbursement Date using the Index.

3.3 For any Periodic Five-Year Power Augmentation Monetary Path Payment, the Selection and Contracting Funds shall equal 20 percent of the value of any Offset Funds up to the first $250,000 (in 2002 dollars) and 4.286 percent of the value of any Offset Funds in excess of $250,000 (in 2002 dollars).
3.4 The Project Owner shall disburse to The Trust the specified amount of any Periodic Five-Year Monetary Path Payment within 30 days of its notification by the Office of the amount that the Project Owner owes.

4. **Undertaking by The Trust.**

4.1 The Trust shall use the Initial Base-Load Monetary Path Payment and Initial Power Augmentation Monetary Path Payment, as well as any Year One True-Up Base-Load Monetary Path Payment, Year One True-Up Power Augmentation Monetary Path Payment, and/or Periodic Five-Year Power Augmentation Monetary Path Payments in accordance with OAR 345-024-0710.

4.2 With respect to the Offset Funds portions of any Initial Base-Load Monetary Path Payment, Initial Power Augmentation Monetary Path Payment, Year One Base-Load Monetary Path Payment, Year One Power Augmentation Monetary Path Payment, and/or Periodic Five-Year Power Augmentation Monetary Path Payments, The Trust shall spend at least 80 percent of the Offset Funds for contracts to implement offsets, and may use up to 20 percent of the Offset Funds for monitoring, evaluation, administration, and enforcement of contracts to implement offsets.

4.3 The Selection and Contracting Funds portions of any Initial Base-Load Monetary Path Payment, Initial Power Augmentation Monetary Path Payment, Year One Base-Load Monetary Path Payment, Year One Power Augmentation Monetary Path Payment, and/or Periodic Five-Year Power Augmentation Monetary Path Payments shall compensate The Trust for its costs of selecting offsets and contracting for the implementation of offsets and administrative costs related to operating The Trust as a qualified organization.

4.4 The Trust shall use its best efforts to remain a qualified organization, as defined in OAR 345-001-0010(45), until The Trust has used all funds received from the Project Owner.

4.5 The Trust shall notify the Project Owner of its intent to draw on the Letter of Credit at least one week before making a draw.

5. **Limited Obligation of Project Owner.**

The Trust acknowledges that, pursuant to OAR 345-024-0710(3), that the Project Owner and the Project shall have no obligation with regard to offsets for the Project other than to make available to The Trust the total amount of the monetary path payments.

6. **Limited Participation by Project Owner in The Trust Decision Making.**

The Project Owner shall appoint one nonvoting member to the Board of Directors of The Trust for a term lasting until The Trust has completed the contracting for the
offset funds provided by the Project Owner. The Project Owner shall have no approval rights over The Trust’s offset contracts, disbursement of Offset Funds, or other day-to-day operations of The Trust.

7. Project Owner Agreement to Indemnify and Hold The Trust Harmless.

The Project Owner agrees to defend, hold harmless and indemnify The Trust from and against any and all claims, costs, liabilities, and expenses of any nature whatsoever, including reasonable attorneys' fees, resulting from or arising out of any failure by the Project Owner to make any payments required by this Agreement, or to establish the Letter of Credit described in Section 1.5 in a timely manner;

Provided, that the maximum amount of the Project Owner's liability to The Trust for claims, costs, liabilities and expenses, including attorneys' fees, arising out of the failure to make a payment or establish the Letter of Credit required by this Agreement in a timely manner shall not exceed twice the differential between the amount payable to The Trust on a particular date and the amount actually paid or made available to The Trust on or before that date. Further provided, The Trust must make reasonable efforts to mitigate any losses, liabilities or expenses for which it seeks indemnification from the Project Owner.


8.1 Governing Law: This Agreement shall be governed by and construed in accordance with the laws of the State of Oregon. Any ambiguity that may arise under this Agreement shall be given a fair and reasonable construction in accordance with the intention of the parties and without regard to which party caused or is deemed to have caused such ambiguity to exist.

8.2 Amendments and Waivers: This Agreement may not be modified, supplemented, altered or amended, nor any provision hereof or rights hereunder be waived, except by an instrument in writing designated as an amendment of or waiver under this Agreement and signed by both parties. The waiver of any particular breach or default hereunder shall not constitute a waiver of any other breach or default. Failure or delay by any party to enforce any provision of this Agreement shall not in any way be construed as a waiver of such provision, nor shall it prevent such party from thereafter enforcing each and every provision of this Agreement.

8.3 Entire Agreement: This Agreement constitutes the entire agreement between the parties hereto as to the matters set forth herein, and all prior proposals, commitments, understandings and agreements, whether oral or in writing, as to such matters are superseded by this Agreement.

8.4 Assignment: The rights of the Project Owner under this Agreement may be assumed by any entity that acquires an ownership interest in the Project. Upon such assumption, such entity shall be deemed to be a party to this Agreement. The Trust may not assign this Agreement without the prior consent of the Project Owner and
Council; provided that, if the proposed assignee is a “qualified organization” as
defined in OAR 345-001-0010(45), the Project Owner shall not unreasonably
withhold such consent.

8.5 Third-Party Beneficiaries: Nothing in this Agreement, whether express or implied, is
intended to confer any rights or remedies on any persons other than the parties hereto
and their respective authorized successors and permitted assigns.

IN WITNESS WHEREOF, the parties have caused this Memorandum of Understanding to be
executed by their respective duly authorized representatives, as of the day and year first above
written.

PORTLAND GENERAL ELECTRIC COMPANY      THE CLIMATE TRUST

By:_________________________              By:_________________________

Name:_________________________            Name:_________________________

Title:_________________________             Title:_________________________

Date:_________________________             Date:_________________________

APPENDIX A: CALCULATION OF INITIAL BASE-LOAD AND POWER AUGMENTATION MONETARY
PATH PAYMENT REQUIREMENT [NOT INCLUDED IN SITE CERTIFICATE]

APPENDIX B: FORM OF LETTER OF CREDIT
APPENDIX B TO MEMORANDUM OF UNDERSTANDING  
[FORM OF CLIMATE TRUST LETTER OF CREDIT]

[If a bond is used, the form of the bond shall be substantially in the form of the letter of credit.]

[Date]

BENEFICIARY:
The Climate Trust
516 SE Morrison Street, Suite 300
Portland, OR  97214
Attn:  Mike Burnett, Executive Director

IRREVOCABLE LETTER OF CREDIT NO. ________

At the request and for the account of _______, we hereby issue in your favor our
Irrevocable Letter of Credit No. _____ (this “Letter of Credit”) for U.S. $______ (the “Stated
Amount”).

We are informed that this Letter of Credit is issued to you pursuant to the Site Certificate
for the Port Westward Generating Project, dated November 8, 2002.

Subject to the provisions herein, funds under this Letter of Credit are available against
presentation of this Letter of Credit and your draft drawn at sight and marked “Drawn on
_______ Letter of Credit No. ________,” accompanied by a written certificate in the form of
Annex A hereto with the blanks duly completed and purportedly signed by your Executive
Director and dated as of even date with the draft.

Subject to the provisions herein, we hereby authorize you to draw hereunder in an
amount not to exceed the Stated Amount from the date hereof through our close of business on
the date on which the Stated Amount is reduced to zero by a drawing hereunder.

Partial drawings are permitted under this Letter of Credit. The amount available to be
drawn under this Letter of Credit shall be automatically reduced by the amount of any drawings
hereunder. Upon the payment of drawings that in the aggregate equal the Stated Amount, we
shall be fully discharged of our obligation under this Letter at Credit and we shall not thereafter
be obligated to make any further payments under this Letter of Credit.

Presentation of this Letter of Credit, such draft and such certificate shall be made at
______, by physical delivery of such documents to such office. ______ will accept physical
delivery of such documents either by hand delivery, by mail, by overnight courier, or by any
other commercially-accepted means of delivery. Our only obligation with regard to a drawing
under this Letter of Credit shall be to examine such draft and certificate and to pay in accordance
therewith if the same conforms to the terms and conditions of this Letter of Credit, and we shall
not be obligated to make any inquiry in connection with the presentation of this Letter of Credit,
the draft and the certificate.
If any request for payment hereunder is presented in compliance with the terms of this Letter of Credit to us at such address by ___ (local time) on any Business Day, payment will be made at or before _____ (local time) on _____, and if such request is so presented to us ______ (local time) on any Business Day, payment will be made at or before ______.

If a demand for payment made hereunder does not, in any instance, conform to the terms and conditions of this Letter of Credit, we shall give you prompt notice that your demand for payment was not effected in accordance with the terms and conditions of this Letter of Credit, stating the reasons therefore and that we will, upon your instructions, hold any documents at your disposal or return the same to you. Upon being notified that the demand for payment was not effected in conformity with this Letter of Credit, you may attempt to correct any such nonconforming demand to the extent you are able to do so; provided, however, that any draft or document presented to correct such nonconforming demand must be presented on or before the Termination Date.

Communications with respect to this Letter of Credit shall be in writing and shall be addressed to us at ______, specifically referring therein to this Letter of Credit by number.

As used herein, a “Business Day” shall mean any day other than Saturday or Sunday or a day on which banking institutions in the City of __________ are authorized or required by law to close.

Presentation of any certificate hereunder shall be deemed to be authentic if signed by a person purporting to be your Executive Director.

This Letter of Credit and the attached Annex A set forth in full our undertaking, and such undertaking shall not in any way be modified, amended, amplified, or limited by reference to any document, instrument or agreement referred to in this Letter of Credit, except only the certificates referred to herein, and any such reference shall not be deemed to incorporate herein by reference any document, instrument or agreement except for such certificates.

___________ hereby engages solely with The Climate Trust that drafts drawn hereunder and in compliance with the terms of this Letter of Credit will be duly honored upon presentation to us by our prompt payment to you of the amount specified in the certificate accompanying such draft.

This Letter of Credit and the attached Annex A shall be subject to the provisions (to the extent that such provisions are not inconsistent with this Letter of Credit) of the Uniform Customs and Practices for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500. To the extent that the provisions of this Letter of Credit are not covered by such Uniform Customs and Practices, this Letter of Credit shall be governed by and enforced and construed in accordance with the laws of the State of Oregon.
[LETTERHEAD OF THE CLIMATE TRUST]

DRAW CERTIFICATE

IRREVOCABLE LETTER OF CREDIT NO.

The undersigned, the Executive Director of The Climate Trust (the “Beneficiary”) hereby certifies to _______ (the “Issuing Bank”) with reference to the Irrevocable Letter of Credit No. ___________ (the “Letter of Credit”) issued by the Issuing Bank in favor of the Beneficiary (any capitalized term used herein and not otherwise defined shall have the respective meaning set forth in the Letter of Credit) that:

1. The Beneficiary is making a drawing under the Letter of Credit pursuant to the Memorandum of Understanding dated ________, 200__, between The Climate Trust and Portland General Electric Company (the “MOU”) in the amount of $__________ (the “Drawing Amount”);

2. The Drawing Amount hereunder does not exceed the Stated Amount reduced by all previous drawings under the Letter of Credit; and

3. The Drawing Amount is not more than the amount that the Climate Trust is entitled to draw at this time under the terms of the MOU.

The Beneficiary hereby irrevocably authorizes and directs the Issuing Bank to pay the Drawing Amount in immediately available funds to The Climate Trust, Attention: Executive Director, by sending such payment by wire transfer to:

_________________________

IN WITNESS WHEREOF, the Beneficiary has executed and delivered this certificate as of the ____ day of ________, ___.

THE CLIMATE TRUST, as Beneficiary

By: ____________________________

Name:__________________________

Executive Director
WATER POLLUTION CONTROL FACILITIES PERMIT

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue, Suite 400, Portland, OR 97201
Telephone: (503) 229-5263

Issued pursuant to ORS 468B.050

ISSUED TO:
Portland General Electric
121 SW Salmon Street
Portland, Oregon 97204

SOURCES COVERED BY THIS PERMIT:

<table>
<thead>
<tr>
<th>Type of Waste</th>
<th>System</th>
<th>Method of Treatment/Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Sewage</td>
<td>001</td>
<td>Bottomless sand filter</td>
</tr>
</tbody>
</table>

SYSTEM TYPE AND LOCATION:
On-Site Sewage Treatment and Disposal

Port Westward Generating Plant
80997 Kallunki Road
City/Town: Clatskanie

Located in: Sect. 15&22, T8N,R4W
Latitude: 46.1800
Longitude: -123.1717

COUNTY: Columbia

Issued in response to Application No. 986243.
This permit is issued based on the Final Order in the Matter of the Application for a Site Certificate for the Port Westward Generating Project in lieu of a Land Use Compatibility Statement.

Robert P. Baumgartner, Water Quality Manager
Northwest Region
Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule A - Waste Disposal Limitations</td>
<td>2</td>
</tr>
<tr>
<td>Schedule B - Minimum Monitoring and Reporting Requirements</td>
<td>3</td>
</tr>
<tr>
<td>Schedule C - (Not Applicable)</td>
<td>-</td>
</tr>
<tr>
<td>Schedule D - Special Conditions</td>
<td>4</td>
</tr>
<tr>
<td>Schedule E - Not Applicable</td>
<td>-</td>
</tr>
<tr>
<td>Schedule F - General Conditions</td>
<td>5-8</td>
</tr>
</tbody>
</table>

Discharge of untreated or partially treated sewage or septic tank effluent directly or indirectly onto the ground surface or into surface waters constitutes a public health hazard and is prohibited. This permit does not relieve the permittee from responsibility for compliance with any other applicable federal, state, or local law, rule or standard.
SCHEDULE A

Waste Disposal Limitations

1. The permittee is authorized to operate and maintain a domestic sewage treatment and disposal facility consisting of a bottomless sand filter unit with final disposal to the soil beneath the filter and in compliance with the following conditions:

   a) The average daily sewage flow to the SAND FILTER should be approximately fifty percent (50%) of the maximum daily or peak flow to the treatment system. The maximum peak daily flow shall not exceed the following unless otherwise approved by the Department:

<table>
<thead>
<tr>
<th>System</th>
<th>Maximum Daily Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1200 gpd</td>
</tr>
</tbody>
</table>

   b) The influent to the treatment unit shall not exceed the following maximum concentrations:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD5</td>
<td>300 mg/l</td>
</tr>
<tr>
<td>Greases and Oil</td>
<td>25 mg/l</td>
</tr>
<tr>
<td>TSS</td>
<td>150 mg/l</td>
</tr>
<tr>
<td>TKN</td>
<td>150 mg/l</td>
</tr>
</tbody>
</table>

c) The effluent from the treatment unit shall not exceed the following maximum concentrations:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD5</td>
<td>20 mg/l</td>
</tr>
<tr>
<td>TSS</td>
<td>20 mg/l</td>
</tr>
</tbody>
</table>

d) No discharge to surface waters is permitted. All wastewater shall be distributed into the soil beneath the filter so as to prevent:

   1) Surfacing of wastewater on the ground surface, surface runoff or subsurface drainage through drainage tile.

   2) The creation of odors, fly and mosquito breeding and other nuisance conditions.

   3) The overloading of land with nutrients or organics.

   4) Impairment of existing or potential beneficial uses of groundwater.

2. No cooling water, air conditioner water, water softener brine, groundwater, oil, hazardous materials, roof drainage, storm water runoff, or other aqueous or non-aqueous substances which are, in the judgment of the Department, detrimental to the performance of the system or to groundwater, shall be discharged into the sewage treatment system, unless specifically approved in writing by the Department.

3. No Activities shall be conducted that could cause an adverse impact on existing or potential beneficial uses of groundwater.
SCHEDULE B

Minimum Monitoring and Reporting Requirements

1. System Monitoring Requirements
   The permittee shall monitor the operation and efficiency of all treatment and disposal facilities. Sampling and measurements taken as required herein shall be representative of the nature of the wastewater, and shall be taken at peak usage during operation of the system. Unless otherwise agreed to in writing by the Department of Environmental Quality, data collected, and submitted shall include but not necessarily be limited to the following parameters and minimum frequencies:

   a. **Influent to the Treatment Unit**

      | Item or Parameter  | Minimum Frequency | Type of Sample                          |
      |--------------------|-------------------|-----------------------------------------|
      | Sewage Flow, GPD  | Monthly Average   | Measurement or calculation based on meter readings |
      | Flow Meter Calibration | Annually       | Verification                            |

   b. **Effluent from the Sand filter**;

      | Item or Parameter | Minimum Frequency | Type of Sample |
      |------------------|-------------------|----------------|
      | BOD₅             | Semi-annually *   | Grab           |
      | TSS              | Semi-annually *   | Grab           |
      | NH₃-N            | Annually *        | Grab           |
      | NO₃+ NO₂-N       | Annually *        | Grab           |
      | TKN              | Annually *        | Grab           |

   *Upon receipt of a five year contract in place with a maintenance entity acceptable to the Department, the Department will reduce sampling frequency during the first five years of the permit to one time, to be done during the fifth year of the permit. The Department may allow some reduction of the sampling following the fifth year of the permit if the second five year contract is in place after the end of the first five year contract.

c. **Operations and Maintenance Activities**
   The permittee shall record in writing all observations of operation and maintenance activities as required in the Department approved Operation and Maintenance Plan on a monthly basis.

d. **Solids Management**
   The permittee shall maintain a record of the pumping dates and quantity in gallons, of solids/wastewater pumped, and what licensed sewage disposal service company pumped the solids/wastewater, as well as the final disposal location and transfer locale (if applicable).

2. Reporting Procedures
   Monitoring, maintenance practices, solids handling, and results shall be reported on Department approved forms. The reporting period is the calendar year. Reports must be submitted to the DEQ office listed on the face page of this permit by **January 15 following the reporting period**.
SCHEDULE D

Special Conditions

1. The permittee shall maintain on file a complete Operation and Maintenance (O&M) Plan approved by the Department. The permittee shall operate, manage and implement preventative maintenance practices or corrections at the frequencies required in the Department approved O&M Plan. Any changes to the plan must be approved by the Department.

2. In the event that a concentration limit, as specified in Schedule A, to the soil beneath the filter is exceeded, the permittee shall within fourteen (14) working days of receipt of the analytical results:
   a) Report the results to the Department;
   b) Resample to verify the results; and
   c) In the event that the resampling confirms a concentration limit violation, within thirty (30) days of confirmation, the permittee shall submit to the Department a corrective action plan to reduce the waste strength so that the concentration limits are not violated. Upon Department approval, the plan shall be implemented by the permittee.

3. The permittee shall contract with a licensed sewage disposal service as defined in Oregon Administrative Rule 340-71-100 for management of all septage/sludge.

4. All bench sheets, laboratory analysis sheets, and other records to support the data reported on the Discharge Monitoring Report (DMR) shall be prepared in ink and shall be kept on file for a period of at least 3 years from the date of the sample, measurement, report or application. Pencil entries or liquid paper corrections are prohibited and shall be considered Class I violations of the permit. Changes to any supporting records that may be required to correct the original data may be made by lining through the original data. The date of the change and the initials of the individual making the change shall be recorded in ink adjacent to the change.

5. The sand filter area including replacement area shall not be subject to activities that would, in the opinion of the Department, adversely affect the soil or the functioning of the system. This includes, but is not limited to, vehicular or animal traffic, filling or cutting, covering the area with asphalt or concrete, or subjecting the area to excessive saturation.

6. The permittee shall not be required to perform a formal hydrogeologic characterization or preliminary groundwater monitoring during the term of this permit provided that the facilities are operated in accordance with the permit conditions, and there are no apparent adverse groundwater quality impacts (complaints or other indirect evidence) resulting from the facility’s operation. If warranted, the Department may evaluate the need for or require a full assessment of the facility’s impact on groundwater quality and if necessary may reopen this permit to include groundwater monitoring parameters.

7. An adequate contingency plan for prevention and handling of spills and unplanned discharges shall be in force at all times. The permittee shall immediately notify the DEQ office listed on the face page of this permit and the local County Health Department of any occurrence of surfacing sewage. If a spill does occur that reaches or threatens to reach public waters, the permittee shall immediately notify Oregon Emergency Response (OER) at 1-800-452-0311.
SCHEDULE F

General Conditions

SECTION A. - STANDARD CONDITIONS

1. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws, or regulations.

2. Liability

The Department of Environmental Quality, its officers, agents, or employees shall not sustain any liability on account of the issuance of this permit or on account of the construction or maintenance of facilities because of this permit.

3. Permit Actions

After notice by the Department, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including but not limited to the following:

   a. Violation of any term or condition of this permit, any applicable rule or statute, or any order of the Commission;

   b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.

4. Transfer of Permit

This permit shall not be transferred to a third party without prior written approval from the Department. Such approval may be granted by the Department where the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of this permit and the rules of the Commission. A transfer application and filing fee must be submitted to the Department.

5. Permit Fees

The permittee shall pay the fees required to be filed with this permit application and to be paid annually for permit compliance determination as outlined in the Oregon Administrative Rules.

SECTION B. - OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times maintain in good working order and properly operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

2. Standard Operation and Maintenance

All waste collection, control, treatment, and disposal facilities shall be operated in a manner consistent with the following:
a. At all times, all facilities shall be operated as efficiently as possible and in a manner which will prevent discharges, health hazards, and nuisance conditions.

b. All screenings, grit, and sludge shall be disposed of in a manner approved by the Department such as to prevent any pollutant from such materials from reaching any waters of the state, creating a public health hazard, or causing a nuisance condition.

c. Bypassing of untreated waste is generally prohibited. No bypassing shall occur without prior written permission from the Department except where unavoidable to prevent loss of life, personal injury, or severe property damage.

3. Noncompliance and Notification Procedures

In the event the permittee is unable to comply with all the conditions of this permit because of surfacing sewage, a breakdown of equipment or facilities, an accident caused by human error or negligence, or any other cause such as an act of nature, the permittee shall:

a. Immediately take action to stop, contain, and clean up the unauthorized discharges and correct the problem.

b. Immediately notify the Department's Regional office, so that an investigation can be made to evaluate the impact and the corrective actions taken and determine additional action that must be taken.

c. Within 5 days of the time the permittee becomes aware of the circumstances, the permittee shall submit to the Department a detailed written report describing the breakdown, the actual quantity and quality of resulting waste discharges, corrective action taken, steps taken to prevent a recurrence, and any other pertinent information.

Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or the resulting liability for failure to comply.

4. Wastewater System Personnel

The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and monitoring requirements to assure continuous compliance with the conditions of this permit.

SECTION C. - MONITORING AND RECORDS

1. Inspection and Entry

The permittee shall, at all reasonable times, allow authorized representatives of the Department of Environmental Quality to:

a. Enter upon the permittee's premises where a waste source or disposal system is located or where any records are required to be kept under the terms and conditions of this permit;

b. Have access to and copy any records required to be kept under the terms and conditions of this permit;

c. Inspect any treatment or disposal system, practices, operations, monitoring equipment, or monitoring method regulated or required by this permit; or
d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

2. **Averaging of Measurements**

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean.

3. **Retention of Records**

The permittee shall retain records of all monitoring and maintenance information, including all calibrations, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. The Director may extend this period at any time.

**SECTION D. - REPORTING REQUIREMENTS**

1. **Plan Submittal**

Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, no construction, installation or modification of disposal systems, treatment works, or sewerage systems shall be commenced until plans and specifications are submitted to and approved in writing by the Department. All construction, installation or modification shall be in strict conformance with the Department's written approval of the plans.

2. **Change in Discharge**

Whenever a facility expansion, production increase, or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued.

3. **Signatory Requirements**

All applications, reports or information submitted to the Department shall be signed and certified by the official applicant of record (owner) or authorized designee.
SECTION E. DEFINITIONS

1. BOD$_5$ means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. FC means fecal coliform bacteria.
4. NH$_3$-N means Ammonia Nitrogen.
5. NO$_3$-N means Nitrate Nitrogen.
6. NO$_2$-N means Nitrite Nitrogen.
7. TKN means Total Kjeldahl Nitrogen.
8. Cl means Chloride.
9. TN means Total Nitrogen.
10. mg/L means milligrams per liter.
11. µg/L means micrograms per liter.
12. kg means kilograms.
13. GPD means gallons per day.
14. MGD means million gallons per day.
15. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
16. Total residual chlorine means combined chlorine forms plus free residual chlorine.
17. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
18. Composite sample means a combination of samples collected, generally at equal intervals over a 24-hour period, and apportioned according to the volume of flow at the time of sampling.
19. Week means a calendar week of Sunday through Saturday.
20. Month means a calendar month.
21. Quarter means January through March, April through June, July through September, or October through December.
**Introduction**

Under Oregon Administrative Rule Chapter 340 Division 71 Section 130 (15) [OAR 340-71-130(15)], any person proposing a sand filter system to serve a commercial facility shall obtain a WPCF permit from the Department of Environmental Quality.

This area was originally evaluated for on-site sewage disposal by Columbia County onsite staff. On February 8, 2002, the Department confirmed the evaluation of this site in relation to the proposed PGE facility.

**Facility Description**

<table>
<thead>
<tr>
<th>Total Design Flow of Facility</th>
<th>1,200 Gallons per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Systems</td>
<td>One</td>
</tr>
</tbody>
</table>

**System #1**

<table>
<thead>
<tr>
<th>Date Constructed</th>
<th>To be constructed in 2002 or later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Capacity</td>
<td>1,200 gpd</td>
</tr>
<tr>
<td>Facilities Served</td>
<td>Sanitary facilities for the Port Westward Generating plant, bathrooms &amp; sinks.</td>
</tr>
<tr>
<td>Type of Treatment</td>
<td>Bottomless Sand filter</td>
</tr>
<tr>
<td>Type of Soils</td>
<td>Sand</td>
</tr>
</tbody>
</table>

Comments: Latitude and Longitude for the test pit area is 46° 10'.41", -123° 10'.16".
**Groundwater**
As part of this permit evaluation, a groundwater prioritization screening was done. The results of this screening is as follows:

For new and existing drainfield systems (confirm all statements given as true or false):

1. Based on the depth to the water table underline the applicable statement and confirm it as either true or false:
   - A. Depth to water table is less than 100 feet: System design flow is less than 5,000 gpd. True
   - B. Depth to water table is between 100 and 300 feet; system design flow is less than 10,000 gpd. True
   - C. Depth to water table is greater than 300 feet; system design flow is less than 15,000 gpd. True

2. System is not located in Groundwater Management Area where an identified contaminant of concern may be associated with domestic wastewater. True

3. Drainfield is not located within:
   - 1000 feet of an existing public or private drinking water supply well or a designated Wellhead Protection Area.
   - And, all land within 1000 feet of the system is zoned such that no drinking water wells are likely to be installed in the future. False

4. No industrial sources discharge to the system True

5. There are no exceptional situations under which the system may require further groundwater review to determine the likelihood of an adverse impact. True

If all answers are true, then no further information is needed.

If any answers are false, has additional information been gathered to satisfy the permit writer and groundwater reviewer that the facility actually has a low potential to adversely impact groundwater? **Yes**  
If yes, provide details.

All domestic wells are over the 100 foot setback required by OAR 340-71. In fact there are no wells within ½ mile of the project. The initial groundwater in this area is essentially the Columbia River and can be expected to discharge to the river.

The projected sewage flow from this facility is 1,200 gpd, equivalent to 2.6 residential homes located on a parcel of 19 acres. Sand filter effluent is expected to produce 10 mg/l BOD, 10 mg/l TSS, reduce bacteria counts by 98 to 99% and lowers total nitrogen by approximately 50%. The site meets Division 71 Onsite rules criteria for approval of a bottomless sand filter. The proposed flows will be low. The potential to impact the groundwater is negligible.

**Compliance History**
This is a new permit. There is no compliance history.
PERMIT DISCUSSION

Schedule A – Waste Disposal Limitations
Schedule A contains the following limitations for each system:
  x System Maximum Daily flow
  x Influent maximum concentrations (Sand Filters and RGFs only)
  x Effluent maximum concentrations
  x Prohibition of discharges to surface waters
  x Prohibition of discharge of detrimental substances to system
  x Groundwater restrictions.

Schedule B – Minimum Monitoring and Reporting Requirements
Monitoring parameters and frequencies are based on the Department monitoring matrix. Any modifications are listed as follows:

If the permittee enters into a five year maintenance contract with an acceptable entity, the Department will reduce sampling requirements to one time during that period, at the fifth year of the permit. Further reduction in sampling can be allowed after the fifth year of the permit if the permittee enters into another five year contract.

Schedule D – Special Conditions
Schedule D contains the following special conditions:
  x Operations and Maintenance Requirements
  x Septage/sludge management
  x Maintenance of vegetation in the drainfield area
  x Prohibition of activities that would adversely affect the soil or functioning of the system.
  x Contingency plan requirement
  x Groundwater Requirements

Schedule F – General Conditions
This Schedule contains general conditions that are applicable to all WPCF permits in Oregon.
IS AUTHORIZED IN ACCORDANCE WITH ORS 196.800 TO 196.990 TO PERFORM THE OPERATIONS DESCRIBED IN THE REMOVAL/FILL APPLICATION SUBMITTED AS PART OF THE APPLICATION FOR A SITE CERTIFICATE FOR THE PORT WESTWARD GENERATING PROJECT, FILED APRIL 11, 2002, SUBJECT TO THE SPECIAL CONDITIONS LISTED ON ATTACHMENT A AND TO THE FOLLOWING GENERAL CONDITIONS:

1. This permit does not authorize trespass on the lands of others. The permit holder shall obtain all necessary access permits or rights-of-way before entering lands owned by another.

2. This permit does not authorize any work that is not in compliance with local zoning or other local, state, or federal regulation pertaining to the operations authorized by this permit. The permit holder is responsible for obtaining the necessary approvals and permits before proceeding under this permit.

3. All work done under this permit must comply with Oregon Administrative Rules, Chapter 340; Standards of Quality for Public Waters of Oregon. Specific water quality provisions for this project are set forth on Attachment A.

4. Violations of the terms and conditions of this permit are subject to administrative and/or legal action which may result in revocation of the permit or damages. The permit holder is responsible for the activities of all contractors or other operators involved in work done at the site or under this permit.

5. A copy of the permit shall be available at the work site whenever operations authorized by the permit are being conducted.

6. Employees of the Division of State Lands and all duly authorized representatives of the Director shall be permitted access to the project area at all reasonable times for the purpose of inspecting work performed under this permit.

7. The Division of State Lands issues this permit pursuant to the Site Certificate for the Port Westward Generating Project, issued by the Oregon Energy Facility Siting Council, November 8, 2002.

8. In issuing this permit, the Division of State Lands makes no representation regarding the quality or adequacy of the permitted project design, materials, construction, or maintenance, except to approve the project’s design and materials, as set forth in the permit application, as satisfying the resource protection, scenic, safety, recreation, and public access requirements of ORS Chapters 196, 390 and related administrative rules.

9. Permittee shall defend and hold harmless the State of Oregon, and its officers, agents, and employees from any claim, suit, or action for property damage or personal injury or death arising out of the design, material, construction, or maintenance of the permitted improvements.

NOTICE: If removal is from state-owned submerged and submersible land, the applicant must comply with leasing and royalty provisions of ORS 274.530. If the project involves creation of new lands by filling on state-owned submerged or submersible lands, you must comply with ORS 274.905 - 274.940. This permit does not relieve the permittee of an obligation to secure appropriate leases from the Division of State Lands, to conduct activities on state-owned submerged or submersible lands. Failure to comply with these requirements may result in civil or criminal liability. For more information about these requirements, please contact the Division of State Lands, 503-378-3805.

Lori Warner, Manager
Western Region Field Operations
Oregon Division of State Lands

Authorized Signature

Date Issued

ATTACHMENT C

FINAL ORDER, PORT WESTWARD GENERATING PROJECT
ATTACHMENT A to Removal/Fill Permit

Special Conditions for Removal/Fill Permit No. 25248-FP. PLEASE READ AND BECOME FAMILIAR WITH CONDITIONS OF YOUR PERMIT. This project may be site inspected by the Division of State Lands as part of our monitoring program. The Division has the right to stop or modify the project at any time if you are not in compliance with these conditions. A copy of this permit shall be available at the work site whenever authorized operations are being conducted.

1. This permit authorizes the placement of up to 3,000 cubic yards of gravel sand and silt and removal of up to 4,500 cubic yards of silt and clay in T8N, R4W, Sections 15 and 22, Tax Lots 3 and 4 in wetlands and Columbia River, Columbia County for power generation facility, transmission line, and water intake station upgrades, as outlined in the attached permit application, map and drawings, dated April 11, 2002 (Application). Removal-fill activity for wastewater discharge line and river outfall is specifically not authorized by this permit.

2. This permit authorizes removal and fill activities necessary to complete the required compensatory mitigation.

3. TURBIDITY/EROSION CONTROLS. The authorized work shall not cause turbidity of affected waters to exceed 10% over natural background turbidity 100 feet downstream of the fill point. For projects proposed in areas with no discernible gradient break (gradient of 2% or less), monitoring shall take place at 4 hour intervals and the turbidity standard may be exceeded for a maximum of one monitoring interval per 24 hour work period provided all practicable control measures have been implemented. This turbidity standard exceedance interval applies only to coastal lowlands and floodplains, valley bottoms and other low-lying and/or relatively flat land.

For projects in all other areas, the turbidity standard can be exceeded for a maximum of 2 hours (limited duration) provided all practicable erosion control measures have been implemented. These projects may also be subject to additional reporting requirements.

Turbidity shall be monitored during active in-water work periods. Monitoring points shall be at an undisturbed site (representative background) 100 feet upstream from the turbidity causing activity (i.e., fill or discharge point), 100 feet downstream from the fill point, and at the point of fill. A turbidimeter is recommended, however, visual gauging is acceptable. Turbidity that is visible over background is considered an exceedance of the standard.

Practicable erosion control measures which shall be implemented, as appropriate, include but are not limited to the following:
a. Place fill in the water using methods that avoid disturbance to the maximum practicable extent (e.g. placing fill with a machine rather than end-dumping from a truck).
b. Prevent all construction materials and debris from entering waterway;
c. Use filter bags, sediment fences, sediment traps or catch basins, silt curtains, leave strips or berms, Jersey barriers, sand bags, or other measures sufficient to prevent movement of soil;
d. Use impervious materials to cover stockpiles when unattended or during rain event;
e. Erosion control measures shall be inspected and maintained daily to ensure their continued effectiveness;
f. No heavy machinery in a wetland or other waterway;
g. Use a gravel staging area and construction access;
h. Fence off planted areas to protect from disturbance and/or erosion; and
i. Flag or fence off wetlands adjacent to the construction area.

4. Erosion control measures shall be maintained as necessary to ensure their continued effectiveness, until soils become stabilized. All erosion control structures shall be removed when project is complete and soils are stabilized and vegetated.

5. Fill and removal activities in the Columbia River shall be conducted between November 1 and February 28, unless otherwise coordinated with ODFW and approved in writing by ODSL.

6. Petroleum products, chemicals, or other deleterious materials shall not be allowed to enter waters of the state.

7. No fresh concrete shall be allowed to come into contact with waters of the state unless otherwise coordinated with ODFW and approved in writing by ODSL.

8. Waste materials and spoils shall be placed in a stable upland location above the top of bank and shall be suitably stabilized to prevent erosion.

9. If any archaeological resources and/or artifacts are uncovered during excavation, all construction activity shall immediately cease. The State Historic Preservation Office shall be contacted (phone: 503-378-4168).

10. The Division of State Lands retains the authority to temporarily halt or modify the project within the scope of the site certificate issued by the Energy Facility Siting Council in case of unforeseen damage to natural resources.
11. The permittee is responsible for carrying-out the terms and conditions of this permit unless the permit is transferred to another party using forms provided by the Division.

**Compensatory Wetland Mitigation**

The following conditions apply to the actions described in the Application, Appendix J-3, Wetland Mitigation Plan, dated May 2002 (Mitigation Plan). The issuance of this permit is contingent upon the successful compensatory wetland mitigation for the loss of 0.41 acres of wetlands resulting from power generating facility development and up to 0.02 acres of wetlands resulting from construction of transmission towers for a total of 0.43 acres impact.

12. On-site compensatory mitigation for the loss of 0.43 acres of palustrine emergent, seasonally saturated (PEMc) and scrub-shrub (PSSc), riverine flow-through (RFT)/depressional wetland, shall consist of 1.5 acres of enhancement to PEMc, PSSc, palustrine forested (PFO), RFT/depressional wetland.

13. Mitigation for temporary impacts (0.03 acres) resulting from water supply line installation shall consist of rehabilitation to original ground contours and re-vegetation with appropriate wetland seed mix upon re-establishment of original contours. Similar rehabilitation shall also be provided for any temporary wetland impacts associated with transmission towers installation (e.g., equipment ruts, tracks). During trenching or excavation, the top layer of soil shall be separated from the rest of the excavated material and put back on top when the trench or pit is back-filled. If the native underlying soils are not used as bedding material, and a coarser, non-native soil or other material is used, preventative measures such as clay or concrete plugs shall be used so that underground hydraulic piping does not occur and de-water the site and adjacent wetlands. Failure to comply with this condition may result in additional compensatory mitigation.

14. Mitigation shall be completed prior to or concurrent with the wetland fill project and otherwise consistent with Mitigation Plan, Section 10, Vegetation Management.

15. The wetland enhancement area shall be graded to the elevations described in Mitigation Plan, Section 10 and Figures J-3.5 and J-3.6.

16. Prior to any site grading, the surveyed boundaries of the wetland mitigation area and the avoided wetlands shall be surrounded by silt fencing at all times during construction of the project. There shall be no heavy equipment in this area except during mitigation construction.
17. An as-built survey shall be provided to the Division of State Lands within 60 days of mitigation site grading.

18. The mitigation site shall be planted in types, numbers and zones described in Mitigation Plan, Plant Schedule (Figure J-3.5). No existing trees shall be removed within the wetland mitigation area. Any significant variation in the plant schedule shall be referred to the Division for approval prior to execution. In the event that Cottonwood does not volunteer in the mitigation area in numbers/density consistent with the reference site by the end of the 3rd year, the planting plan shall be supplemented with cottonwood plantings. Proposed numbers shall be provided to the Division for approval prior to execution.

19. Removal or control of invasive, non-native plant species shall be done by means including preliminary site grading, mowing, herbicide application and/or by-hand removal, as appropriate. Livestock grazing shall not be allowed in the mitigation area.

20. The mitigation site shall be irrigated as necessary to avoid water stress for two years after the completion of planting.

21. Large woody debris shall be placed at the mitigation site locations identified in the Mitigation Plan, Figure J-3.6.

**Success Criteria**

To be deemed successful, the mitigation areas shall meet the following success criteria:

22. Cover of planted herbaceous material and desirable native wetland recruits (FAC+ or wetter) in designated PEMc areas shall be at least 80% after the 3rd year (as measured by cover in representative plots) and remain at least 80% for the remainder of the monitoring period.

23. Survival of planted trees and shrubs (by species) shall be at least 80% for the duration of the monitoring period (as measured by total stem counts). Should cottonwood not volunteer into the mitigation area in numbers consistent with the reference site by year 3, remedial action shall be taken in consultation with the Division.

24. There shall be no more than 30 percent cover of non-native species at any time during the monitoring period.
25. Mitigation site micro-topography shall meet grading design per Mitigation Plan, Figures J-3.5 and J-3.6 and including large woody debris placement pursuant to Mitigation Plan, Figure J-3.6.

26. The mitigation site shall exhibit characteristics of PFO/PSS wetland (0.9 acres) and PEMc wetland (0.6 acres) consistent with Cowardin definitions for said wetland types by the end of the monitoring period.

Mitigation Monitoring

27. The permittee shall monitor the mitigation site to determine success for a minimum period of five (5) years. The annual monitoring report is due by December 31 of each year and shall include the following information:

- Permit number, permittee’s name, project name
- Location of mitigation site: describe and show on current map.
- Location of impact site
- Description of all activities that have occurred on the mitigation site during the past year (i.e. grading, re-grading, planting, re-planting, weed eradication, etc.).
- Documentation that success criteria are being met and statements regarding criteria listed in conditions 22 through 26, above.
- Results of hydrologic monitoring to be conducted during early growing season including depth to saturation, extent of inundation and presence of secondary hydrologic indicators in the mitigation area.
- Qualitative comparison/discussion of the mitigation site performance relative to the reference site.
- Photographs from a minimum of three fixed photo-monitoring locations.
- Recommendations for remedial or maintenance actions, as necessary
- Other information necessary or required to document compliance with mitigation plan.

The monitoring period will start when the permittee has demonstrated that hydrology has been established and initial plantings have been accomplished. Failure to submit a monitoring report at the above date may result in an extension of the monitoring period and/or enforcement action.

Contingency

28. In the event that non-native plant cover exceeds 30% at any time during the monitoring period or less than 80% coverage/80% survival occurs in the emergent/shrub-tree area, the permittee shall submit to the Division, for
approval, a contingency plan describing specific actions and timeframes to
return the site to design conditions.

29. Removal of the berm across the existing drainage channel shall only occur
with the prior approval of the Division and shall be based on demonstration of
successful hydrologic conditions and cover of desirable emergent species.

30. The Division retains the authority to extend the mitigation monitoring period
and require corrective action in the event the success criteria are not
accomplished for two consecutive years (without re-planting for failure to
meet survival or cover criteria) within the 5-year monitoring period.

______________, 200___
ATTACHMENT D

Final Order
Port Westward Generating Project

LAND USE STANDARD ANALYSIS
OAR 345-022-0030

I. INTRODUCTION AND OVERVIEW

Under the Energy Facility Siting Council’s (“Council”) Land Use Standard, OAR 345-022-0030, the Council must determine whether the proposed facility complies with the statewide planning goals adopted by the Land Conservation and Development Commission (“LCDC”). The Applicant, Portland General Electric Company (“PGE”), has elected to address this standard by obtaining a land use determination from the Council pursuant to ORS 469.504(1)(b). As is relevant here, this requires the following finding:

(A) The facility complies with applicable substantive criteria from the affected local government’s acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and in effect on the date the application is submitted, and with any Land Conservation and Development Commission administrative rules and goals and any land use statutes directly applicable to the facility under ORS 197.646(3); or

(B) For an energy facility or a related or supporting facility that must be evaluated against the applicable substantive criteria pursuant to subsection (5) of this section, that the proposed facility does not comply with one or more of the applicable substantive criteria but does otherwise comply with the applicable statewide planning goals, or that an exception to any applicable statewide planning goal is justified under subsection (2) of this section. ORS 469.504(1)(b); OAR 345-022-030(2)(b).

The proposed facility, as addressed in this Order and in the site certificate and as described in the Application for Site Certificate (“ASC”), is comprised of an energy facility, natural gas pipeline, water intake pipeline, wastewater discharge pipeline, and electrical transmission line, as well as a temporary construction staging area. The facility is located on land within the land use jurisdiction of Columbia County (“County”). In addition, a portion of the electrical transmission line is located within the land use jurisdiction of the City of Rainier (“City”).

1 ORS 469.504(1)(b)(C) does not apply because the special advisory group has recommended the applicable substantive criteria.
II. DESCRIPTION OF PROPOSED FACILITIES

The proposed energy facility will consist of two combustion turbine generators, two heat recovery steam generators and two steam turbine generators. It will be located about seven miles by road from the City of Clatskanie on about 19 acres of an 852-acre tract leased to PGE and known as the Port Westward Industrial Park. The Port Westward Industrial Park is zoned Resource Industrial Planned Development (“RIPD”).

The energy facility will be fueled by natural gas from the existing Kelso-Beaver (“K-B”) pipeline, which passes within 1,000 feet of the energy facility site. An interconnecting pipeline (about 18 inches in diameter) will be constructed below grade between the existing K-B pipeline and the energy facility. The interconnecting pipeline will be located on the 852-acre tract leased by PGE and, therefore, within the RIPD zone.

Water will be supplied from raw river water drawn from an existing PGE intake structure on Bradbury Slough under an existing Port of St. Helens water permit. The water intake pipeline from the existing intake structure to the energy facility will be located below grade on the 852-acre tract leased by PGE and, therefore, within the RIPD zone.

Process blowdown and cooling system blowdown will be discharged through a proposed Port of St. Helens wastewater discharge system. The wastewater discharge pipeline lateral connecting the energy facility to the Port's wastewater discharge system will be located below grade on the 852-acre tract leased by PGE and, therefore, within the RIPD zone.

Sanitary sewage will be routed to a disposal system consisting of a septic tank and leachfield on the energy facility site.

PGE will also be using an approximately 6-acre construction staging area temporarily during construction. The staging area will be southwest of the existing water intake structure and within the RIPD zone. The area was previously developed and now has a gravel surface. No additional grading or gravel will be necessary. PGE will install lighting and fencing, and may place a construction trailer in the area. The area will be returned to its current condition upon completion of construction.

PGE has requested Council approval to construct either of two alternative transmission line routes. The energy facility will deliver power to the regional power grid at the Bonneville Power Administration’s (“BPA”) Allston Substation near Alston, Oregon (“Allston option”) or at PGE’s Trojan Nuclear Plant near Goble, Oregon (“Trojan option”). The Allston option will require construction of about nine miles of transmission line on new towers within the existing corridor from the Beaver Generating Plant (also located at Port Westward Industrial Park) to the vicinity of the BPA Allston Substation. The existing easement is 250 feet wide. The existing transmission line requires 125 feet. The proposed line will use the remaining 125 feet. The new line will require the placement of new transmission towers, which will carry two 230 kV circuits to accommodate the lines for both this project and the Summit/Westward Project (“Summit”). Summit’s circuits on the transmission line will interconnect to a bay on the east side of the BPA Allston Substation (“Summit interconnection”). The Summit interconnection will require a new corridor in the vicinity of the substation. The entire route of the Allston option is within the land use jurisdiction of Columbia County.
The Trojan option will require construction of about nineteen miles of new transmission line on new towers. The first segment will be the same as that described above with respect to the Allston option. Before reaching the BPA Allston Substation, however, the new line will leave the existing corridor and bypass the BPA Allston Substation. The remainder of the line will require establishment of a new right-of-way between the BPA Allston Substation and Trojan Nuclear Plant, which will be parallel and immediately adjacent to the existing BPA right-of-way, and placement of new transmission towers. Although most of the route of the Trojan option is within Columbia County's land use jurisdiction, about 1.5 miles of the second segment of the Trojan option (i.e. between the BPA Allston Substation and Trojan Nuclear Plant) will be within the City of Rainier's land use jurisdiction.

Under either routing alternative, the transmission line will pass through five land use zones within Columbia County: Resource Industrial Planned Development (RIPD), Primary Agriculture (PA-38), Forest Agriculture (FA-19), Primary Forest (PF-76), and Rural Residential (RR-5). The Trojan option would also pass through the City of Rainier’s Watershed (W) zone.

### III. COLUMBIA COUNTY LAND USE REGULATIONS

The energy facility and the water intake pipeline, wastewater discharge pipeline, gas pipeline, and construction staging area are located entirely within Columbia County's planning jurisdiction. The transmission line is primarily within the County’s planning jurisdiction. As a result, these facilities will be subject to the provisions of the Columbia County Zoning Ordinance (“CCZO”). The applicable regulations are those that were in effect in August 2001, when PGE submitted its ASC.

#### A. RESOURCE INDUSTRIAL PLANNED DEVELOPMENT (RIPD) ZONE

The energy facility and the gas pipeline, water intake pipeline, wastewater discharge pipeline, and construction staging area will be located entirely within the County’s RIPD zone. In addition, the first 1.5 miles of the transmission line corridor under both routing options and about 3,600 feet of the transmission line corridor under the Trojan option (just before it connects to the Trojan Nuclear Plant) will be located within the County’s RIPD zone.

CCZO § 683 provides that:

The following uses may be permitted subject to the conditions imposed for each use:

1. Production, processing, assembling, packaging, or treatment of materials; research and development laboratories; and storage and distribution of services and facilities subject to the following findings:

The proposed energy facility is permitted subject to the prescribed conditions because it is a use that involves the production of electricity through processing a material (natural gas), as well as the distribution of that electricity as a service. The construction staging area is an

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2 PGE has requested approval to locate the new corridor on either the north or south side of the existing BPA corridor. This discussion encompasses construction on either side of the existing corridor.
accessory to that use. The other related and supporting facilities are also permitted under
prescribed conditions within the RIPD zone. The three pipelines are each uses that facilitate
the production of electricity. The transmission line distributes that electricity. In 2001, the
Beaver Generating Plant applied for an expansion, which Columbia County approved as an
expansion to a facility for “storage and distribution of services.” (That expansion is also
known as “Beaver 8.” In Attachment D, references to the Beaver Generating Plant apply to
the whole facility.) For these reasons, the Project is a conditional use in the RIPD zone.
CCZO § 685 provides that all requests made pursuant to CCZO § 683 are subject to the
criteria in:

- CCZO § 681 (Purpose);
- CCZO § 683 (Uses Permitted Under Prescribed Conditions);
- CCZO § 684 (Standards); and
- CCZO § 1503 (Conditional Uses). ³

In addition, because PGE is seeking a variance with respect to the fencing, parking, and
loading standards, PGE must satisfy the variance standards in CCZO § 1504.⁴

**CCZO § 681 Purpose:**

The purpose of this district is to implement the policies of the Comprehensive Plan
for Rural Industrial Areas. These provisions are intended to accommodate rural and
natural resource related industries, which:

.1 Are not generally labor intensive;

The energy facility will employ about 25 employees during plant operations. Therefore, it is
not a labor-intensive operation. The related and supporting facilities will require periodic
maintenance and monitoring, but will not require additional employees and are therefore not
labor intensive.

.2 Are land extensive;

The energy facility site will encompass about 19 acres and is, therefore, a land-extensive use.
Although the primary reason for locating a 1.5 mile segment of the transmission line in the
RIPD zone is to allow connection with the energy facility, that 1.5 mile segment of the
transmission line is itself a land-extensive use. Similarly, although the primary reason for
locating a 3,600 foot segment of the Trojan option in the RIPD zone is to allow connection
with the Trojan Nuclear Plant (which is itself located in the RIPD zone), that 3,600 foot
segment is also land extensive.

³ Unless otherwise noted, the discussion of the energy facility also pertains to and justifies the siting of the
water supply, wastewater discharge, and natural gas pipelines, as well as the construction staging area, all of
which are located on the tract leased by PGE and within the RIPD zone.
⁴ CCZO standards applicable in all zones are addressed separately in Section III.C., below.
.3 Require a rural location in order to take advantage of adequate rail and/or vehicle
and/or deep water port and/or airstrip access;

The energy facility requires a rural location to use the Columbia River and Bradbury Slough
as a water source, and to take advantage of the existing facilities, including the existing
intake structure on the Columbia River/Bradbury Slough and the natural gas pipeline. The
site also affords access to the Burlington Northern and Santa Fe Railway Astoria-to-Portland
branch line and an existing dock on the Columbia River, which will be used during
construction or operation. The transmission line is not itself dependent upon the rural
location. The transmission line is, however, a necessary component of the proposed energy
facility, which is itself locationally dependent.

.4 Complement the character and development of the surrounding rural area;

The energy facility will be located in the Port Westward Industrial Park. The exception
statement for the Port Westward tract in the County’s Comprehensive Plan reflects that the
anticipated uses of the area would be industrial in nature and take advantage of the existing
services, including the proximity to the river. Examples listed in the Plan include an oil
refinery, a coal port, and a petrochemical tank farm. The primary existing use at the Port
Westward Industrial Park is another energy facility (the Beaver Generating Plant). The
available infrastructure includes a dock on the Columbia River, a water intake system,
railroad tracks, and a natural gas pipeline. The proposed energy facility will use this existing
infrastructure during construction and/or operation. Therefore, the energy facility use will
complement the existing character and development of the area.

Rural uses surrounding the Port Westward tract are primarily limited to traditional
agricultural uses. The proposed energy facility site is in the northern portion of the Port
Westward tract between the Beaver Generating Plant and the Columbia River. It is roughly
equidistant from the eastern and western boundaries of the tract. Thus, there will be a buffer
between the energy facility and any agricultural or residential uses in the surrounding rural
area. The closest area currently in agricultural use is about 0.75 miles south of the energy
facility proper. The water supply pipeline will extend southeast roughly 0.75 miles to the
water intake structure. The staging area will be located roughly 0.75 miles southeast of the
energy facility. It will be temporary. The closest dwelling is located southeast of the
proposed site and about 3,600 feet from the boundary of the Port Westward tract. As a result,
the energy facility will not impact agricultural or residential uses surrounding the Port
Westward tract.

The transmission line and associated towers also complement the existing development in the
area by taking advantage of space available in the existing transmission corridor connecting
Port Westward to the BPA Allston Substation. Adding a new transmission line in this
existing corridor will not alter the character and development of the area. Similarly, a new
transmission line near the Trojan Nuclear Plant line will be consistent with and complement
the character and development in that area, which includes the Trojan Nuclear Plant and
associated office buildings, as well as a series of other transmission lines that connect to the
substation there.
Are consistent with the rural facilities and services existing and/or planned for the area; and

The energy facility use is consistent with existing or planned facilities and services. Process water will be provided from the existing PGE intake structure on Columbia River/Bradbury Slough under water rights held by the Port of St. Helens. PGE will construct a short gas pipeline lateral to connect the energy facility to the existing K-B gas pipeline. The Port of St. Helens will build a separate industrial wastewater system to serve all Port Westward industries. The energy facility will use a new on-site septic system. The energy facility will also have an on-site fire protection system. The Clatskanie Drainage District will continue to handle storm water drainage. The transmission lines themselves will not require any rural services.

Will not require facility and/or service improvement at significant public expense. The energy facility will rely upon existing or new on-site facilities and services as described in discussion of CCZO § 681.5, above. Any necessary expansion to the on-site service systems will be borne by PGE. The energy facility will have an on-site fire protection system and will not impose significant expense on the public generally or the Clatskanie Rural Fire Department in particular. Installation of new transmission line and poles will not require any additional services or facility improvements that will cause any public expense. Concerns have been raised regarding potential impacts to area roads and levees. PGE will mitigate this impact in part by using alternative delivery methods (barge and rail). In addition, PGE and the County have entered into an agreement by which PGE has agreed to pay for its share of a set of public transportation improvements identified by the County and Port Westward developers. The County has since confirmed that the planned improvements and agreed upon funding satisfy the County’s Comprehensive Plan and Zoning Ordinance. (See Section D.13 of the Order.)

The uses contemplated for this district are not appropriate for location within Urban Growth Boundaries due to their relationship with the site-specific resources noted in the Plan and/or due to their hazardous nature.5

The energy facility will rely on several site-specific resources and facilities, including water from the Columbia River and Bradbury Slough, the existing water intake structure, the K-B pipeline, the Burlington Northern and Santa Fe Railway Astoria-to-Portland branch line and the existing dock on the Columbia River. Although placement of the transmission line is generally dictated by the rural location of the energy facility, PGE will use a site-specific resource (namely, the remaining width in existing PGE transmission corridor) to minimize impacts associated with a new transmission line to the BPA Allston Substation. Similarly, the location of the RIPD-zoned segment of the Trojan option is dictated by the location of the Trojan Nuclear Plant, which is itself outside the urban growth boundary.

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5 This standard appears, unnumbered, in CCZO § 681.
CCZO § 683 Uses Permitted Under Prescribed Conditions:

CCZO § 683.1

A. The requested use conforms with the goals and policies of the Comprehensive Plan — specifically those policies regarding rural industrial development and exceptions to the rural resource land goals and policies.

The County’s Comprehensive Plan provides that the goal of the Resource Development zoning designation is "to provide for industrial development on rural lands when such development can be shown to support, use, or in some manner be dependent upon the natural resources of the area." The Port Westward Exception Statement provides that the Rural Industrial designation at Port Westward “is intended to take advantage of the location on the Columbia River, the existing dock facilities, railroad, and urban services.” The gas pipeline is listed as one of the existing facilities available at the site.

The energy facility fulfills the Comprehensive Plan goal because it is an industrial use that is dependent on the Columbia River and the Bradbury Slough as a water source. It fulfills the purpose of the exception by taking advantage of its proximity to the Columbia River, existing K-B pipeline, and existing rail and dock facilities, and the opportunity to locate a heavy industrial use away from potentially incompatible uses within an urban area. As an integral part of the energy facility, the transmission line also complies with both the Comprehensive Plan policies regarding rural industrial development and the exception statement for the Port Westward tract.

Policy 3 of the Resource Industrial Development section of the Comprehensive Plan provides that industrial development on lands zoned RIPD should be restricted to uses that meet the criteria in CCZO § 681. For the reasons outlined above with respect to CCZO § 681, the energy facility and transmission line meet each of these criteria.

B. The potential impact upon the area resulting from the proposed use has been addressed and any adverse impact will be able to be mitigated considering the following factors:

1 Physiological characteristics of the site (i.e., topography, drainage, etc.) and the suitability of the site for the particular land use and improvements;

6 The Comprehensive Plan RIPD section appears to identify one additional factor:

“G. Are not appropriate for location within Urban Growth Boundaries due to their hazardous nature.”

We construe this criteria as offering an alternative basis for siting a use on rural RIPD-zoned land, rather than an additional criterion, particularly in light of the use of “or” between factors F and G and the way in which this factor is phrased in CCZO § 681. Further, the Port Westward exception statement notes the appropriateness of the area for “uses which are ‘hazardous or incompatible with densely populated areas.’”

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The energy facility site is well-suited for a 19-acre energy facility development for the reasons noted above. The site is predominantly flat with slopes of less than three percent. It is also located within the Beaver Drainage District and is therefore well drained. The energy facility and the corridor for the water intake pipeline were located so as to minimize impacts on wetlands. No wetlands are impacted by the location of the wastewater discharge or gas pipelines or by the construction staging area. The alignment for the initial 1.5-mile segment of the transmission line is well-suited for that use because it takes advantage of the existing transmission corridor. The alignment for the RIPD-zoned segment of the Trojan option is also well-suited to that use because the Trojan Nuclear Plant is itself in the RIPD zone and because the new transmission line will be located immediately adjacent to the existing BPA line. The existing PGE Port Westward to BPA Allston Substation line and BPA Allston Substation to Trojan lines have operated without problems since their installation in the early 1970s.

.2 Existing land uses and both private and public facilities and services in the area;

The energy facility will be part of the existing Port Westward Industrial Park. Existing land uses and facilities include the Beaver Generating Plant, transmission lines, a 1,250-foot dock adjacent to the Columbia River, railroad tracks, a 1.3-million barrel tank farm, a water supply system that draws from the Bradbury Slough, and the K-B gas pipeline. The existing land uses and facilities in the vicinity of the initial 1.5-mile segment of the transmission line would be the same. Given their industrial nature, the existing uses are not sensitive to the impacts of the energy facility or transmission line and there should be no adverse impact.

Existing land uses and facilities in the area of the about 3,600 foot segment of the transmission line crossing RIPD-zoned land under the Trojan option include the existing BPA transmission corridor and the Trojan Nuclear Plant. Again, given their industrial nature, the existing uses are not sensitive to the impacts of the energy facility and there should be no adverse impact.

Due to the existing development on the Port Westward tract, the area already receives most of the necessary services. As fully described in response to CCZO §681.5 and .6, the energy facility will rely on existing facilities or new on-site facilities, and will not adversely impact services in the area. The County and PGE have identified transportation improvements and other measures needed to mitigate transportation impacts and have executed an agreement addressing financing of the identified improvements, as noted above.

.3 The demonstrated need for the proposed use is best met at the requested site considering all factors of the rural industrial element of the Comprehensive Plan.

The factors of the rural industrial element of the County’s Comprehensive Plan are addressed in response to CCZO §§ 681 and 683.1.A., above. The energy facility site is a good location given its proximity to an existing water source, an interstate natural gas pipeline, an electric transmission corridor, and an existing electric generating plant, as well as access to existing rail and dock facilities. The location of the site and its commitment to industrial uses will minimize the likelihood of adverse impact on any incompatible uses. Both RIPD-zoned segments of the transmission line are locationally dependent. The initial 1.5-mile segment must interconnect with the energy facility and the 3,600-foot segment crossed under the
Trojan option must interconnect with the Trojan Nuclear Plant, both of which are located on RIPD-zoned land.

C. The requested use can be shown to comply with the following standards for available services:

.1 Water shall be provided by an on-site source of sufficient capacity to serve the proposed use, or a public or community water system capable of serving the proposed use.

The Port of St. Helens holds a water right allowing for diversion of up to 30 cubic feet per second ("cfs") from the Columbia River/Bradbury Slough for municipal and industrial use. Water will be supplied to the energy facility via the existing PGE intake structure on the Columbia River/Bradbury Slough, which is an authorized point of diversion under the Port's water right. PGE will contract with the Port for about 8.3 cfs of the Port’s existing water right. The record includes a letter from the Port confirming that it will contract with PGE to use this water. The transmission line will not require a water supply.

.2 Sewage will be treated by subsurface sewage system, or community or public sewer system, approved by the County Sanitation and/or the State DEQ.

Sanitary sewage will be routed to a disposal system consisting of a septic tank and leach field on the energy facility site. The system will be appropriately sized to serve the permanent employees of the energy facility. PGE will obtain a Water Pollution Control Facilities ("WPCF") permit from DEQ for this system, as directed by the Council in this Order. The transmission line will not require such services.

.3 Access will be provided to a public right-of-way constructed to standards capable of supporting the proposed use considering the existing level of service and the impacts caused by the planned development.

Access to the eastern portion of the Port Westward tract is provided via Kallunki Road, a public right-of-way. A private road extends from the boundary of the Port Westward tract directly to the site. Kallunki Road is capable of supporting all traffic that will be generated by the operation of the energy facility. PGE has proposed measures to mitigate transportation impacts during construction of the energy facility. As noted above, the County and PGE have identified improvements and mitigation measures needed to address transportation-related impacts and have entered into an agreement by which PGE will be funding its share of the cost of those improvements. No improvements are planned or needed on the private section of the road. The transmission line will not require access to a public right-of-way.

.4 The property is within, and is capable of being served by, a rural fire district; or, the proponents will provide on-site fire suppression facilities capable of serving the proposed use. On-site facilities shall be approved by either the State or local Fire Marshal.
The energy facility will use an approved on-site, high-pressure fire protection system. The energy facility site is also served by the Clatskanie Rural Fire Department. With on-site fire suppression facilities, the services of the Department will be adequate to meet the needs of the energy facility. The transmission line will not require such services. The transmission line will, however, have a safety corridor of 125 feet and the area will be kept cleared as required by applicable safety standards, including the National Electrical Safety Code.

**CCZO § 683.3 Signs as provided in Chapter 1300.**

CCZO § 1300 regulates the establishment, alteration, or expansion of any sign in any district in Columbia County. CCZO § 1313 provides the specific standards for signs in commercial and industrial districts. Signage on an energy facility typically is for identification, security or safety purposes, rather than for advertising, and therefore is sized only to be visible to those who need to see it. PGE has not designed its signage yet, but has committed to comply with all of the applicable standards for industrial districts.

**CCZO § 683.4 Off street parking and loading as provided in Chapter 1400.**

For a manufacturing use, CCZO § 1416.5 requires one parking space per employee on the largest shift. PGE has provided a preliminary arrangement for parking. It shows 29 parking spaces, including a handicapped accessible space. That is more than sufficient, given that the energy facility is expected to have about 25 employees divided among 3 shifts. As discussed above, specific requirements for dimensions of parking places and aisles, as well as accessible parking and parking lot landscaping will be addressed in a plot plan prior to issuance of building permits. PGE seeks a variance from the loading space requirements as more fully described in the discussion of CCZO § 1504, below.

**CCZO § 684 Standards:**

.1 The minimum lot or parcel size for uses allowed under Section 682 shall be 38 acres.

This criterion is not applicable. The facility is allowed under CCZO § 683.

.2 The minimum lot or parcel size, average lot or parcel width and depth, and setbacks for uses allowed under Section 683, shall be established by the Planning Commission and will be sufficient to support the requested rural industrial use considering, at a minimum the following factors:

A. Overall scope of the project. Should the project be proposed to be developed in phases, all phases shall be considered when establishing the minimum lot size.

B. Space required for off-street parking and loading and open space, as required.

C. Setbacks necessary to adequately protect adjacent properties.

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7 CCZO §§ 683.2 and 683.5 pertain to accessory buildings and home occupations, respectively. Neither is applicable to the proposed use.
The energy facility will be located on about 19 acres of the 852-acre Port Westward tract leased by PGE. PGE is not proposing to develop the energy facility in phases. The 19-acre site provides adequate space for all site improvements and incorporates setbacks from any potential surrounding uses. These factors are not applicable to the buried pipelines. The temporary staging area is set back from adjacent properties. The other factors are not applicable to the staging area. The transmission line will traverse multiple parcels. These factors are not applicable to the transmission line.

Access shall be provided to a public right-of-way of sufficient construction to support the intended use, as determined by the County Roadmaster.

An existing county road, Kallunki Road, provides access to the Port Westward tract. This road is capable of supporting all traffic that would be generated by the operation of the energy facility. PGE and the County have identified improvements and mitigation measures needed to address transportation-related impacts during construction and have entered into an agreement by which PGE will be funding its share of those improvements. The transmission line will not require access to a public right-of-way.

CCZO § 1503 Conditional Uses:

Pursuant to CCZO § 1503.5, PGE must demonstrate that the proposed use also satisfies the following criteria:

A. The use is listed as a Conditional Use in the zone which is currently applied to the site;

The energy facility is permitted subject to the prescribed conditions because it is a use that involves the production of electricity through the processing of a material (natural gas) as well as the distribution of that electricity as a service. The construction staging area is an accessory to the energy facility use. The other related and supporting facilities are also permitted under prescribed conditions within the RIPD zone. Each of the three pipelines facilitates the production of electricity. The transmission line distributes that electricity.

B. The use meets the specific criteria established in the underlying zone;

The energy facility and transmission line satisfy the applicable criteria in the RIPD zone (CCZO §§681, 683 and 684), as described above.

C. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements, and natural features;

The site is suitable for an energy facility for the reasons discussed above with respect to CCZO §§681, 683 and 684. The transmission corridors are suitable for transmission lines for the reasons discussed above with respect to CCZO §§ 681, 683 and 684.

D. The site and proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use;
The energy facility is timely considering the adequacy of the transportation systems, public facilities, and services existing or planned for the area, as fully described in the discussion under CCZO §§ 681, 683, 684. The construction of the transmission line between the energy facility and BPA Allston Substation is timely in light of the space available in the existing transmission corridor. The connection to the Trojan Nuclear Plant is also timely because it currently has capacity for the interconnection of the new 230-kV line.

E. The proposed use will not alter the character of the surrounding area in a manner, which substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying district;

Permitted uses in the RIPD zone include farm use and the management, production and harvesting of forest products. Uses allowed under prescribed conditions include industrial uses such as the production and processing of materials, laboratories, or storage and distribution of services. The Port Westward Exception Statement in the County’s Comprehensive Plan designates this area as being appropriate for industrial uses. The only existing industrial use on the Port Westward tract is another power generating facility, the Beaver Generating Plant, which occupies about 120 acres. The energy facility will be located directly north of the existing plant and is consistent with this existing use. The staging area will be located in a graveled area southeast of the energy facility near the existing water intake structure and about 300 feet from the PA-38 zone.

The undeveloped portion of the Port Westward tract is used as a pasture. The energy facility will, however, be located in the northern portion of the tract, between the existing Beaver Generating Plant and the Columbia River. As such, it will be separated from this use by a sufficient distance to prevent negative impacts.

The uses surrounding the Port Westward tract primarily consist of traditional agricultural uses. The closest agricultural uses are grazing and cultivation of mint. There are also a few dwellings within the general vicinity (the closest being southeast of the energy facility and about 3600 feet boundary of the 892-acre Port Westward tract). The energy facility’s distance from the surrounding agricultural zone ensures that it will not substantially limit, impair or preclude future uses on those properties. PGE has committed to mitigation measures related to visual impacts (e.g. paint color, lighting) and noise impacts (e.g. plant design, delivery by barge). Similarly, the staging area will be in a developed area about 300 feet from the closest PA-38 zone. Temporary use of the staging area during construction is wholly consistent with the industrial uses in the surrounding area and will not alter the character of the surrounding agricultural area in a manner that limits, impairs, or precludes agricultural use of the area properties zoned for or developed with agricultural uses.

Existing land uses adjacent to the portion of the transmission line corridor from Port Westward to the BPA Allston Substation also include the Beaver Generating Plant, farms, forest uses, and rural residences, as well as the existing PGE transmission lines. The easement for the existing corridor already precludes encroachment by incompatible uses. The new transmission line will not alter the character of the surrounding area in a manner that would limit or preclude any existing or future farming or forestry operations in the surrounding area beyond the limitations that already exist by virtue of the industrial character of the Port Westward Industrial Park and the existing transmission corridor.
Existing land uses adjacent to the second segment of the Trojan option (the section of the transmission line from BPA Allston Substation to the Trojan Nuclear Plant) include the existing BPA transmission line from Trojan to the BPA Allston Substation and the PGE Harborton line, City of Rainier watershed, PGE Trojan Park (private), and the Trojan Nuclear Plant (undergoing decommissioning). Consequently, the character of the surrounding area is already partially defined by transmission lines and corridors. An additional line and corridor would not alter that character and would not impede future uses that are consistent with the existing industrial character of the area.

F. The proposal satisfies the goals and policies of the Comprehensive Plan, which apply to the proposed use;

The applicable Comprehensive Plan goals and policies as identified by the County are addressed in Section IV, below.

G. The proposal will not create any hazardous conditions.

PGE will be required to follow all applicable safety laws and regulations in constructing and operating the energy facility, including those related to natural gas pipeline safety and fire safety. (See Sections D.13 and E.1.c of the Order.)

PGE will also meet all applicable standards for construction and operation of the transmission line and will consult with the appropriate local fire districts and agencies to ensure that all necessary safety precautions are taken. (See Sections D.13 of the Order.)

B. FARM, FOREST AND RESIDENTIAL ZONES

In addition to RIPD, the transmission line will pass through land zoned by Columbia County as Primary Agriculture (PA-38), Forest Agriculture (FA-19), Primary Forest (PF-76), and Rural Residential (RR-5). The Summit interconnection will pass through land zoned PF-76 and FA-19.

1. COLUMBIA COUNTY PRIMARY AGRICULTURE (PA-38) ZONE

After leaving the RIPD zone, the existing Port Westward to BPA Allston Substation transmission corridor (in which the new transmission line would be located under either the Allston or Trojan Option) crosses property zoned PA-38. Pursuant to CCZO § 303.8, “facilities necessary for public utility service” are allowed as conditional uses in the PA-38 zone. The proposed transmission line is a facility necessary for public utility service. As such, it is subject to the standards in:

- CCZO § 304 (Standards);
- CCZO § 306 (Special Notice Requirements); and
- CCZO § 1503 (Conditional Uses).

A variance will also be required under CCZO § 1504.
CCZO § 304 Standards:

.6 No structure shall be constructed closer than 30 feet to a property line.

PGE will not place towers closer than 30 feet from a property line in the PA-38 zone.

.7 Unless otherwise prohibited, the maximum building height for all non-farm, non-forest structures shall be 50 feet or 2-1/2 stories, whichever is less. Unless otherwise prohibited, structures such as barns, silos, windmills, antennas, chimneys or similar structures may exceed the height limitations to a maximum height of 50 feet.

The transmission towers will be about 120 feet high. This exceeds the 50-foot limit for non-farm, non-forest structures. The towers located within the PA-38 zone qualify for a variance from the height limitation described in the discussion of CCZO § 1504, below.

CCZO § 306 Special Notice Requirements:

.1 The County Agricultural Extension office and the Soil and Water Conservation Service shall be notified of all requests made under Section 303 and 305 of this chapter. These two agencies will be given 10 working days to comment on such requests.

The transmission line is a conditional use under CCZO § 303. The requirement for notice and opportunity to comment is met by the notice and comment period of at least 20 days for the Office of Energy’s Draft Proposed Order, required by OAR 345-015-0220. The Office sent notice of the Draft Proposed Order to the County Agricultural Extension office and the Soil and Water Conservation Service.

CCZO § 1503 Conditional Uses:

Pursuant to CCZO § 1503.5, PGE must demonstrate that the proposed use also satisfies the following criteria:

A. The use is listed as a Conditional Use in the zone which is currently applied to the site;

The transmission line is a conditional use in the PA-38 zone because it is a facility necessary for public utility service.

B. The use meets the specific criteria established in the underlying zone;

As described above, the transmission line satisfies the criteria established for the PA-38 zone as set forth in CCZO §§ 303, 304 and 306 (with the exception of the height limitation in CCZO § 304.7, which is addressed further below).

8 The standards in CCZO §§ 304.1 through 304.6 were not identified by the County as applicable substantive criteria. CCZO §§ 304.1 through 304.5 are not applicable because the transmission line will not require a land division or change in parcel dimensions. PGE has committed to comply with the 30 foot setback requirement in CCZO § 304.6.
C. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements, and natural features;

No new right-of-way will be created in the PA-38 zone to meet transmission needs of the energy facility. The transmission line alignment is suitable because it is within the existing transmission corridor, which is currently in use for a similar transmission line. The existing transmission line has operated without problems since its installation in the early 1970s.

D. The site and proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use;

The development is timely because the corridor currently has capacity to accept another line. No transportation systems, public facilities, or services are required for or affected by the additional transmission line.

E. The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying district;

Permitted uses in the PA-38 zone include farm use, the propagation or harvesting of forest products, farm dwellings, farm buildings, and exploration and production of geothermal resources. Conditional uses include limited commercial activities, mining, schools, community centers, golf courses, parks, personal use airports, and home occupations. The current character of the surrounding area includes farms, forest uses, and rural residences, as well as the existing Port Westward to BPA Allston Substation corridor and transmission lines. PGE holds an easement for the existing corridor, which already prevents encroachment by uses incompatible with overhead transmission lines. Most farming activities can, however, continue within the transmission corridor. Two additional overhead circuits and associated towers within the boundaries of that corridor will have a little or no effect on surrounding uses.

F. The proposal satisfies the goals and policies of the Comprehensive Plan which apply to the proposed use;

The applicable Comprehensive Plan goals and policies as identified by the County are addressed in Section IV, below.

G. The proposal will not create any hazardous conditions.

PGE is required to comply with all applicable safety standards for the new transmission line and consult with the appropriate local fire districts and agencies to ensure that all necessary safety precautions are taken. (See Section D.13 of the Order.)

2. COLUMBIA COUNTY FOREST AGRICULTURE-19 (FA-19) ZONE

The existing Port Westward to BPA Allston Substation transmission corridor (in which the new transmission line will be located under either routing alternative) crosses a single parcel zoned FA-19. The Summit interconnection also crosses land zoned FA-19 along the east
side of the BPA Allston Substation. Pursuant to CCZO § 404.7, the transmission lines are a conditional use in the FA-19 zone because they are each a "facility necessary for public utility service." As a conditional use, the transmission lines are subject to the following sections of the zoning ordinance:

- CCZO § 405 (Conditional Uses Permitted in the FA-19 Zone);
- CCZO § 407 (Standards); and
- CCZO § 1503 (Conditional Uses).

A variance will also be required under CCZO § 1504.

CCZO § 405 **All Conditional Uses Permitted in the FA-19 Zone:**

.1 The use will not significantly increase the cost, nor interfere with accepted forest management practices or farm uses on adjacent or nearby lands devoted to forest or farm use.

The transmission line will be placed within the existing Port Westward to BPA Allston Substation corridor. An additional transmission line within that corridor will not impose additional costs on or create new constraints for farm or forest practices in the area. The easement for the existing corridor already prevents encroachment by uses incompatible with overhead transmission lines. Thus, uses incompatible with transmission lines could not be located in the corridor, whether or not the new transmission line is constructed. Farming can generally continue under overhead transmission lines, however. Aerial spraying is already limited by the existing transmission facilities within the corridor. Some clearing of brush and immature trees is anticipated to be necessary within the transmission corridor, but forestry activities outside the corridor would not be affected.

The Summit interconnection will be in a new corridor that passes under (west to east) and parallels (north to south) existing BPA and PGE transmission lines. Open areas crossed by the interconnection are owned by the United States and do not appear to be under cultivation. Forestry use is already constrained by the presence of the substation and numerous transmission lines, as well as the presence of wetlands.

.2 The use shall be limited to a site no larger than necessary to accommodate the activity and, as such will not materially alter the stability of the overall land use pattern of the area or substantially limit or impair the permitted uses of surrounding properties. If necessary, measures will be taken to minimize potential negative effects on adjacent forestlands.

The existing land use pattern includes farms and forest uses. The transmission line will be located in the remaining 125 feet of an existing corridor adjacent to existing transmission facilities. PGE holds an easement for the transmission corridor, preventing interference with transmission facilities. Thus, uses incompatible with the transmission line could not be located in the corridor, whether or not the new transmission line is constructed. Similarly, the interconnection at the BPA Allston Substation is located in an area already dominated by
existing transmission facilities, substantially limiting the amount of additional land affected
by the interconnection. Moreover, farm activities generally can continue under overhead
transmission lines and any constraints (such as limitations on aerial spraying) already exist
by virtue of the existing transmission facilities within the corridor. The National Electrical
Safety Code requires a cleared buffer within the corridor to separate the transmission line
from any adjacent forestlands. The cleared area minimizes any potential negative effects on
adjacent forestlands. As a result, the transmission lines will neither alter the stability of the
farm and forest land use pattern of the area, nor substantially limit or impair farm and forest
uses on surrounding properties.

.3 The use does not constitute an unnecessary fire hazard, and provides for fire safety
measures in planning, design, construction, and operation.

The transmission line will not constitute an unnecessary fire hazard. As with the existing
transmission line, the new transmission line and interconnection will have a safety corridor of
125 feet surrounding the line. PGE will continue to keep this area cleared, pursuant to
applicable safety standards.

.4 Public utilities are to develop or utilize rights-of-way that have the least adverse
impact on forest resources. Existing rights-of-way are to be utilized whenever
possible.

PGE has satisfied this criterion by using capacity available in the existing Port Westward to
BPA Allston Substation right-of-way and by locating the new corridor needed for the
interconnection such that it crosses and parallels existing transmission corridors. Some tree
cutting will be required on the north-south leg of the interconnection, but the location of the
corridor will have little or no impact on forest resources given the small parcel size,
proximity to the substation and existing transmission lines, and the presence of wetlands.

.5 Road standards shall be limited to the minimum width necessary for management and
safety.

The new transmission lines will not require the construction of new roads or affect road
standards. Therefore, this criterion is not applicable.

.6 Development within major and peripheral big game range shall be consistent with the
maintenance of big game habitat. In making this determination, consideration shall
be given to the cumulative effects of the proposed action and other development in
area on big game habitat. Where such a finding is made, development shall be sited
to minimize the impact on big game habitat. To minimize the impact, structures
shall: be located near existing roads; be as close as possible to existing structures on
adjoining lots; and be clustered where several structures are proposed.

The Columbia County Comprehensive Plan identifies Major Big Game Habitat Areas and
Peripheral Big Game Habitat Areas. The portions of the transmission corridor located within
the FA-19 zone do not appear to be located in either of these habitat areas. Consequently,
this standard is not applicable.
Although this criterion is not applicable, it is met. The fact that the new transmission line will be located within an existing corridor means that no mature forest cover will need to be removed. Similarly, the interconnection will be in an area dominated by other transmission lines and will not alter the character of the area. The overhead transmission lines will not interfere with movement of big game, and the clearing under and around the transmission line could provide an area for big game to feed. Unlike areas devoted to forestry use in which foraging by deer may conflict with attempts at reforestation, foraging by deer within the transmission corridor would be consistent with the need to keep the corridor clear of mature vegetation.

CCZO § 407 Standards.\(^9\)

5. The maximum building height for all non-farm structures shall be 35 feet.

The transmission towers will be about 120 feet in height (slightly lower for the towers used for the interconnection). They will exceed the 35-foot height limit for non-farm structures. The towers located within the FA-19 zone qualify for variance from the height limitation as more fully described in the discussion of CCZO § 1504, below.

CCZO § 1503 Conditional Uses:

CCZO § 1503.5 imposes the following criteria:

A. The use is listed as a Conditional Use in the zone which is currently applied to the site;

The transmission lines are a conditional use in the FA-19 zone because they are facilities necessary for public utility service.

B. The use meets the specific criteria established in the underlying zone;

As described above, the transmission lines satisfy the applicable criteria established for the FA-19 zone as set forth in CCZO §§ 405 and 407.

C. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements, and natural features;

With the exception of the Summit interconnection, no new right-of-way will be created in the FA-19 zone to meet transmission needs of the energy facility. The alignment of the transmission line is suitable because it follows the existing transmission corridor, which is currently in use for a similar transmission line. The site of the interconnection is also suitable. The route provides for connection to a vacant bay at the BPA Allston Substation while minimizing the need to clear new corridor because the line passes under and then parallels existing transmission lines.

\(^9\) The standards in CCZO §§ 407.1 through 407.4 were not identified by the County as applicable substantive criteria. CCZO §§ 407.1 through 407.4 are not applicable because the transmission line will not require a land division or change in parcel dimensions or frontage. PGE has committed to comply with the 30-foot setback requirement in CCZO § 407.5.
D. The site and proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use;

The development is timely because the existing corridor currently has capacity to accept another line and the BPA Allston Substation has a bay available to accommodate the interconnection. No transportation systems, public facilities, or services are required or affected by the additional transmission line or interconnection.

E. The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying district;

Permitted uses in the FA-19 zone include farm use, the propagation or harvesting of forest products, farm or forest dwellings, accessories to farm use, and the exploration for geothermal resources. Conditional uses include limited commercial activities, mining, schools, churches, community centers, parks or playgrounds, facilities necessary for public utility service, airport landing strips, home occupations forest product processing facilities, horse breeding, solid waste disposal, single family dwellings, and signs.

The current character of the surrounding area includes the existing Port Westward to BPA Allston Substation transmission line and corridor. PGE already holds an easement for the existing corridor that prevents encroachment by uses incompatible with overhead transmission lines. The additional transmission line will not restrict primary uses in the surrounding area any more than the existing transmission line. Forestry is already precluded within the existing corridor. Most farming activities can, however, continue within the transmission corridor. Similarly, the interconnection is in an area dominated by the BPA Allston Substation and existing transmission lines. Addition of the new corridor, which will pass beneath and then parallel the existing corridors, will not create new limitations on the primary uses in the zone.

F. The proposal satisfies the goals and policies of the Comprehensive Plan which apply to the proposed use;

The applicable Comprehensive Plan goals and policies as identified by the County are addressed in Section IV, below.

G. The proposal will not create any hazardous conditions.

PGE is required to comply with all applicable safety standards for the new transmission lines and consult with the appropriate local fire districts and agencies to ensure that all necessary safety precautions are taken. (See Section D.13 of the Order.)

3. COLUMBIA COUNTY PRIMARY FOREST -76 (PF-76) and RURAL RESIDENTIAL-5 (RR-5) ZONES

The transmission line is not identified as a permitted or a conditional use in the PF-76 or RR-5 zones. The majority of the transmission line, under both the Allston and Trojan options is located within the PF-76 zone. The BPA Allston Substation and the Summit

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interconnection are also located in the PF-76 zone. Pursuant to CCZO § 503.6, utility
facilities, including utility corridors for electrical transmission lines of up to 115 kV, are
allowed as a conditional use in the PF-76 zone. The transmission lines will, however, be
230-kV lines, thereby exceeding the voltage limitation of CCZO § 503.6. As such, they do
not qualify as a conditional use in the PF-76 zone.

Two segments of the existing Port Westward to BPA Allston Substation transmission
corridor are located in the RR-5 zone. Thus, the Allston option will also pass through the
RR-5 zone. The second segment of the Trojan option will pass through land zoned RR-5
only if the second or fourth alignment is used. The permitted and conditional uses in the
RR-5 zone are identified in CCZO § 602 and 603. Utility lines or corridors are not identified
as permitted or conditional uses in the RR-5 zone.

Pursuant to ORS 469.504(1)(b)(B), a facility that does not comply with one or more
substantive criteria in the local land use code must demonstrate compliance with the
Statewide Planning Goals. This section addresses compliance with the Statewide Planning
Goals for the portions of the Allston and Trojan options that cross the PF-76 and the RR-5
zones.

**Goal 1 (Citizen Involvement):** To develop a citizen involvement program that
insures the opportunity for citizens to be involved in all phases of the planning
process.

The ASC did not propose any changes to the public participation elements of either state or
local law. The Council's rules provide sufficient public notice and opportunity to comment
to satisfy the requirements of Goal 1.

**Goal 2 (Land Use Planning):** Part I — To establish a land use planning process and
policy framework as a basis for all decisions and actions related to use of land and to
assure an adequate factual base for such decisions and actions.

PGE is using an express statutory land use option, ORS 469.504(1)(b)(B), for these portions
of the transmission line.

**Goal 3 (Agricultural Lands):** To preserve and maintain agricultural lands.

Land zoned PF-76 is considered forestland, not agricultural land; therefore, Goal 3 is not
directly applicable to these portions of the transmission line in the PF-76 zone. (See CCZO
§500.) The RR-5 zone is intended to allow rural residential uses in those rural areas of the
County that were committed to non-resource use at the time of initial zoning. (See CCZO
§601.) Therefore, while some farm uses are permitted in the RR-5 zone, it is not considered
agricultural land, and Goal 3 is not applicable.

**Goal 4 (Forestlands):** To conserve forestlands by maintaining the forestland base
and to protect the state's forest economy by making possible economically efficient
forest practices that assure the continuous growing and harvesting of forest tree
species as the leading use on forestland consistent with sound management of soil,
air, water, and fish and wildlife resources and to provide for recreational opportunities
and agriculture.

The Allston option and the first segment of the Trojan option will be located entirely within
the existing Port Westward to BPA Allston Substation corridor. With the exception of the
Summit interconnection, no new right-of-way will be necessary. The new line will not alter
the existing impact on forest growth beyond minimal additional clearing attributable to full
use of the existing right-of-way. As noted above, the right to clear this area is already
provided for by the existing easement.

About 1300 feet of new right-of-way will be required to connect the Summit energy facility
to the BPA Allston Substation. This area is already impacted by the BPA Allston Substation
and related transmission facilities and easements. The second segment of the Trojan option
requires creation of a new right-of-way, but the new corridor will be located immediately
adjacent to the existing BPA Trojan to BPA Allston Substation right-of-way in order to
minimize the possible impact on forest growth. The general alignment of the new right-of-
way will be in an area that is already impacted by an existing utility corridor. Thus, the
overall effect on forest harvesting and management is minimized because the disturbance
area will be limited to a relatively narrow section of the County's forestlands immediately
adjacent to an existing transmission corridor.

Nonetheless, an exception to Goal 4 will be required for the second segment of the Trojan
option and the Summit interconnection within the PF-76 zone. The justification for that
exception and compliance with other Goal 4 rules is addressed below in Sections VI and
VII.10

As with Goal 3, although forest uses are permitted in the RR-5 zone, its is not considered
forest land and Goal 4 is therefore inapplicable.

Goal 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces): To
protect natural resources and conserve scenic and historic areas and open spaces.

The following discussion includes the Goal 5 resources relevant to the transmission corridor.

Open Space

Pursuant to the Goal 5 rule, open space includes forests. Within the PF-76 and RR-5 zones
the transmission lines would cross forest lands. However, neither the lines nor the poles
would negatively impact the open space values of this resource. Under the Allston option,
the entire transmission line will be located within an existing transmission corridor,
minimizing the impacts on open spaces. The second segment of the Trojan option and the
interconnection will require creation of new right-of-way in forest areas. Impacts on open
space resources will, however, be limited by placing the new corridors beneath and adjacent
to existing BPA transmission corridors. In addition, the corridor will be minimally
developed with the only structures being widely-spaced single pole transmission towers.

10 An exception does not appear to be necessary for construction in the existing utility right-of-way (the Allston
option and first segment of the Trojan option). Such an exception is, however, justified for the reasons
described in Section VII.
Most of the corridor will remain vegetated, although it will be necessary to trim or remove trees that may pose a threat to transmission lines.

Riparian Corridors

The transmission corridor will traverse a number of riparian areas including perennial streams and forested/shrub and emergent wetlands. PGE will employ mitigation programs to avoid riparian areas to the greatest extent possible in compliance with Goal 5 requirements. A minimal amount of riparian vegetation will be removed during construction and maintenance of the transmission lines. Pursuant to the mitigation plan, any removed vegetation will be replaced with native species in compliance with Goal 5 requirements.

Wetlands

The ASC describes the wetland areas located along the transmission corridors and details the mitigation measures that will be employed to avoid or minimize impacts to wetland areas. The transmission towers have been located to avoid wetland areas within portions of the corridor zoned PF-76 or RR-5 to the greatest extent possible. Only one tower in the PF-76 zone (T4) appears to be in wetlands. This impact has been addressed in PGE’s mitigation plan.

Wildlife Habitat

PGE will implement mitigation plans to minimize the removal of wildlife habitat and lessen the impact on surrounding wildlife.

The following Goal 5 resources are not relevant to the transmission lines within the PF-76 and RR-5 zones: Federal Wild and Scenic Rivers, Oregon Scenic Waterways, Groundwater Resources, Recreation, Approved Oregon Recreation Trails, Natural Areas, Wilderness Areas, Mineral and Aggregate Resources, Energy Resources, Historic Resources, and Scenic Views and Sites. These resources are not found in the area of the transmission lines in the PF-76 and RR-5 zones.

Goal 6 (Air, Water and Land Resources Quality): To maintain and improve the quality of the air, water and land resources of the state.

The transmission lines will not generate waste or discharge to air, land, or water. On a project-wide basis, however, PGE will be required to comply with all federal and state permitting requirements and environmental regulations.

Goal 7 (Areas Subject to Natural Disasters and Hazards): To protect life and property from natural disasters and hazards.

Goal 7 is intended to ensure that developments that could be damaged by natural disasters with the potential for resultant injury to persons or property are approved only where appropriate safeguards are in place. The transmission lines will be designed and constructed in accordance with the National Electrical Safety Code and will be placed within a cleared corridor free of encroachment by incompatible uses. Thus, the design of the facility protects against the potential for injury to persons or property, even in the event of a natural disaster. (See also Sections D.5 and E.1.c of the Order).
Goal 8 (Recreational Needs): To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of recreational facilities including destination resorts.

The ASC does not involve the siting of a recreational facility. See also, discussion of recreation standard, OAR 345-022-0100.

Goal 9 (Economic Development): To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare and prosperity of Oregon's citizens.

The energy facility and associated transmission lines satisfy Goal 9 not only by providing employment opportunities during construction and operation, but also by taking advantage of an appropriate site and existing infrastructure. The Goal 9 planning guidelines encourage the siting of industrial uses where they have a comparative advantage. Comparative advantage industries are defined as "those economic activities which represent the most efficient use of resources, relative to other geographic areas." The facility’s location is geographically appropriate and designed to make efficient use of available resources. As explained in detail above, with respect to CCZO §§ 681 and 683. Consequently, relative to other geographic areas in the region, the facility makes efficient use of resources and existing improvements. The Goal 9 planning guidelines also encourage the expansion of existing industries. The facility furthers this objective by expanding the existing electrical generating industry in Columbia County generally and the Port Westward Industrial Park specifically.

Goal 10 (Housing): To provide for the housing needs of citizens of the state.

Goal 10 is not applicable. Goal 10 has no effect on residential development outside a UGB. See, Goal 10 and OAR 660-008-0000. The segments of the transmission lines in the PF-76 zone will not affect housing availability or buildable lands. Similarly, although single-family dwellings are permitted outright in the RR-5 zone, lands zoned RR-5 are not "buildable lands" as that term is used in Goal 10 ("lands in urban or urbanizable areas that are suitable, available and necessary for residential use"). The Rural Residential element of the County's Comprehensive Plan recognizes that lands designated Rural Residential "are rural in nature [and] not suited for urbanizable or urban use." Thus, the segments of the transmission lines in the RR-5 zone will not affect housing availability or buildable lands, either.

Goal 11 (Public Facilities and Services): To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

The transmission lines will not require any new public facilities or services. See also, discussion of public services standard, OAR 345-022-0110.

Goal 12 (Transportation): To provide and encourage a safe, convenient and economic transportation system.

The transmission lines will not require construction or improvement of any roads or other transportation facilities and will not create any long-term conflicts with any such facilities.
There may be some temporary construction-related interruptions, but PGE will keep the interruptions to a minimum and will comply with all state and local transportation requirements. Furthermore, PGE will mitigate transportation impacts related to construction of the energy facility as described above.

**Goal 13 (Energy Conservation):** To conserve energy.

Goal 13 requires local governments to maximize energy conservation. This Goal does not appear applicable in that the transmission line will not consume energy. To the extent this Goal is applicable, the transmission line satisfies this Goal to the greatest extent possible by using existing transmission corridors.

**Goal 14 (Urbanization):** To provide for an orderly and efficient transition from rural to urban use.

The transmission line does not require a change in any land use designations and will not alter the rural character of the areas it crosses. Therefore, the transmission line will not have any impact addressed under Goal 14.

**Goals 15 through 19:**

These goals are not applicable because the transmission line will not be located in any of the geographical areas addressed by Goals 15 through 19.

**C. OTHER COLUMBIA COUNTY ZONING PROVISIONS**

Certain CCZO standards apply within the County’s jurisdiction regardless of the zoning designation.

- CCZO § 1170 (Protection of Water Quality, Streambank Stabilization, and Fish and Wildlife Habitat);
- CCZO § 1550 (Site Design Review); and
- CCZO § 1504 (Variances).

**CCZO § 1170 Protection of Water Quality, Streambank Stabilization, and Fish and Wildlife Habitat:**

The purpose of CCZO § 1170 is to provide for the protection of riparian areas adjacent to rivers, streams and lakes in the County. CCZO § 1170.2 prohibits the construction of structures other than fences and signs in riparian areas. The relevant riparian areas are defined in CCZO § 1170.1 as follows:

A. For all Class I rivers and streams, the area of riparian vegetation shall extend 50 feet landward of the ordinary high water line except where shrub or forested wetlands are located adjacent to the river, then the riparian are shall be the entire area of shrub or forested wetland. Where emergent wetland vegetation exists adjacent to a
river, the 50 feet shall be measured from the landward extent of the emergent vegetation.

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C. For all other rivers, streams, and sloughs, the area of riparian vegetation shall extend 25 feet landward of the ordinary high water line except where shrub and forested wetlands are located adjacent to the river, then the riparian area shall be the entire area of shrub or forested wetland. Where emergent wetland vegetation exists adjacent to a river, the 25 feet shall be measured from the landward extent of the emergent vegetation.

Pursuant to CCZO §1170.2.B, a lesser setback may be allowed if “the riparian vegetation does not actually extend all the way into the riparian area to the location of the proposed structure and the riparian vegetation has not been removed in violation of the * * * riparian vegetation maintenance standards.”

Class I rivers and streams are shown on Columbia County Comprehensive Plan Map 47. Class I rivers are defined as waters that are valuable for domestic use, are important for angling or other recreation, and/or are used by significant numbers of fish for spawning, rearing or migration routes.

The energy facility site is bordered to the north by the Columbia River and to the east by the Bradbury Slough. The Columbia River or the Bradbury Slough are considered Class I rivers subject to CCZO §1170.1.A. A dike has been built along the river adjacent to the energy facility site, which has eliminated most riparian vegetation. There are five wetland areas located on the energy facility site. Only one of the wetland areas, Wetland Area 5, is located adjacent to the Columbia River. Therefore, the setback required in the vicinity of Wetland Area 5 extends 50 feet from the landward extent of the emergent wetland vegetation. The setback required on the remainder of the energy facility site extends 25 feet from the ordinary high water line.

The transmission line would cross a number of Class I rivers identified on Map 47. Consequently, the setbacks in CCZO §1170.1.A apply.

The energy facility and the gas and wastewater discharge pipelines will be located more than 50 feet landward of the ordinary high water line of both the Columbia River and the Bradbury Slough and more than 50 feet from the landward extent of Wetland Area 5, in compliance with this requirement.¹¹ The existing water intake structure and dock are already located within the riparian area, however, modifications to these facilities will not require additional removal of riparian vegetation.

PGE has considerable flexibility in the placement of transmission towers. The transmission towers will be located so that the lines span riparian areas and stream channels. No transmission towers will be placed within 50 feet of a Class I river, stream, or the emergent vegetation adjacent to such a river or stream or within 25 feet of other rivers, streams, and

¹¹ The main wastewater discharge pipeline and treatment facility will be constructed by the Port of St. Helens, not PGE.
sloughs or the emergent vegetation adjacent to such a river, stream, or slough. (See Section D.8 of the Order.)

CCZO § 1170.3 regulates the maintenance, removal and replacement of riparian vegetation, and imposes the following standards:

A. No more of a tract’s existing vegetation shall be cleared from the setback and adjacent area than is necessary for a permitted use, accessory building necessary access, septic requirements, and fire safety requirements.

B. Construction activities in and adjacent to the riparian area shall occur in such a manner so as to avoid unnecessary excavation and/or removal of existing vegetation beyond that required for the facilities indicated in (A) above. Where vegetation removal beyond that allowed in (A) above cannot be avoided, the site shall be replanted during the next replanting season to avoid water sedimentation. The vegetation shall be if indigenous species in order to maintain the natural character of the area.

C. A maximum of 25% of existing natural vegetation may be removed from the riparian area.

The primary mitigation measures employed to protect both riparian areas and wildlife habitat will be avoidance of waterways and minimum disturbance of vegetation. There will be no riparian vegetation removed from the energy facility site.

A minimum amount of riparian vegetation must be removed during construction and maintenance of the transmission lines as required by state regulations requiring the clearing of transmission corridors. PGE will not clear any more riparian vegetation than is necessary for the permitted transmission corridors and lines, including clearing required for fire safety purposes. (See Section D.8 of the Order.)

CCZO § 1550 Site Design Review:

The standards applicable in Site Design Review are set forth in CCZO § 1550.12, which addresses buffering, screening and fencing, and CCZO § 1550.13, which provides general standards of approval.

CCZO § 1550.12 Landscaping: Buffering, Screening and Fencing:

These standards address protection of existing vegetation, use of buffering and screening to reduce impacts on adjacent uses that are of a different type, and standards for fencing and walls.

CCZO § 1550.12.A contains requirements for preservation or replacement of on-site vegetation. With respect to protection of vegetation, the energy facility site has no significant vegetation to protect. Some vegetation will need to be cleared from the existing

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12 The information in the ASC provides the information that might otherwise be requested under CCZO §§ 1550.10 and 1550.11, to the extent necessary to address site design issues.
Port Westward to BPA Allston Substation transmission corridor under either transmission option. Clearing a new transmission right-of-way will be necessary for the Trojan option. Replacement or replanting of trees is not appropriate because the corridors must be kept clear of vegetation that could create a safety or fire hazard for overhead transmission lines. Development of the facility will be subject to the requirements of an NPDES stormwater permit for construction activities. Compliance with that permit will ensure that best management practices are used to minimize erosion during construction and that disturbed soils are revegetated following construction.

CCZO § 1550.12.B and C contain requirements for buffering and screening. The purpose of the buffering and screening standards is to reduce impacts on adjacent uses that are of a different type. The energy facility does not have to be buffered or screened from adjacent uses, because adjacent uses are not of a different type. They are similarly industrial in nature and would not be adversely affected by the energy facility. The transmission line is buffered by the required clearing of the corridor on either side of the transmission line.

The screening requirements do not appear applicable in the absence of differing uses. To the extent that any portion of the facility would require screening under CCZO § 1550.12.C.1. or C.5, a variance from that standard is justified for the reasons discussed with respect to the variance for the fencing standard.

CCZO § 1550.12.C.2-C.3 are also not applicable because the new use is not located downhill from adjoining uses and because the parking facilities at the energy facility site will not be adjacent to a public road. CCZO § 1550.12.C.4 is permissive, not mandatory.

CCZO § 1550.12.D includes fencing requirements. As discussed above, PGE requested a variance from the fencing requirements of the County’s design review standards, to allow a chain link security fence around the energy facility site without slats or a continuous evergreen hedge. PGE will be required to comply with applicable fence height requirements.

CCZO § 1550.12.E requires that “where natural vegetation or topsoil has been removed in areas not occupied by structures or landscaping, such areas shall be replanted to prevent erosion.” The erosion control plan for the NPDES stormwater construction permit will address revegetation following construction.

**CCZO § 1550.13 Standards for Approval:**

A. **Flood Hazard Areas:** See CCZO § 1100, Flood Hazard Overlay Zone. All development in Flood Hazard Areas must comply with State and Federal Guidelines.

The energy facility site is not subject to the Flood Hazard Overlay Zone. The transmission lines will also be located outside flood hazard areas.

B. **Wetlands and Riparian Areas:** Alteration of wetlands and riparian areas shall be in compliance with State and Federal laws.
Section E.1.d of the Order reviews PGE’s compliance with the state’s wetlands regulations. In the Order, the Council directs the Division of State Lands to issue a Removal/Fill Permit for the facility. Furthermore, PGE will be required to obtain all required federal approvals and comply with applicable state and federal standards for any alteration of wetlands and riparian areas.

C. Natural Areas and Features: To the greatest practical extent possible, natural areas and features of the site shall be preserved.

There are no significant natural areas or features on the energy facility site. Within the transmission corridor, PGE will comply with this standard to the extent possible, given safety standards requiring that transmission corridor be kept clear of vegetation that could interfere with overhead transmission lines.

D. Historic and Cultural sites and structures: All historic and culturally significant sites and structures identified in the Comprehensive Plan, or identified for inclusion in the County Periodic Review, shall be protected if they still exist.

The site is not included in the Comprehensive Plan as a historically or culturally significant site, nor is the site included on the list for periodic review. Consequently, this standard is inapplicable.

E. Lighting: All outdoor lights will be shielded so as not to shine directly on adjacent properties and roads.

All outdoor lighting will be shielded except as required by safety requirements. Columbia County also recommended as a condition for the site certificate that PGE submit its outdoor lighting plan to the County, showing how it will manage glare from the energy facility. This recommendation is incorporated into a condition in the Order.

F. Energy Conservation: Buildings should be oriented to take advantage of natural energy saving elements such as the sun, landscaping and landforms.

Solar orientation is not a factor in the energy use of the facility. The energy facility site is relatively flat; therefore, slopes are not a consideration in determining building orientation.

G. Transportation Facilities: Off-site auto and pedestrian facilities may be required by the Planning Commission, Planning Director or Public Works Director consistent with the Columbia County Road Standards and the Columbia County Transportation Systems Plan.

Given the nature of the use and size of the subject tract, off-site parking will not be necessary. PGE has worked with the County and with other projects locating at the Port Westward Industrial Park to reach agreement on the improvements that are necessary and the means of financing those improvements. The agreement between the County and PGE with respect to transportation-related mitigation measures and improvements is addressed in Section D.13 of the Order.
CCZO § 1504 Variances:

The transmission towers will be about 120 feet in height. Pursuant to CCZO § 304.7 the maximum height for non-farm or non-forest uses in the PA-38 zone is 50 feet. Pursuant to CCZO § 407.5, the maximum height for non-farm uses in the FA-19 zone is 35 feet. The towers would exceed both of these height limitations by more than 25 percent. A major variance will therefore be required for towers in those zones.

PGE has requested a major variance from the fencing requirement of CCZO § 1550.12.D.3 to allow use of a chain link fence, without slats or a continuous evergreen hedge, around the energy facility site.

In addition, PGE has requested a major variance from the minimum loading standards required of “manufacturing, wholesale, storage or hospital” uses. The number of loading spaces required is far in excess of what is needed for this particular use. Unlike most industrial uses, the energy facility will not rely on trucks for delivery of principal raw materials (natural gas and water) or for shipment of its end product (electricity).

CCZO § 1504.1.A. provides that a variance shall be granted only when all the following conditions and facts exist:

1. The granting of the variance will not be detrimental to the public safety, health, or welfare, or injurious to other property.

Transmission towers: Allowing 120-foot transmission towers in an existing transmission corridor and in the immediate vicinity of the existing substation and related transmission facilities will not be detrimental to public safety, health, or welfare, or injurious to other property. For the most part, the towers will be placed in the existing Port Westward to BPA Allston Substation corridor near existing towers. Although the Summit interconnection will require new towers in a new corridor, the affected area is already impacted by a number of other transmission lines and corridors. PGE will use shorter H-frame towers where the interconnection crosses beneath existing transmission lines. Compliance with all safety and environmental standards will be required during both construction and operation.

Fence: Allowing the use a chain link fence around the energy facility site will not be detrimental to public safety, health, or welfare, or injurious to other property. Security around an energy facility site requires that the surrounding area be visible in order to detect any unauthorized persons attempting to enter the site. A chain link fence provides security with good visibility and better promotes public safety, health and welfare than fencing or landscaping that interferes with visibility. A chain link security fence surrounds the Beaver Generating Plant.

Loading: Allowing a reduction in the number of loading spaces will not be detrimental to public safety, health, or welfare, or injurious to other property. Two spaces will be adequate
for the needs of this particular industrial use, which, unlike similarly sized industrial uses,
will require minimal deliveries and no shipping.

2. The conditions upon which the request for a variance is based are unique
to the property for which the variance is sought and are not applicable
generally to other property.

Transmission towers: Without a variance the corridor would need to avoid land zoned PA-38
and FA-19. It would be impossible to avoid the PA-38 zone because the Port Westward tract
is surrounded by PA-38 zoned land. Similarly, it would be impossible to avoid the FA-19
zone because both the existing corridor and the east side of the BPA Allston Substation (to
which the Summit interconnection will connect) are zoned FA-19. Locating the new line
entirely within an existing corridor will avoid additional impacts on surrounding areas and
protect wildlife habitat and other values. Therefore, a unique situation exists that is not
present on or applicable to other properties or uses.

Fence: The chain link fence will be located around the energy facility site. The need for the
fence is related to the unique security requirements of an energy facility.

Loading: As discussed above, the loading requirements are unique to the energy facility use
of this site. An electric generating facility fueled by natural gas does not need the number of
spaces required of industrial uses under the CCZO.

3 Approval of the application will allow the property to be used only for
purposes authorized by the Zoning Ordinance.

Transmission towers: Transmission lines are allowed as a conditional use in both the PA-38
and FA-19 zones. As demonstrated above, the lines meet all of the other conditional use
requirements and other provisions of the CCZO.

Fence: Allowing a chain link fence around the energy facility site will not change the
underlying use of the property, which is allowed as a conditional use in the RIPD zone.

Loading: Allowing a reduction in the number of loading spaces at the energy facility will not
change the underlying use of the property, which is allowed as a conditional use in the RIPD
zone.

4. Strict compliance with the Zoning Ordinance would create an unnecessary
hardship.

Transmission towers: Strict compliance of the height restrictions in the zoning ordinance
would create a hardship by forcing the path of the new transmission line to diverge from the
existing corridor in order to avoid crossing a PA-38 or FA-19 zone. It would be impossible
for the line to avoid an area zoned PA-38. Moreover, although the new corridor could
technically bypass the FA-19 zoned property, such an alignment would erase the benefits of
locating the new line entirely within an existing corridor, and thus create an unnecessary
hardship for both PGE and the community. It would also be impossible for the Summit interconnection to avoid an area zoned FA-19 because the east side of the BPA Allston Substation is on land zoned FA-19.

Fence: Strict compliance with the fencing requirement would allow use of a chain link fence only if it had slats and was surrounded by a continuous evergreen hedge, which would compromise PGE’s ability to provide the necessary level of security for the energy facility.

Loading: Strict compliance with the requirements with respect to loading spaces would require development of a large number of unnecessary spaces, rather than limiting development to that needed for the proposed use.

5. The granting of the variance will not adversely affect the realization of the Comprehensive Plan nor violate any other provisions of the Zoning Ordinance.”

Transmission towers: Granting the variance would not adversely affect the realization of the Comprehensive Plan or violate the CCZO. Rather, granting a variance that allows the new line to remain entirely within the existing corridor will advance the wildlife habitat and open space protections in the Comprehensive Plan and CCZO. Furthermore, because the towers would primarily consist of a single pole structure, the visual impact on surrounding areas, also protected through the Comprehensive Plan, would be minimal. Granting the variance for the Summit interconnection furthers the productive use of an area already developed for energy transmission.

Fence: The energy facility site is zoned for industrial use. The Port Westward Industrial Park has an existing generating facility with a perimeter fence similar to the fence requested for the energy facility site. The chain link fence will provide the requisite level of security without adversely affecting the objectives of the Comprehensive Plan or violating the CCZO.

Loading: Granting the variance is consistent with the Comprehensive Plan and CCZO in that it would allow a conditional use while reducing the impact of that use by avoiding the development of unnecessary loading spaces.

For these reasons, the Council finds that variances from the height limitations in CCZO §§ 304.7 and 407.5, the fence requirement in CCZO § 1550.12.D.3, and the loading requirements in CCZO § 1418.3 are appropriate.

IV. COLUMBIA COUNTY COMPREHENSIVE PLAN

The County's Comprehensive Plan contains policies that address overall planning goals adopted by the County. Although the policy statements do not contain specific substantive criteria, we discuss the relevant polices below for purposes of completeness.13

13 This section addresses the elements of the Comprehensive Plan identified by the County, as well as the Forest
Forest Lands

Goal: To conserve forest lands for forest uses.

The energy facility and associated transmission line satisfy the goal of conserving forest lands. The facility itself will be located in the RIPD zone near the center of a tract of land that has been designated for industrial use. Therefore, the energy facility will have no direct impact on forestlands.

The Allston option and the first segment of the Trojan option will be located within the existing Port Westward to BPA Allston Substation right-of-way. The right-of-way is located primarily on forestlands zoned PF-76. The new line will be located within the boundaries of the corridor. It will require only limited clearing. The Summit interconnection will require the creation of new right-of-way in the immediate vicinity of the BPA Allston Substation. This area is already heavily impacted by existing transmission lines, corridors, and easements. The Trojan option also requires the creation of new right-of-way from the vicinity of the BPA Allston Substation to the Trojan Nuclear Plant. This would require clearing a corridor up to 125 feet wide. This option satisfies the goal of conserving forest land, however, because the alignment is parallel and adjacent to the existing BPA Allston Substation to Trojan BPA corridor.

Agriculture

Goal: To preserve agricultural land for agricultural uses.

The energy facility is not located on agricultural lands; therefore, this goal is not applicable to that element of the project. The transmission line will be located on segments of both PA-38 and FA-19 zoned land. The existing transmission lines are a low-impact use that does not affect farming activities on the ground except where a tower is located. The same will be true of the new line. Therefore, PGE would meet this goal by preserving agricultural lands for agricultural uses.

Policies: It shall be a policy of the County to:

4. Protect agricultural lands from non-farm encroachments.

With the exception of the Summit interconnection and the area in the immediate vicinity of the BPA Allston Substation under alignment 4, the only portion of the transmission line that will cross agriculturally-zoned properties (PA-38 or FA-19) is between Port Westward and BPA Allston Substation, where the transmission line will be located entirely within an existing PGE easement. The interconnection and alignment 4 will require the creation of new right-of-way in the immediate vicinity of the BPA Allston Substation. This area is already heavily impacted by existing transmission lines, corridors, and easements. Further, to the extent any farm use does occur, it can continue under the overhead transmission lines. Consequently, the transmission line and associated towers do not represent an additional encroachment onto agricultural lands.

Lands, Agriculture, Open Space, and Air, Land, and Water elements.
15. Permit non-farm/non-forest uses only when not in conflict with agricultural or forestry activities.

Due to their height and limited width, transmission lines do not interfere with agricultural activities (with the exception of aerial spraying). The transmission lines and associated towers will either be located within an existing transmission corridor or in the immediate vicinity of the BPA Allston Substation when in agriculturally-zoned areas. Existing agricultural and forestry uses would not face constraints not already present by virtue of the existing transmission lines in the corridor. Moreover, the forestry uses in the vicinity of the substation are already constrained by parcel size and the presence of wetlands.

17. Allow non-farm uses in accordance with ORS 215.283.

ORS 215.283(1)(d) provides that "utility facilities necessary for public service" are allowed on EFU zoned lands. The transmission lines are a utility facility necessary for public service.

Economy

Goals:

1. To strengthen and diversify the economy of Columbia County and insure stable economic growth.

The energy facility represents a substantial increase in the energy resource base of Columbia County. Moreover, the energy facility is expected to operate for at least 30 years, providing a stable contribution to the County’s economy. The energy facility will employ about 25 employees during operation, and is expected to operate for at least 30 years. Additionally, during construction, the facility would generate about 300 jobs.

2. To utilize Columbia County's natural resources and advantages for expanding and diversifying the economic base.

The energy facility will take full advantage of the Columbia River to expand the County's industrial base. The energy facility will withdraw water from the Bradbury Slough under a water right held by the Port of St. Helens. The energy facility will make use of that resource, combined with the use of existing facilities and infrastructure on the Port Westward site (including an interstate natural gas pipeline, water intake, rail access, and transmission corridor), to expand and diversify the County’s economic base.

Policies: It shall be a policy of the County to:

1. Encourage the creation of new and continuous employment opportunities.

2. Encourage a stable and diversified economy.

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14 Such uses may be established as provided in ORS 215.275. Compliance with ORS 215.275 is addressed below in Section VI.
The facility is consistent with these policies for the reasons discussed above with respect to the goals of the Economy element.

8. Reserve valuable industrial sites for industrial use.

The facility takes advantage of a valuable industrial site reserved for industrial use.

11. Coordinate with public utility companies to insure energy supplies are available to areas programmed for development and redevelopment.

The Port Westward Exception Statement states that adequate electrical service exists to support a high level of industrial development at Port Westward Industrial Park. Moreover, the energy facility will generate much more electricity than it will consume.

**Industrial Development**

**Goals:**

1. To strengthen and diversify the economy of Columbia County and insure stable economic growth.

2. To utilize Columbia County’s natural resources and advantages for expanding and diversifying the industrial base.

3. To encourage industrial growth in Columbia County to diversify its economy. New industry should locate to take maximum advantage of existing public and private investments.

The facility meets these goals for the reasons discussed above with respect to the Economy element of the Comprehensive Plan.

**Policies:** It shall be a policy of the County to establish, implement, and maintain an industrial program which:

1. Encourages the creation of new and continuous employment opportunities.

2. Encourages a stable and diversified economy.

The energy facility will employ about 25 employees during operation, and is expected to operate for at least 30 years. Additionally, during construction, the facility will generate about 300 jobs.

5. Recognizes the existence of sites suitable to be developed as deep-water ports but are not needed at this time.

The Port Westward Exception Statement recognizes Port Westward as a deep-water port site. PGE anticipates using the existing dock facilities during construction of the facility. Further, the energy facility will not affect the availability of the dock for other future industrial uses at Port Westward.
9. Assures land which is already used as industrial or irrevocably committed to industry shall be so designated.

The Port Westward Exception Statement reflects that the Port Westward Industrial Park is designated for industrial use due to its historic use for industrial purposes and its suitability for future industrial use. The Exception Statement identifies potential future uses of the property. All of the uses listed are industrial uses that would take advantage of the surrounding natural resources or facilities.

11. Directs industries that are either land extensive, resource related, marine related, and/or incompatible with urban populations to those sites which are appropriate for the use and are currently zoned for that use.

The facility is consistent with this policy for the reasons discussed above with respect to the Economy element of the Comprehensive Plan.

12. Is consistent with the exception statements for those sites requiring an exception to the applicable resource goal.

The County took an exception to Statewide Planning Goal 3, Agriculture to zone land outside of the Urban Growth Boundary as industrial land. The Port Westward Exception Statement is included as part of the Columbia County Comprehensive Plan. The Exception Statement discusses the site's existing character and facilities, history, and surrounding uses. The Exception Statement demonstrates that the Port Westward site is ideally suited for further industrial development that is consistent with its proximity to the Columbia River as well as other existing facilities. The energy facility is consistent with the identified goals and future uses of the Port Westward tract.

Resource Industrial Development

Goal: It is a goal of the County to provide for industrial development on rural lands when such development can be shown to support, utilize, or in some manner be dependent upon, the natural resources of the area.

The RIPD zone provides a zone that conditionally allows industrial development on rural lands provided they use the surrounding natural resources. As discussed above with respect to the CCZO §§ 681 and 683, the energy facility will use the natural resources available at the Port Westward tract consistent with the Resource Industrial Development element of the Comprehensive Plan. For the reasons outlined above with respect to the Industrial Development element and CCZO §§ 681 and 683, the facility is consistent with the policies of the Resource Industrial Development element as well.

Public Facilities and Services

Goal: To plan and develop a timely, orderly, and efficient arrangement of public services as a framework for urban and rural development.

Policies: It shall be the County policy to:
1. Require that adequate types and levels of public facilities and services be provided in advance of or concurrent with development.

The facility meets this policy for the reasons discussed in more detail above with respect to CCZO § 683.1. Given the nature of the facility and existing and future on-site facilities and services, the energy facility will not impose a significant burden on public utility providers. The domestic water, cooling water, sanitary sewage, and wastewater would be handled at the energy facility site and in the immediate area and will not place any additional burdens on local providers. The Columbia County solid waste system currently has capacity to handle all project solid waste generated by the energy facility. Further, the energy facility will not have a significant impact upon police or fire services, health care, public education, or housing, due to the limited number of full time employees. PGE and the County have also entered into an agreement regarding the construction and funding of any necessary transportation system improvements. (See Section D.13) The transmission line will not require public facilities or services.

4. Encourage new development on lands within urban growth boundaries or built and committed exception areas.

The Port Westward Industrial Park is a committed exception area.

13. Support a level of fire safety and service in all areas of the county sufficient to minimize the risk of fire damage to life and property.

The energy facility will have on-site fire protection services and the transmission corridor will be cleared. The facility will not require expansion of public systems or services.

**Transportation**

**Goal:** The creation of an efficient, safe, and diverse transportation system to serve the needs of Columbia County residents.

**Policies:**

3. Appropriate off-site improvements to county roads shall be required whenever development results in a major increase in traffic on an existing county road.

The energy facility will have about 25 full-time employees distributed over three shifts. Thus, the operation of the facility will not result in a major increase in traffic on an existing county road. PGE and the County have entered into an agreement with respect to necessary improvements to off-site county roads and PGE’s share in funding the cost of those improvements. (See Section D.13)

5. Industrial uses shall be encouraged to locate in such a manner that they may take advantage of the water and rail transportation systems which are available to the County.
Location of the energy facility at the Port Westward site meets this policy. The Energy facility will use the dock and rail line during construction. As a practical matter, however, operation of the facility likely will not make significant use of rail transportation because the principal materials used by PGE’s process, natural gas and water, will be supplied by pipe from nearby sources and the principal product generated by PGE's process is "shipped" via transmission line. The location of the facility takes advantage of an existing municipal/industrial water right held by the Port of St. Helens and an existing water intake facility, which is a permitted point of diversion under the Port’s water right.

Open Space, Scenic and Historic Areas, and Natural Resources

Open Space

The open space element of the County's Comprehensive Plan indicates that about 90 percent of Columbia County is comprised of lands in forest, farm, recreational, or other open space use. Rather than designate specific locations as open space resources, the County adopted a general goal to conserve open space. The energy facility achieves this goal because it will be located on a tract committed to industrial development, rather than agricultural or other open space uses.

Although the transmission lines will cross both agricultural land and forestlands, neither the lines nor the poles would be inconsistent with this goal. With the exception of new corridor necessary to interconnect the Summit circuit at the east side of the BPA Allston Substation, the entire transmission line will be located within an existing transmission corridor under the Allston option. The same is true of the first segment of the Trojan option. This minimizes any impact of the line on open spaces. Although the Trojan option will require establishment of a new transmission right-of-way, the disruption to open spaces will be limited by aligning the corridor immediately adjacent to an existing BPA line.

Surface Mining

The Comprehensive Plan identifies significant mineral and aggregate sites that were being mined as of 1984. The plan also identifies areas where mineral deposits are generally located. None of the identified aggregate or mineral areas is located within the analysis area of the facility.

Energy Sources

The Comprehensive Plan lists the Trojan Nuclear Plant, the Beaver Generating Plant, and the natural gas wells in the Mist area as the primary sources of energy in the County. The Trojan Plant is no longer producing energy. The energy facility will significantly enhance the electrical generating capacity of the County.

Habitat

Sixteen fish and wildlife habitat types and three state sensitive and/or federal species of concern are known to occur within the defined project analysis area. Mitigation measures
will be employed to avoid significant potential adverse impacts on the species and habitat. The mitigation measures comply with ODFW's fish and wildlife habitat mitigation goals.

The transmission line crosses through Peripheral Big Game Habitat and small areas of Big Game Habitat. The transmission corridor and transmission towers will not unduly conflict with the habitat areas, however. The proposed single support poles would cause minimal ground disturbance and therefore, would not impede animal foraging or migration patterns. The overhead transmission line will not interfere with movement of big game and will actually improve foraging habitat because clearing under and around the transmission line will provide an area for big game to feed.

**Natural Areas**

The County's inventory of natural areas identifies sites based upon their ecological significance. Based upon significance, the sites are identified as either (1A), (1B) or (1C) areas. Neither the energy facility nor the transmission line or towers would affect any of the inventoried sites.

**Wetlands**

The Comprehensive Plan identifies a 5,000-acre area around and including Port Westward as Wetland Area Site 7. As required by Goal 5, the County identified the economic, social, environmental, and energy consequences of protecting the wetlands. The expansion of industrial activities at Port Westward was specifically identified as a potential conflicting use, and the findings determined that allowing the conflicting industrial development will have a positive impact on the economy in Columbia County. The County also found that the relevant site would be protected as a riparian area due to its proximity to the Columbia River and the Bradbury Slough. For that reason, the site was excluded from the Identified Wetland Areas on the overlay zone.

Even though the site is excluded from the County's official Wetland Area Overlay, wetlands on the facility site will be protected and enhanced in compliance with state and federal regulations. There are five wetland sites located within the plant site area. Although a minimal amount of filling will be necessary, the facility will avoid impacts to wetlands to the maximum extent practical. Part of the energy facility and about 14 towers will need to be constructed in wetlands, requiring about 0.43 acres of fill. Pursuant to a Removal/Fill Permit, PGE will implement a comprehensive mitigation plan at a single site to compensate for any necessary loss of wetland values at the energy facility site and along the transmission corridor. All fill and mitigation activities will comply with state and federal laws.

**Riparian Areas**

Protection of riparian areas is addressed above in the discussion of CCZO § 1170.

**Historic and Cultural Areas**

The County has inventoried and classified areas of historic significance throughout the county. The facility will not affect any of the sites identified in the County Inventory Document or any of the (1C) sites listed in the Comprehensive Plan. No other significant
historic or cultural areas have been identified at the energy facility site or along the
transmission corridors.

Scenic Resources

Scenic resources will be protected to the greatest extent possible. Highway 30 from Deer
Island to Rainier is identified as a scenic resource in the Comprehensive Plan. Under the
Trojan option, the transmission line will cross Highway 30 near the Trojan Nuclear Power
Plant. The impact on the scenic resource will be negligible because of the existing
transmission lines crossing Highway 30 at that location.

Air, Land, and Water Resources

Goal: To maintain and improve land resources and the quality of the air and water of
the County.

The facility will satisfy this goal through its compliance with all applicable federal and state
standards.

Policies: It shall be the policy of Columbia County to:

1. Work with the appropriate State and Federal agencies to insure that State and
   Federal water, air, and land resource quality standards are met.

The energy facility will be equipped with Best Available Control Technology to comply with
state and federal air quality standards. PGE will obtain both an Air Contaminant Discharge
Permit and Title V Operating Permit from the Department of Environmental Quality. PGE
will maintain air quality in the County by operating in compliance with these permits.

The energy facility will also comply with state and federal water quality requirements. PGE
will obtain an NPDES Stormwater Discharge General Permit to address erosion control for
construction activity. As part of this Order, the Council directs DEQ to issue a Water
Pollution Control Facilities permit for an On-Site Sewage Disposal System. PGE will
discharge cooling tower blowdown and process water from the energy facility to the
Columbia River through an outfall to be developed by the Port of St. Helens. The outfall will
be subject to an individual NPDES permit from DEQ.

2. Comply with all applicable State and Federal standards and regulations regarding
   noise pollution.

The energy facility will comply with state noise regulations.

V. CITY OF RAINIER

A. RAINIER ZONING ORDINANCE

Under the Trojan option, the transmission line will pass through property near the southern
end of the City of Rainier before connecting with the Trojan Nuclear Plant. The property is
within the boundaries of the City of Rainier, but outside the city's Urban Growth Boundary.
This portion of Rainier is zoned Watershed Zone (W). The intent and purpose of this zoning designation is to recognize and protect the watershed as a source of drinking water for the residents of the City of Rainier. Rainier Zoning Ordinance (RZO) § 3.11. In the W zone "limited public uses may be considered on a case-by-case basis as a conditional use, subject to approval as a Type III Decision under the Conditional Use provisions of Section 6.4."
RZO § 3.11. "Public use" is defined in RZO § 1.3 as "a use intended or used for a public purpose by the city, school district, county, state, or other public agency, or a public utility."
The transmission line will be owned and operated by a public utility; therefore, the line qualifies as a public use and can be considered on a case-by-case basis as a conditional use.

RZO § 6.4 Conditional Uses

A. The use is listed as a conditional use in the zone which is currently applied to the site;

In the W zone, a public use, such as the transmission line, may be considered a conditional use.

B. The characteristics of the site are suitable for the proposed conditional use considering the size, shape, location, topography, existence of improvements and natural features.
The area through which the transmission line would pass is suitable for the transmission line in light of existing improvements. The transmission line will be located in a new right-of-way immediately adjacent to an existing BPA transmission corridor.

C. The proposed conditional use is adequately served by public facilities;
The transmission line will not require any additional public facilities.

D. The proposed conditional use will comply with the applicable policies of the Rainier Comprehensive Plan; the Oregon Highway Plan, and the Columbia County or Rainier Transportation System Plans; and Compliance with the relevant Rainier Comprehensive Plan policies is discussed in detail below. The transmission line will not permanently interfere with any roads or transportation systems. Consequently, the proposed use complies with both the Oregon Highway Plan and the Transportation System Plans.

E. The proposed conditional use will not create any hazardous or adverse conditions.
PGE is required to comply with all applicable safety standards for the new transmission line and consult with the appropriate local fire districts and agencies to ensure that all necessary safety precautions are taken. The transmission line will not create any hazardous or adverse conditions.
RZO § 6.7 Design Review

It is not clear that RZO § 6.7 is applicable to transmission towers. This section is, however, addressed below for purposes of completeness.\(^\text{15}\)

F. That grading and contouring of the site will minimize the possible adverse effect of grading and contouring on the natural vegetation and physical appearance of the site.

Any grading required for the towers will be minimal. PGE will revegetate any areas in the transmission corridor disturbed by construction activities consistent with its NPDES 1200-C permit.

G. That the proposed location and design of walls, fences, berms, signs, and lighting does not adversely impact surrounding properties.

The transmission line will not require walls, fences, or berms. Any lighting and signs will be consistent with safety requirements.

B. CITY OF RAINIER COMPREHENSIVE PLAN

The City's Comprehensive Plan contains policies that address overall planning goals adopted by the City. Although the policy statements do not contain specific substantive criteria, we discuss the relevant policies below for purposes of completeness.

Goal 4 (Forest lands): To conserve forest lands for forest use.

Policy 2: The portion of the city-owned watershed which extends outside of the UGB shall be managed for protection of water quality values.

The transmission line and towers are consistent with the protection of water quality values. The line itself would have no impact on water quality. The placement of towers would involve minimal and temporary soil disturbance. Although the transmission line corridor will be cleared of trees for safety reasons, the corridor will be revegetated, have minimal impervious surface (only the tower footings), and would not involve storage or disposal of wastes or other materials that could threaten water quality.

Goal 5 (Open Spaces, Scenic and Historical Areas, and Natural Resources): To conserve open spaces and protect natural and scenic resources.

Policy 1: The City shall defer to state or federal agencies with inventories and permit programs affecting wetlands, aquifers and wildlife habitat.

Impacts to wetlands will be subject to the permitting requirements of both the U.S. Army Corps of Engineers and the Oregon Division of State Lands (the latter is addressed by the

\(^{15}\) The criteria in RZO § 6.7.A-.E. are not applicable in that the transmission line will not require or provide public or private facilities, impact any streets or pedestrian ways (including the safety, level of traffic, or circulation thereon). The transmission line will not require off-street parking or loading facilities, common areas, buildings, or landscaping.
Council elsewhere in this Order). The facility will also be subject to the Council’s Fish and Wildlife Habitat standard, OAR 345-022-0060 and the Council’s Threatened and Endangered Species standard, OAR 345-022-0070. The transmission line would not have any impact on aquifers.

Policy 7: The City shall identify and promote the preservation and protection of historically and culturally significant structures, sites, objects and districts within Rainier. The City's Comprehensive Plan identifies specific historical sites and PGE has confirmed with the City that the City has not identified any other historically or culturally significant structures, sites, objects, and districts within Rainier. Under the Trojan option, the transmission corridor would run through the Watershed zone. The sites identified in the Comprehensive Plan are not located in the City's Watershed zone. If any artifacts or cultural resources are encountered during construction of the transmission line, work in the vicinity will be stopped until a qualified archaeologist can evaluate the significance of the resources. If the resources are significant, work would not commence again in the vicinity of the find until PGE demonstrates that it has complied with Oregon State Historic Preservation Office (SHPO) permit requirements. (See Section D.11 of the Order.)

Goal 6 (Air, Water, and Land Resources Quality): To maintain and improve the quality of the air, water and land resources of the State.

Policy 4: The city-owned watershed which extends outside of the Urban Growth Boundary shall be zoned Watershed (W). The Zoning Ordinance shall restrict uses to maintain the watershed. As a public use, the transmission line qualifies as a conditional use under the zoning ordinance. As demonstrated above, the transmission line satisfies each of the criteria applied to conditional uses in the watershed zone.

Policy 6: Planning Commission review and approval of new development, particularly in steep slope areas, shall focus on proper control of drainage to manage storm runoff and erosion and protect the water quality of the streams.

PGE will use Best Management Practices to limit and control stormwater runoff during and following construction of the transmission line, including revegetation of any disturbed areas in the transmission corridor.

Goal 7 (Areas Subject to Natural Disasters and Hazards): To protect life and property from natural disasters and hazards.

Policy 2: No construction of structures or roads will be allowed in known slide hazard areas, on slopes exceeding 20 percent, or in flood hazard and drainage ways without evidence submitted by a registered engineer to document that the proposed construction can be accomplished safely.
If any towers will be located in known slide hazard areas, flood hazard areas, or drainage  
ways, or on slopes exceeding 20 percent, PGE will be required to provide a geotechnical  
report prepared by a registered engineer establishing that such construction can be  
accomplished safely prior to commencing construction. (See Section D.5 of the Order.)  

Policy 3: The Zoning Ordinance shall include a Geologic Hazard Overlay with  
provisions for the review of development proposals on all lands within identified slide  
hazard areas or on slopes exceeding 20 percent.

Policy 3 is implemented through the Geologic Hazard Overlay in RZO § 4.3. For  
development within the Geologic Hazard Overlay, a proposal and geotechnical report must  
be submitted to the City Engineer. Although the Watershed zone was not mapped with the  
Geologic Hazard Overlay (because the development allowed in the zone is very limited), the  
City has advised PGE that a geotechnical report would probably be required for development  
in the Watershed zone.

Policy 4: The Zoning Ordinance shall include a Flood Hazard Overlay. The overlay  
shall meet the standards which are necessary for the City’s inclusion in the National  
Floodplain Insurance Program.

Policy 4 is implemented by the Flood Hazard Overlay in RZO § 4.4. The segment of the  
transmission line within the Watershed zone will not be located in a flood hazard overlay.

Policy 5: The Zoning Ordinance shall establish a Creek Greenway overlay that shall  
extend 50 feet from the creek centerline of Beaver Creek, Nice Creek, Fox Creek and  
Owl Creek. Within the Creek Greenway overlay, regulations shall limit  
encroachment when there may be changes in stream flow patterns due to increased  
storm water runoff.

Policy 5 is implemented by the Creek Greenway Overlay in RZO § 4.5. Fox Creek is the  
only creek in the vicinity of the transmission line within the City of Rainier that is subject to  
the Creek Greenway Overlay. Fox Creek runs roughly parallel to and several hundred feet  
east of the transmission line.

Goal 11 (Public Facilities and Services): to plan and develop a timely, orderly and  
efficient arrangement of public facilities and services to serve as a framework for  
urban and rural development.

Policy 17: Utility facilities such as power substations, sewer pump stations, water  
tanks and other similar uses shall be allowed as conditional uses in all zones except  
the Watershed.

The transmission line does not appear to be a "utility facility" as that term is used in this  
policy. The line is not a facility “such as” those described. Each of the uses listed requires  
sizable surface development. The transmission line will involve only the minimal permanent
ground disturbance associated with the transmission towers. It will not adversely impact water quality values protected by the Watershed zone.

VI. DIRECTLY APPLICABLE STATE PROVISIONS

OAR 345-022-0030(2)(b)(A) requires the facility to comply with new or amended statewide planning goals, LCDC administrative rules, and land use statutes that are directly applicable to the energy project under ORS 197.646(3).

A. DIRECTLY APPLICABLE ADMINISTRATIVE RULES

In 1994, LCDC adopted new land use rules and amended planning goals for farm and forest zones, as set forth at OAR 660, Divisions 6 and 33. Columbia County has not yet amended its Comprehensive Plan to implement the 1994 revisions. Pursuant to ORS 197.646(3), the amended LCDC rules are directly applicable for purposes of this application. The new rules do not apply to the energy facility, but only to those portions of the transmission line within the PA, PF, or FA zones:

1. Division 6 (Goal 4 Forest Lands)

The following rules apply to those portions of the transmissions lines within the PF or FA zones.

OAR 660-006-0025 - Uses Authorized in Forest Zones

(4) The following uses may be allowed on forestlands subject to the review standards in section (5) of this rule:

(q) New electric transmission lines with right of way widths of up to 100 feet as specified in ORS 772.210. * * *;

With the exception of the Summit interconnection, the Allston option will be located within an existing right-of-way established prior to the 100-foot width limitation. The existing Port Westward to BPA Allston Substation transmission line currently uses half the width of the existing 250-foot right-of-way. The remaining 125 feet of width remains available for the new line. As an existing corridor, it does not violate the 100-foot limitation provided in this rule. However, even if the rule did apply to a new transmission line in an existing right-of-way, the new line would meet the standards for an exception to Goal 4, as more fully described below.

Under the Trojan option, the new line will be located within the existing right-of-way for about 9 miles before diverging near the BPA Allston Substation to connect to the Trojan Nuclear Plant. The second segment of the Trojan option and the Summit interconnection to the BPA Allston Substation, will both require a new right-of-way through forest lands. This new right-of-way will be limited to 125 feet in width. An exception to Goal 4 will be required.

PGE has confirmed this interpretation with the City.
(5) A use authorized by section (4) of this rule may be allowed provided the following requirements or their equivalent are met. These requirements are designed to make the use compatible with forest operations and agriculture and to conserve values found on forest lands:

(a) The proposed use will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands;

Electrical transmission lines are a low intensity use that has a limited impact on surface uses such as farming or forestry. This is especially true when a new line can be located within or near an existing corridor. The Allston option and the first segment of the Trojan option will be located within the existing utility right-of-way between Port Westward and the BPA Allston Substation. The surrounding farm and forest uses must already honor the corridor's boundaries. Any limitation of resource practices within this area already exists. Consequently, a new line within this corridor will not significantly change existing practices or increase costs beyond current levels.

The second segment of the Trojan option will require the creation of a new 125-foot right-of-way between the existing Port Westward to BPA Allston Substation corridor and the Trojan Nuclear Plant. A new 125-foot right-of-way will also be needed for the interconnection of the Summit line at the BPA Allston Substation. The second segment of the Trojan option will be parallel and immediately adjacent to the existing BPA Trojan to BPA Allston Substation right-of-way and will, therefore, be in an area that is already impacted by a utility corridor. The overall effect on forest harvesting and management is thereby minimized because the overall disturbance area is limited to a relatively narrow section of the County's forest lands. The Summit interconnection will be in the immediate vicinity of the BPA Allston Substation in an area that is already developed with and impacted by transmission lines, corridors, and easements. Therefore, a new electrical transmission line and 125-foot corridor would neither significantly change forest management practices nor increase their cost.

(b) The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel; and

The new transmission lines will be located within a corridor cleared of vegetation that could interfere with the line or present a fire danger due to proximity to the line.

(c) A written statement recorded with the deed or written contract with the county or its equivalent is obtained from the land owner which recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Forest Practices Act and Rules for uses authorized in subsections (4)(e), (m), (s), (t) and (w) of this rule.

PGE will (as holder of the transmission corridor easement) enter into a contract with the County recognizing the right of adjacent landowners as required by this provision. (See Section D.4 of this Order.)
The following siting criteria or their equivalent shall apply to all new dwellings and structures in forest and agriculture/forest zones. These criteria are designed to make such uses compatible with forest operations and agriculture, to minimize wildfire hazards and risks and to conserve values found on forest lands. A governing body shall consider the criteria in this rule together with the requirements in OAR 660-006-0035 to identify the building site:

1. Dwellings and structures shall be sited on the parcel so that:
   
   (a) They have the least impact on nearby or adjoining forest or agricultural lands;
   
   (b) The siting ensures that adverse impacts on forest operations and accepted farming practices on the tract will be minimized;
   
   (c) The amount of forestlands used to site access roads, service corridors, the dwelling and structures is minimized; and
   
   (d) The risks associated with wildfire are minimized.

The transmission towers are considered structures for purposes of this rule. With the exception of the Summit interconnection, all of the transmission towers required by the Allston option (and first segment of the Trojan option) will be located within an existing 250 foot-wide corridor. Placing the towers in this corridor ensures that they will have the least possible impact on surrounding forest or agricultural uses. The towers required for the second segment of the Trojan option will be located within a new right-of-way. The new right-of-way will be parallel and immediately adjacent to an existing BPA transmission corridor. The area is already disturbed by an existing right-of-way. A new right-of-way is also required for the Summit interconnection, which will also be in an area that is already disturbed by the BPA Allston Substation and related transmission facilities. For that reason, any additional impacts on forestry or agricultural uses within the area will be greatly reduced. The new corridor would be developed to the minimum width necessary, further reducing impacts on surrounding forest management activities. The new transmission lines will be located within a corridor cleared of vegetation that could interfere with the line or present a fire danger due to proximity to the line.

OAR 660-006-0035 - Fire Siting Standards for Dwellings and Structures

The following fire siting standards or their equivalent shall apply to new dwelling or structures in a forest or agriculture/forest zone:

3. The owners of the dwellings and structures shall maintain a primary fuel-free break area surrounding all structures and clear and maintain a secondary fuel-free break area in accordance with the provisions in "Recommended Fire Siting Standards for Dwellings

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17 Subsections (1), (2), (4), (5), and (6) of this rule apply only to dwellings. Therefore, they are not applicable to the proposed transmission line. Only subsection (3) is applicable to this Application.
The towers will meet the fire break requirement of subsection (3) because they will each be located within a cleared corridor that varies in width from 250 feet to 125 feet.

2. Division 33 (Agricultural Land)

The Port Westward tract is surrounded by land zoned PA-38. As a result, one segment of the transmission line will be located within the PA-38 zone.

OAR 660-033-0120 - Uses Authorized on Agricultural Lands

OAR 660-033-0120 (Table 1) identifies "utility facilities necessary for public service" among the uses allowed, provided they comply with the standards listed in OAR 660-033-0130. OAR 660-033-0120 (Table 1) lists "utility facilities necessary for public service" as an “R” or allowable use on agricultural lands on both high-value and other farmland subject to the minimum standards found in OAR 660-033-0130(16). As explained in the discussion of OAR 660-033-0130(16) below, the transmission line qualifies as a use necessary for public service because in order to transmit electricity from the new energy facility to a regional substation it will be necessary to cross at least some agricultural land.

OAR 660-033-0130 - Minimum Standards Applicable to the Schedule of Permitted and Conditional Uses

(16) A facility is necessary if it must be situated in an agricultural zone in order for the service to be provided.

The segment of the transmission line within the PA-38 zone qualifies as a necessary facility under this provision because the transmission line must be partially located within an agricultural zone in order to transmit electricity from the energy facility to a regional substation. The Port Westward site is completely surrounded by PA-38 zoned properties. Electricity from the energy facility cannot be conveyed to any location within the state of Oregon without crossing an agricultural zone.

B. ORS 215.275

In 1999, the Legislature enacted ORS 215.275 into law to clarify when a utility facility is “necessary for public service” as that phrase is used in 215.283(1)(d). Subsequent to the passage of this law, any applicant wishing to site a utility facility on EFU lands pursuant to

OAR 660-033-0090 provides that uses on high-value farmland shall be limited to those specified in OAR 660-033-0120. See response to OAR 660-33-120, below. OAR 660-033-0100 is not applicable because this application does not involve the creation of new parcels.

Transmission towers over 200 feet in height are subject to different standards. None of new towers will exceed 200 feet.

The criteria for demonstrating compliance with (16) are the same as those identified and addressed in the discussion of ORS 215.275, below.
ORS 215.283(1)(d) must establish that the facility is in fact “necessary for public service” according to the standards set forth in ORS 215.275.

"A utility facility established under ORS 215.283(1)(d) is necessary for public service if the facility must be sited in an exclusive farm use zone in order to provide the service.” ORS 215.275(1). ORS 215.275(2) provides as follows:

To demonstrate that a utility facility is necessary, an applicant for approval under ORS 215.283 must show that reasonable alternatives have been considered and that the facility must be sited in an exclusive farm use zone due to one or more of the following factors:

(a) Technical and engineering feasibility;
(b) The proposed facility is locationally dependent. A utility facility is locationally dependent if it must cross land in one or more areas zoned for exclusive farm use in order to achieve a reasonably direct route or to meet unique geographical needs that cannot be satisfied on other lands;
(c) Lack of available urban and non-resource lands;
(d) Availability of existing rights-of-way;
(e) Public health and safety; and
(f) Other requirements of state or federal agencies.

A short segment of the transmission line that would connect the generating facility to either the BPA Allston Substation or the Trojan Nuclear Plant is located within the PA-38 zone. The transmission line is locationally dependent because it must cross PA-38 zoned lands in order to achieve a reasonably direct transmission route. The Port Westward tract is surrounded on three sides by PA-38 zoned land, and on the fourth by the Columbia River. PA-38 zoned properties border Port Westward on the south and the west. The Bradbury Slough is located directly east of the tract, but Crims Island, which is zoned PA-38 as well, is located across the slough. North of the tract, the Columbia River separates Port Westward from the State of Washington. In order to provide energy via a transmission line to any location in Oregon (beyond the Port Westward tract itself), the line must cross EFU land.

The transmission line also qualifies as a utility facility necessary for public use under factor (d). Although located in the PA-38 zone, the transmission line will be located entirely within the existing Port Westward to BPA Allston Substation transmission corridor. Rather than creating a new right-of-way, PGE has chosen to mitigate impacts on surrounding PA-38 zoned lands by using the only existing right-of-way leading from the Port Westward tract.

**ORS 215.275(4) and (5): Restoration and Mitigation Requirements**

ORS 215.275(4) requires the owner of a utility facility approved under ORS 215.283(1)(d) to be responsible for restoring, as nearly as possible to its former condition, any agricultural land and associated improvements that are damaged or otherwise disturbed by the siting, maintenance, repair, or reconstruction of the facility. PGE has developed mitigation
measures to address any soil disturbance of agricultural and non-resource lands. These mitigation measures will be implemented to ensure that the EFU land is restored, as nearly as possible, to its former condition.

As required by ORS 215.275(5), the mitigation measures would prevent any significant change in accepted farming practices and would ensure that the new transmission line and associated towers do not cause a significant increase in the cost of farm practices on the surrounding farm lands. Any constraints on farming activities already exist because of the existing transmission facilities in the area.

VII. EXCEPTION TO STATEWIDE PLANNING GOAL 4

Under the Goal 4 implementing rule, OAR 660-006-0025(4), certain uses may be allowed on forest lands subject to the review standards of OAR 660-006-0025(5). The uses allowed include: “New electric transmission lines with right of way widths of up to 100 feet as specified in ORS 772.210.” OAR 660-006-0025(4)(q). PGE has, however, requested Council approval for a transmission corridor with a width of 125 feet, 25 feet wider than the right-of-way allowed under OAR 660-006-0025(4)(q).²¹

PGE has requested a “reasons” exception under ORS 469.504(2)(c) and OAR 345-022-0030(4)(c). The exception is to allow a new transmission corridor with a width of 125 feet in the County’s PF-76 and FA-19 zones. The new transmission corridor is principally from BPA Allston Substation to Trojan, but would also include new corridor required to connect a transmission line for the Summit Energy Facility to the BPA Allston Substation. A Goal 4 exception does not appear to be required in order to construct transmission facilities on forest land within PGE’s existing right-of-way from Port Westward to the BPA Allston Substation. These facilities would, however, also qualify for an exception to Goal 4 for the reasons described in this section.

Pursuant to ORS 469.504(2)(c), the Council may take an exception to a statewide planning goal if it finds that the following standards are met:

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

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

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

²¹ The proposed transmission line could comply with the review standards of OAR 660-006-0025(5) as discussed in section VI.A.1.
A. Reasons justify why the state policy embodied in the applicable goal should not apply.

The stated purpose of Goal 4 is:

“To conserve forest lands by maintaining the forest land base to protect the state’s forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest trees as a leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.” OAR 660-015-0000(4).

Goal 4 provides that “locationally dependent uses” are allowed subject to review standards. Goal 4 also states: “Maximum utilization of utility rights-of-way should be required before permitting new ones.” The transmission line and interconnection are locationally dependent uses. Just as it is not possible to develop a transmission line that avoids EFU land, it is also not possible to develop a transmission line that connects to the regional grid yet avoids forest land. The BPA Allston Substation is on land zoned PF-76 and the east side of the substation (on which the vacant bay is located) is zoned FA-19. PGE is using existing utility right-of-way where it is available (from Port Westward to BPA Allston Substation).

From BPA Allston Substation to Trojan, the existing BPA right-of-way has no room for additional transmission lines; therefore, new right-of-way is necessary. The existing 125-foot right-of-way is occupied by two 230 kV transmission lines in a double circuit configuration on lattice towers. The towers are designed for double circuit and cannot carry additional lines. The 125-foot right-of-way cannot accommodate additional towers (given the required separation between high voltage transmission lines).

In support of its assertion that the BPA Allston Substation to Trojan transmission line segment is necessary, PGE submitted the “Programmatic System Impact Study for Generators and Canadian Import in the I-5 Corridor,” prepared by PowerWorld Corporation for BPA in March 2002. The report analyzed the impact on the transmission line grid of 14 proposed power projects. Each of the proposed projects was added incrementally to the circuit model in the same order as the interconnection requests to BPA. PWGP is No. 14, the last project on the list. For each incremental step, the study looked at the normal power flows over the grid and the power flows under likely aberrant conditions (“contingency”).

The study found that the first proposed generating project in the queue, the Summit Project, makes necessary the proposed transmission line segment from the BPA Allston Substation to Trojan with continuation to St. Mary’s Substation in Portland. (The segment from Trojan to St. Mary’s Substation is not a related or supporting facility for PWGP.) That means the transmission line segment from the BPA Allston Substation to Trojan would be needed even if PWGP were not built. Therefore, building the transmission line as part of PWGP meets not only the need of that project but helps solve a larger grid overload problem.
PGE is seeking to minimize disruption of forest practices by locating the new right-of-way immediately adjacent to the existing BPA transmission corridor, i.e. in an area where forest practices are already limited by the presence of high voltage transmission lines and towers. PGE will construct transmission structures that can carry two circuits. From Port Westward to BPA Allston Substation, the transmission structures will carry the transmission line for the Port Westward Generating Project as well as for the Summit Energy Project. From BPA Allston Substation to Trojan, the structures will have the capacity to handle an additional transmission line (i.e. in addition to the line for the Port Westward Generating Project). This will maximize the ability to use that right-of-way in the future, before developing additional right-of-way.

Thus, the transmission corridor generally meets the Goal 4 requirement as a locationally dependent use and for maximum use of existing rights-of-way. The issue under Goal 4 is the width of the transmission right-of-way.

As noted above, OAR 660-006-0025(4)(q) allows: “New electric transmission lines with right of way widths of up to 100 feet as specified in ORS 772.210.” ORS 772.210 recognizes, however, that a right-of-way of 100 feet is not always adequate. The statute concerns the condemnation of land by public utilities. ORS 772.210(1)(b) authorizes any public utility or electrical cooperative association to:

“Condemn [lands within the state] not exceeding 100 feet in width for its lines (including poles, towers, wires, supports and necessary equipment therefor) and in addition thereto, other lands necessary and convenient for the purpose of construction of service facilities; and if the lands are covered by trees which are liable to fall and constitute a hazard to its wire or line, any public utility organized for the purpose of building, maintaining and operating a line or poles and wires for the transmission of electricity for lighting or power purposes, may condemn such trees for a width not exceeding 300 feet, as may be necessary or convenient for such purpose.” (Emphasis added).

In other words, the statute cited in the Goal 4 rule as a basis for limiting rights-of-way to a width of 100 feet actually provides for clearing of trees in a much wider area where “the lands are covered by trees which are liable to fall and constitute a hazard” to the transmission line. By locating the new transmission lines in or adjacent to existing transmission corridors, PGE is effectively reducing the need to clear additional trees on forest land, because “danger trees” (trees with a potential to damage transmission lines) would already be removed adjacent to PGE’s existing Port Westward to BPA Allston Substation transmission line and BPA’s existing BPA Allston Substation to Trojan lines. Thus, PGE will not need to clear trees to the maximum width of 300 feet allowed by ORS 772.210. However, PGE needs to a right-of-way of 125 feet to remove danger trees and maintain the flexibility to locate the
transmission line within the corridor in a manner that reduces conflicts with wetlands and
other significant resources.22

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

Environmental Consequences

The environmental consequences of development of the transmission corridor are evaluated
in detail in the ASC, which includes exhibits that evaluate, among other things, soil
conditions, and potential impacts to wetlands, fish and wildlife habitat, threatened and
endangered species, and visual quality and aesthetics. The applicable Council standards have
been met and PGE has established that any adverse impacts will be mitigated as required by
the Council’s rules and other applicable state laws.

Economic Consequences

The development of the transmission line will create a positive economic impact in that it
will transmit energy to the regional grid from the Port Westward Generating Project. The
additional right-of-way width will enhance PGE’s ability to manage vegetation in the
transmission corridor and, specifically, to remove trees that pose a threat to the transmission
line.

The primary adverse economic impact will be a loss of potential timber harvest in areas of
the transmission corridor that are being managed for commercial timber production in the
additional 25 feet of right-of-way that would be allowed through this exception request.
Oregon law accounts for damage to forest growth and timber in the condemnation of utility
right-of-way. ORS 772.210(4). Thus, the property owner (or the owner of the timber, if
different from the owner of the land) will be compensated for that damage.

Social Consequences

The construction of the transmission lines is not anticipated to have significant adverse social
consequences. The transmission lines do not create any additional demands for public
facilities or services. In addition, development of the transmission lines does not represent
the introduction of a new use into the area. The transmission lines will be placed in or

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22 Condemnation of trees under ORS 772.210 is inadequate as an alternative to acquisition of right-of-way for
several reasons. As an initial matter, PGE would need to identify the particular hazard trees needing removal
and then prove that the identified trees are "liable to fall and constitute a hazard." The time potentially required
for condemnation after PGE identifies a risk is unacceptable. Moreover, PGE would need to pursue
condemnation of trees not only at the time of construction but repeatedly over the life of the transmission line as
new trees mature and become "hazard trees." Condemnation of trees does not give the condemnor rights in the
underlying land. Thus, PGE would not be able to prevent the property owner from planting or replanting trees
in or near locations where hazard trees have already been removed.
adjacent to existing transmission corridors; thus, the development of the transmission lines will not significantly alter farm or forest practices or other social, household or recreational activities in the area.

Energy Consequences

The transmission line would provide a connection to the regional grid for the Port Westward Generating Project. As discussed above, a 125-foot right-of-way will allow PGE to maintain adequate control over vegetation that may present a danger to the transmission facilities (mature conifers, in particular). Furthermore, the requested exception will contribute to a more reliable energy system, as shown in the BPA system impact study. There are no significant adverse energy consequences of the proposed use.

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

The BPA Allston Substation to Trojan transmission line would be located parallel to and immediately adjacent to the existing BPA right-of-way. Thus, the BPA transmission lines are an adjacent use. The only measures necessary to ensure compatibility with the BPA right-of-way are those needed to maintain adequate separation between BPA power lines and the new transmission line.

The other principal adjacent use is commercial timber management. As discussed above, the exception arises in large measure from the need to minimize conflicts with activities that may allow “danger trees” adjacent to the transmission line. In other words, PGE’s control and management of a 125-foot wide right-of-way would itself be the primary means of mitigating conflicts. Clearing of vegetation under the transmission line serves not only to protect the line, but also to reduce the danger of fire should a transmission line be damaged.

Finally, there are some residences in the area of the transmission corridor. Any incompatible structures or uses in the transmission right-of-way will be removed as part of the development of the transmission facilities and property owners will be compensated when PGE acquires the right-of-way. In addition, mandatory conditions in the site certificate will require that PGE: (1) restore reception of radio and television at residences or commercial establishments in the primary reception area to the level present prior to operations of the transmission line; (2) design, construct and operate the transmission line in accordance with the requirements of the National Electrical Safety Code; and (3) 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 lifetime of the line. OAR 345-024-340090(2) also requires that the transmission line be designed, constructed and operated so that the induced currents will be as low as reasonably achievable.

VII. FEDERAL LAND MANAGEMENT PLANS

The energy facility and the majority of the transmission lines will not be located on lands under federal land use jurisdiction. At least one transmission line will connect to the BPA Allston Substation, which is located on federal land. BPA has not adopted a federal land
management plan for the substation. As a result, there are no federal consistency
requirements applicable to the Facility.

VIII. CONCLUSION

Based on the foregoing analysis and subject to conditions proposed in the Order, the Council
finds that an exception to Goal 4 is justified and that PGE has demonstrated compliance with
all other applicable criteria in the County’s and the City’s acknowledged comprehensive
plans and land use regulations that are required by the statewide planning goals and were in
effect on the date the application was submitted, as well as any statewide planning goals,
LCDC administrative rules and land use statutes directly applicable to the facilities under
ORS 197.646(3).
MEMORANDUM OF UNDERSTANDING
THE CLIMATE TRUST AND PORTLAND GENERAL ELECTRIC COMPANY
CARBON DIOXIDE STANDARD IMPLEMENTATION
MONETARY PATH PAYMENT REQUIREMENT

[If the parties agree, they may substitute a bond for the letter of credit.]

THIS MEMORANDUM OF UNDERSTANDING (this “Agreement”) is entered into as of the ___ day of _______, 200_, by and between Portland General Electric Company (the “Project Owner”) in its capacity as owner of the Port Westward Generating Project, and The Climate Trust (“The Trust”).

RECITALS

1. The Project Owner intends to design, finance, construct, own and operate a natural gas-fired combined-cycle combustion turbine electric generating facility with a base-load net electric power output of about 560 MW and a peaking net electric power output of about 650 MW near the City of Clatskanie, Oregon. The facility, together with its ancillary systems, shall be referred to herein as the “Project.”

2. The State of Oregon requires new energy facilities to meet a carbon dioxide emissions standard as described in OAR 345-024-0550 through -0710.

3. As a condition to the siting of the Project, the Project Owner is required to provide offset funds (“Offset Funds”) and selection and contracting funds (“Selection and Contracting Funds”) to The Trust. In accordance with Section D.15 of the Site Certificate for the Port Westward Generating Project (the “Site Certificate”) that the Oregon Energy Facility Siting Council (the “Council”) granted to the Project Owner, dated November 8, 2002, the Project Owner shall establish a third-party letter of credit (the “Letter of Credit”) in The Trust’s name, acceptable to the Council, sufficient to meet the monetary path requirement. Under the terms and conditions of this Agreement, the monetary path payments will be disbursed to The Trust as specified in the Site Certificate and then by The Trust as specified in OAR 345-024-0710.

4. The Trust is a qualified organization within the meaning of OAR 345-001-0010(46).

NOW, THEREFORE, in consideration of the premises and mutual promises herein contained, the parties hereto agree as follows:

1. Initial Base-Load Monetary Path Payment and Initial Power Augmentation Monetary Path Payment.
1.1 The Project Owner has used the monetary path payment requirement calculations described in Section D.15 of the Site Certificate to calculate the Initial Base-Load Monetary Path Payment amount and has submitted them to the Oregon Office of Energy (the “Office”) for verification. The Trust acknowledges that the calculation of the Initial Base-Load Monetary Path Payment in fourth quarter, 2002 dollars presented in Appendix A is correct and consistent with the Site Certificate.

1.2 The Project Owner has used the monetary path payment requirement calculations described in Section D.15 of the Site Certificate to calculate the Initial Power Augmentation Monetary Path Payment amount and has submitted them to the Office for verification. The Trust acknowledges that the calculation of the Initial Power Augmentation Monetary Path Payment in fourth quarter, 2002 dollars presented in Appendix A is correct and consistent with the Site Certificate.

1.3 The Site Certificate requires that the Selection and Contracting Funds portion of both the Initial Base-Load Monetary Path Payment and the Initial Power Augmentation Monetary Path Payment be adjusted for inflation to the date of disbursement to The Trust using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, published in the then current “Oregon Economic and Revenue Forecast” (the “Index”). The Project Owner shall pay to The Trust the Inflation-Adjusted Selection and Contracting Funds in the amount of $____________ contemporaneously with execution of this Agreement. The Trust acknowledges that the calculations of the Inflation-Adjusted Selection and Contracting Funds presented in Appendix A are correct and consistent with the Site Certificate.

1.4 Based on the verified calculations of the Initial Base-Load Monetary Path Payment and the Initial Power Augmentation Monetary Path Payment set forth in Appendix A, the Project Owner shall pay to the Trust $___________ in Offset Funds in fourth quarter, 2002 dollars pursuant to Section 1.6 below. The Site Certificate requires that the Offset Funds portion of both the Initial Base-Load Monetary Path Payment and the Initial Power Augmentation Monetary Path Payment be adjusted for inflation from the fourth quarter, 2002, to the date of disbursement to The Trust using the Index.

1.5 The Project Owner shall establish a Letter of Credit in the amount of $___________ in favor of The Trust, in the form attached as Appendix B to this Agreement. The effective date of the Letter of Credit shall be ________, 200_. The Trust shall be entitled to draw the entire amount of the Offset Funds secured by the Letter of Credit. The Project Owner shall pay the costs of establishing and maintaining the Letter of Credit and shall pay any transaction fees assessed by the issuer of the Letter of Credit.

1.6 The Trust shall have the right to draw Offset Funds upon execution of a letter of intent to acquire an offset project. At the sole discretion of The Trust, the amount of Offset Funds drawn may correspond to the entire amount of Offset Funds available. The Trust may request less than the entire amount of the Offset Funds, but in no case
shall the cumulative amount of all requests exceed the total Monetary Path Payment Requirement, as adjusted for inflation.

2. Year One True-Up Base-Load Monetary Path Payment and Year One True-Up Power Augmentation Monetary Path Payment.

2.1 The Project Owner shall, within 30 days of filing its Year One Test reports to Council, calculate the Year One True-Up Base-Load Monetary Path Payment, if any, and the Year One True-Up Power Augmentation Monetary Path Payment, if any, as required by Section D.15 of the Site Certificate. The Project Owner shall submit these calculations to the Oregon Office of Energy for verification, as required by Section D.15 of the Site Certificate.

2.2 Both the Year One True-Up Base-Load Monetary Path Payment and Year One True-Up Power Augmentation Monetary Path Payment, if any, shall be adjusted for 2002 dollars from the calendar quarter of the Site Certificate approval to the Disbursement Date using the Index.

2.3 If any Year One True-Up Base-Load Monetary Path Payment and/or Year One True-Up Power Augmentation Monetary Path Payment is due, the Project Owner shall pay this amount directly to The Trust within 30 days of filing its Year One Test report to the Council.

2.4 In no case shall the calculations of this Section 2 cause the funding for the Initial Base-Load Monetary Path Payment and the Initial Power Augmentation Monetary Path Payment made available to The Trust by the Letter of Credit to diminish.

3. Periodic Five-Year Power Augmentation Monetary Path Payments.

3.1 Each five years after beginning commercial operation, the Project Owner shall report the annual average hours of usage of power augmentation to the Office as required by Section D.15 of the Site Certificate.

3.2 If the Office of Energy determines that there are excess emissions for the five-year report period, the Office will specify the amount of Selection and Contracting Funds and Offset Funds that the Project Owner shall make available to The Trust. Each Periodic Five-Year Power Augmentation Monetary Path Payment, if any, shall be adjusted for inflation from fourth quarter, 2002, to the Disbursement Date using the Index.

3.3 For any Periodic Five-Year Power Augmentation Monetary Path Payment, the Selection and Contracting Funds shall equal 20 percent of the value of any Offset Funds up to the first $250,000 (in 2002 dollars) and 4.286 percent of the value of any Offset Funds in excess of $250,000 (in 2002 dollars).
3.4 The Project Owner shall disburse to The Trust the specified amount of any Periodic Five-Year Monetary Path Payment within 30 days of its notification by the Office of the amount that the Project Owner owes.

4. **Undertaking by The Trust.**

4.1 The Trust shall use the Initial Base-Load Monetary Path Payment and Initial Power Augmentation Monetary Path Payment, as well as any Year One True-Up Base-Load Monetary Path Payment, Year One True-Up Power Augmentation Monetary Path Payment, and/or Periodic Five-Year Power Augmentation Monetary Path Payments in accordance with OAR 345-024-0710.

4.2 With respect to the Offset Funds portions of any Initial Base-Load Monetary Path Payment, Initial Power Augmentation Monetary Path Payment, Year One Base-Load Monetary Path Payment, Year One Power Augmentation Monetary Path Payment, and/or Periodic Five-Year Power Augmentation Monetary Path Payments, The Trust shall spend at least 80 percent of the Offset Funds for contracts to implement offsets, and may use up to 20 percent of the Offset Funds for monitoring, evaluation, administration, and enforcement of contracts to implement offsets.

4.3 The Selection and Contracting Funds portions of any Initial Base-Load Monetary Path Payment, Initial Power Augmentation Monetary Path Payment, Year One Base-Load Monetary Path Payment, Year One Power Augmentation Monetary Path Payment, and/or Periodic Five-Year Power Augmentation Monetary Path Payments shall compensate The Trust for its costs of selecting offsets and contracting for the implementation of offsets and administrative costs related to operating The Trust as a qualified organization.

4.4 The Trust shall use its best efforts to remain a qualified organization, as defined in OAR 345-001-0010(45), until The Trust has used all funds received from the Project Owner.

4.5 The Trust shall notify the Project Owner of its intent to draw on the Letter of Credit at least one week before making a draw.

5. **Limited Obligation of Project Owner.**

The Trust acknowledges that, pursuant to OAR 345-024-0710(3), that the Project Owner and the Project shall have no obligation with regard to offsets for the Project other than to make available to The Trust the total amount of the monetary path payments.

6. **Limited Participation by Project Owner in The Trust Decision Making.**

The Project Owner shall appoint one nonvoting member to the Board of Directors of The Trust for a term lasting until The Trust has completed the contracting for the
offset funds provided by the Project Owner. The Project Owner shall have no
approval rights over The Trust’s offset contracts, disbursement of Offset Funds, or
other day-to-day operations of The Trust.

7. **Project Owner Agreement to Indemnify and Hold The Trust Harmless.**

The Project Owner agrees to defend, hold harmless and indemnify The Trust from and against any and all claims, costs, liabilities, and expenses of any nature whatsoever, including reasonable attorneys' fees, resulting from or arising out of any failure by the Project Owner to make any payments required by this Agreement, or to establish the Letter of Credit described in Section 1.5 in a timely manner; PROVIDED, that the maximum amount of the Project Owner's liability to The Trust for claims, costs, liabilities and expenses, including attorneys' fees, arising out of the failure to make a payment or establish the Letter of Credit required by this Agreement in a timely manner shall not exceed twice the differential between the amount payable to The Trust on a particular date and the amount actually paid or made available to The Trust on or before that date. FURTHER PROVIDED, The Trust must make reasonable efforts to mitigate any losses, liabilities or expenses for which it seeks indemnification from the Project Owner.

8. **General Provisions.**

8.1 **Governing Law:** This Agreement shall be governed by and construed in accordance with the laws of the State of Oregon. Any ambiguity that may arise under this Agreement shall be given a fair and reasonable construction in accordance with the intention of the parties and without regard to which party caused or is deemed to have caused such ambiguity to exist.

8.2 **Amendments and Waivers:** This Agreement may not be modified, supplemented, altered or amended, nor any provision hereof or rights hereunder be waived, except by an instrument in writing designated as an amendment of or waiver under this Agreement and signed by both parties. The waiver of any particular breach or default hereunder shall not constitute a waiver of any other breach or default. Failure or delay by any party to enforce any provision of this Agreement shall not in any way be construed as a waiver of such provision, nor shall it prevent such party from thereafter enforcing each and every provision of this Agreement.

8.3 **Entire Agreement:** This Agreement constitutes the entire agreement between the parties hereto as to the matters set forth herein, and all prior proposals, commitments, understandings and agreements, whether oral or in writing, as to such matters are superseded by this Agreement.

8.4 **Assignment:** The rights of the Project Owner under this Agreement may be assumed by any entity that acquires an ownership interest in the Project. Upon such assumption, such entity shall be deemed to be a party to this Agreement. The Trust may not assign this Agreement without the prior consent of the Project Owner and
Council; provided that, if the proposed assignee is a “qualified organization” as defined in OAR 345-001-0010(45), the Project Owner shall not unreasonably withhold such consent.

8.5 Third-Party Beneficiaries: Nothing in this Agreement, whether express or implied, is intended to confer any rights or remedies on any persons other than the parties hereto and their respective authorized successors and permitted assigns.

IN WITNESS WHEREOF, the parties have caused this Memorandum of Understanding to be executed by their respective duly authorized representatives, as of the day and year first above written.

PORTLAND GENERAL ELECTRIC COMPANY           THE CLIMATE TRUST

By: ________________________________          By: ________________________________
Name: ________________________________          Name: ________________________________
Title: ________________________________          Title: ________________________________
Date: ________________________________          Date: ________________________________

APPENDIX A:  CALCULATION OF INITIAL BASE-LOAD AND POWER AUGMENTATION MONETARY PATH PAYMENT REQUIREMENT [NOT INCLUDED IN SITE CERTIFICATE]

APPENDIX B:  FORM OF LETTER OF CREDIT
APPENDIX B TO MEMORANDUM OF UNDERSTANDING

[FORM OF CLIMATE TRUST LETTER OF CREDIT]

[If a bond is used, the form of the bond shall be substantially in the form of the letter of credit.]

[Date]

BENEFICIARY:
The Climate Trust
516 SE Morrison Street, Suite 300
Portland, OR 97214
Attn: Mike Burnett, Executive Director

IRREVOCABLE LETTER OF CREDIT NO. ______

At the request and for the account of ______, we hereby issue in your favor our Irrevocable Letter of Credit No. _____ (this “Letter of Credit”) for U.S. $______ (the “Stated Amount”).

We are informed that this Letter of Credit is issued to you pursuant to the Site Certificate for the Port Westward Generating Project, dated November 8, 2002.

Subject to the provisions herein, funds under this Letter of Credit are available against presentation of this Letter of Credit and your draft drawn at sight and marked “Drawn on ______ Letter of Credit No. _________,” accompanied by a written certificate in the form of Annex A hereto with the blanks duly completed and purportedly signed by your Executive Director and dated as of even date with the draft.

Subject to the provisions herein, we hereby authorize you to draw hereunder in an amount not to exceed the Stated Amount from the date hereof through our close of business on the date on which the Stated Amount is reduced to zero by a drawing hereunder.

Partial drawings are permitted under this Letter of Credit. The amount available to be drawn under this Letter of Credit shall be automatically reduced by the amount of any drawings hereunder. Upon the payment of drawings that in the aggregate equal the Stated Amount, we shall be fully discharged of our obligation under this Letter at Credit and we shall not thereafter be obligated to make any further payments under this Letter of Credit.

Presentation of this Letter of Credit, such draft and such certificate shall be made at _____, by physical delivery of such documents to such office. _____ will accept physical delivery of such documents either by hand delivery, by mail, by overnight courier, or by any other commercially-accepted means of delivery. Our only obligation with regard to a drawing under this Letter of Credit shall be to examine such draft and certificate and to pay in accordan
terethewith if the same conforms to the terms and conditions of this Letter of Credit, and we shall not be obligated to make any inquiry in connection with the presentation of this Letter of Credit, the draft and the certificate.
If any request for payment hereunder is presented in compliance with the terms of this Letter of Credit to us at such address by ____ (local time) on any Business Day, payment will be made at or before _____ (local time) on ______, and if such request is so presented to us ______ (local time) on any Business Day, payment will be made at or before ______.

If a demand for payment made hereunder does not, in any instance, conform to the terms and conditions of this Letter of Credit, we shall give you prompt notice that your demand for payment was not effected in accordance with the terms and conditions of this Letter of Credit, stating the reasons therefore and that we will, upon your instructions, hold any documents at your disposal or return the same to you. Upon being notified that the demand for payment was not effected in conformity with this Letter of Credit, you may attempt to correct any such nonconforming demand to the extent you are able to do so; provided, however, that any draft or document presented to correct such nonconforming demand must be presented on or before the Termination Date.

Communications with respect to this Letter of Credit shall be in writing and shall be addressed to us at ______, specifically referring therein to this Letter of Credit by number.

As used herein, a “Business Day” shall mean any day other than Saturday or Sunday or a day on which banking institutions in the City of __________ are authorized or required by law to close.

Presentation of any certificate hereunder shall be deemed to be authentic if signed by a person purporting to be your Executive Director.

This Letter of Credit and the attached Annex A set forth in full our undertaking, and such undertaking shall not in any way be modified, amended, amplified, or limited by reference to any document, instrument or agreement referred to in this Letter of Credit, except only the certificates referred to herein, and any such reference shall not be deemed to incorporate herein by reference any document, instrument or agreement except for such certificates.

___________ hereby engages solely with The Climate Trust that drafts drawn hereunder and in compliance with the terms of this Letter of Credit will be duly honored upon presentation to us by our prompt payment to you of the amount specified in the certificate accompanying such draft.

This Letter of Credit and the attached Annex A shall be subject to the provisions (to the extent that such provisions are not inconsistent with this Letter of Credit) of the Uniform Customs and Practices for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500. To the extent that the provisions of this Letter of Credit are not covered by such Uniform Customs and Practices, this Letter of Credit shall be governed by and enforced and construed in accordance with the laws of the State of Oregon.
[LETTERHEAD OF THE CLIMATE TRUST]

DRAW CERTIFICATE

IRREVOCABLE LETTER OF CREDIT NO.

The undersigned, the Executive Director of The Climate Trust (the “Beneficiary”) hereby certifies to _______ (the “Issuing Bank”) with reference to the Irrevocable Letter of Credit No. ___________ (the “Letter of Credit”) issued by the Issuing Bank in favor of the Beneficiary (any capitalized term used herein and not otherwise defined shall have the respective meaning set forth in the Letter of Credit) that:

1. The Beneficiary is making a drawing under the Letter of Credit pursuant to the Memorandum of Understanding dated _______, 200__, between The Climate Trust and Portland General Electric Company (the “MOU”) in the amount of $__________ (the “Drawing Amount”);

2. The Drawing Amount hereunder does not exceed the Stated Amount reduced by all previous drawings under the Letter of Credit; and

3. The Drawing Amount is not more than the amount that the Climate Trust is entitled to draw at this time under the terms of the MOU.

The Beneficiary hereby irrevocably authorizes and directs the Issuing Bank to pay the Drawing Amount in immediately available funds to The Climate Trust, Attention: Executive Director, by sending such payment by wire transfer to:

_________________________

IN WITNESS WHEREOF, the Beneficiary has executed and delivered this certificate as of the ____ day of ________, ____.

THE CLIMATE TRUST, as Beneficiary

By: ____________________________
    Name:
    Executive Director
ATTACHMENT B.1, SITE CERTIFICATE, PWGP

Expiration Date: 31-Mar-2012
Permit Number: DRAFT
File Number: 111764
Page 1 of 8 Pages

WATER POLLUTION CONTROL FACILITIES PERMIT

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue, Suite 400, Portland, OR 97201
Telephone: (503) 229-5263

Issued pursuant to ORS 468B.050

Table:

<table>
<thead>
<tr>
<th>ISSUED TO:</th>
<th>SOURCES COVERED BY THIS PERMIT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portland General Electric</td>
<td>Type of Waste</td>
</tr>
<tr>
<td>121 SW Salmon Street</td>
<td>Domestic Sewage</td>
</tr>
</tbody>
</table>

SYSTEM TYPE AND LOCATION:
On-Site Sewage Treatment and Disposal

Port Westward Generating Plant
80997 Kallunki Road
City/Town: Clatskanie

Located in: Sect. 15&22, T8N,R4W
Latitude: 46.1800
Longitude: -123.1717

COUNTY: Columbia

Issued in response to Application No. 986243.
This permit is issued based on the Final Order in the Matter of the Application for a Site Certificate for the Port Westward Generating Project in lieu of a Land Use Compatibility Statement.

Robert P. Baumgartner, Water Quality Manager
Northwest Region

Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A - Waste Disposal Limitations</td>
<td>2</td>
</tr>
<tr>
<td>B - Minimum Monitoring and Reporting Requirements</td>
<td>3</td>
</tr>
<tr>
<td>C - (Not Applicable)</td>
<td>-</td>
</tr>
<tr>
<td>D - Special Conditions</td>
<td>4</td>
</tr>
<tr>
<td>E - Not Applicable</td>
<td>-</td>
</tr>
<tr>
<td>F - General Conditions</td>
<td>5-8</td>
</tr>
</tbody>
</table>

Discharge of untreated or partially treated sewage or septic tank effluent directly or indirectly onto the ground surface or into surface waters constitutes a public health hazard and is prohibited. This permit does not relieve the permittee from responsibility for compliance with any other applicable federal, state, or local law, rule or standard.
SCHEDULE A

Waste Disposal Limitations

1. The permittee is authorized to operate and maintain a domestic sewage treatment and disposal facility consisting of a bottomless sand filter unit with final disposal to the soil beneath the filter and in compliance with the following conditions:

   a) The average daily sewage flow to the SAND FILTER should be approximately fifty percent (50%) of the maximum daily or peak flow to the treatment system. The maximum peak daily flow shall not exceed the following unless otherwise approved by the Department:

<table>
<thead>
<tr>
<th>System</th>
<th>Maximum Daily Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1200 gpd</td>
</tr>
</tbody>
</table>

   b) The influent to the treatment unit shall not exceed the following maximum concentrations:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD5</td>
<td>300 mg/l</td>
</tr>
<tr>
<td>Greases and Oil</td>
<td>25 mg/l</td>
</tr>
<tr>
<td>TSS</td>
<td>150 mg/l</td>
</tr>
<tr>
<td>TKN</td>
<td>150 mg/l</td>
</tr>
</tbody>
</table>

   c) The effluent from the treatment unit shall not exceed the following maximum concentrations:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD5</td>
<td>20 mg/l</td>
</tr>
<tr>
<td>TSS</td>
<td>20 mg/l</td>
</tr>
</tbody>
</table>

   d) No discharge to surface waters is permitted. All wastewater shall be distributed into the soil beneath the filter so as to prevent:

   1) Surfacing of wastewater on the ground surface, surface runoff or subsurface drainage through drainage tile.

   2) The creation of odors, fly and mosquito breeding and other nuisance conditions.

   3) The overloading of land with nutrients or organics.

   4) Impairment of existing or potential beneficial uses of groundwater.

2. No cooling water, air conditioner water, water softener brine, groundwater, oil, hazardous materials, roof drainage, storm water runoff, or other aqueous or non-aqueous substances which are, in the judgment of the Department, detrimental to the performance of the system or to groundwater, shall be discharged into the sewage treatment system, unless specifically approved in writing by the Department.

3. No Activities shall be conducted that could cause an adverse impact on existing or potential beneficial uses of groundwater.
SCHEDULE B

Minimum Monitoring and Reporting Requirements

1. **System Monitoring Requirements**
   The permittee shall monitor the operation and efficiency of all treatment and disposal facilities. Sampling and measurements taken as required herein shall be representative of the nature of the wastewater, and shall be taken at peak usage during operation of the system. Unless otherwise agreed to in writing by the Department of Environmental Quality, data collected, and submitted shall include but not necessarily be limited to the following parameters and minimum frequencies:

   a. **Influent to the Treatment Unit**

<table>
<thead>
<tr>
<th>Item or Parameter</th>
<th>Minimum Frequency</th>
<th>Type of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewage Flow, GPD</td>
<td>Monthly Average</td>
<td>Measurement or calculation based on meter readings</td>
</tr>
<tr>
<td>Flow Meter Calibration</td>
<td>Annually</td>
<td>Verification</td>
</tr>
</tbody>
</table>

   b. **Effluent from the Sand filter;**

<table>
<thead>
<tr>
<th>Item or Parameter</th>
<th>Minimum Frequency</th>
<th>Type of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD₅</td>
<td>Semi-annually *</td>
<td>Grab</td>
</tr>
<tr>
<td>TSS</td>
<td>Semi-annually *</td>
<td>Grab</td>
</tr>
<tr>
<td>NH₃-N</td>
<td>Annually *</td>
<td>Grab</td>
</tr>
<tr>
<td>NO₃+ NO₂-N</td>
<td>Annually *</td>
<td>Grab</td>
</tr>
<tr>
<td>TKN</td>
<td>Annually *</td>
<td>Grab</td>
</tr>
</tbody>
</table>

   *Upon receipt of a five year contract in place with a maintenance entity acceptable to the Department, the Department will reduce sampling frequency during the first five years of the permit to one time, to be done during the fifth year of the permit. The Department may allow some reduction of the sampling following the fifth year of the permit if the second five year contract is in place after the end of the first five year contract.

   c. **Operations and Maintenance Activities**
   The permittee shall record in writing all observations of operation and maintenance activities as required in the Department approved Operation and Maintenance Plan on a monthly basis.

   d. **Solids Management**
   The permittee shall maintain a record of the pumping dates and quantity in gallons, of solids/wastewater pumped, and what licensed sewage disposal service company pumped the solids/wastewater, as well as the final disposal location and transfer locale (if applicable).

2. **Reporting Procedures**
Monitoring, maintenance practices, solids handling, and results shall be reported on Department approved forms. The reporting period is the calendar year. Reports must be submitted to the DEQ office listed on the face page of this permit by **January 15 following the reporting period.**
SCHEDULE D

Special Conditions

1. The permittee shall maintain on file a complete Operation and Maintenance (O&M) Plan approved by the Department. The permittee shall operate, manage and implement preventative maintenance practices or corrections at the frequencies required in the Department approved O&M Plan. Any changes to the plan must be approved by the Department.

2. In the event that a concentration limit, as specified in Schedule A, to the soil beneath the filter is exceeded, the permittee shall within fourteen (14) working days of receipt of the analytical results:
   a) Report the results to the Department;
   b) Resample to verify the results; and
   c) In the event that the resampling confirms a concentration limit violation, within thirty (30) days of confirmation, the permittee shall submit to the Department a corrective action plan to reduce the waste strength so that the concentration limits are not violated. Upon Department approval, the plan shall be implemented by the permittee.

3. The permittee shall contract with a licensed sewage disposal service as defined in Oregon Administrative Rule 340-71-100 for management of all septage/sludge.

4. All bench sheets, laboratory analysis sheets, and other records to support the data reported on the Discharge Monitoring Report (DMR) shall be prepared in ink and shall be kept on file for a period of at least 3 years from the date of the sample, measurement, report or application. Pencil entries or liquid paper corrections are prohibited and shall be considered Class I violations of the permit. Changes to any supporting records that may be required to correct the original data may be made by lining through the original data. The date of the change and the initials of the individual making the change shall be recorded in ink adjacent to the change.

5. The sand filter area including replacement area shall not be subject to activities that would, in the opinion of the Department, adversely affect the soil or the functioning of the system. This includes, but is not limited to, vehicular or animal traffic, filling or cutting, covering the area with asphalt or concrete, or subjecting the area to excessive saturation.

6. The permittee shall not be required to perform a formal hydrogeologic characterization or preliminary groundwater monitoring during the term of this permit provided that the facilities are operated in accordance with the permit conditions, and there are no apparent adverse groundwater quality impacts (complaints or other indirect evidence) resulting from the facility’s operation. If warranted, the Department may evaluate the need for or require a full assessment of the facility’s impact on groundwater quality and if necessary may reopen this permit to include groundwater monitoring parameters.

7. An adequate contingency plan for prevention and handling of spills and unplanned discharges shall be in force at all times. The permittee shall immediately notify the DEQ office listed on the face page of this permit and the local County Health Department of any occurrence of surfacing sewage. If a spill does occur that reaches or threatens to reach public waters, the permittee shall immediately notify Oregon Emergency Response (OER) at 1-800-452-0311.
SCHEDULE F

General Conditions

SECTION A. - STANDARD CONDITIONS

1. Property Rights
   The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws, or regulations.

2. Liability
   The Department of Environmental Quality, its officers, agents, or employees shall not sustain any liability on account of the issuance of this permit or on account of the construction or maintenance of facilities because of this permit.

3. Permit Actions
   After notice by the Department, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including but not limited to the following:
   a. Violation of any term or condition of this permit, any applicable rule or statute, or any order of the Commission;
   b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.

4. Transfer of Permit
   This permit shall not be transferred to a third party without prior written approval from the Department. Such approval may be granted by the Department where the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of this permit and the rules of the Commission. A transfer application and filing fee must be submitted to the Department.

5. Permit Fees
   The permittee shall pay the fees required to be filed with this permit application and to be paid annually for permit compliance determination as outlined in the Oregon Administrative Rules.

SECTION B. - OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance
   The permittee shall at all times maintain in good working order and properly operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

2. Standard Operation and Maintenance
   All waste collection, control, treatment, and disposal facilities shall be operated in a manner consistent with the following:
a. At all times, all facilities shall be operated as efficiently as possible and in a manner which will prevent discharges, health hazards, and nuisance conditions.

b. All screenings, grit, and sludge shall be disposed of in a manner approved by the Department such as to prevent any pollutant from such materials from reaching any waters of the state, creating a public health hazard, or causing a nuisance condition.

c. Bypassing of untreated waste is generally prohibited. No bypassing shall occur without prior written permission from the Department except where unavoidable to prevent loss of life, personal injury, or severe property damage.

3. **Noncompliance and Notification Procedures**

In the event the permittee is unable to comply with all the conditions of this permit because of surfacing sewage, a breakdown of equipment or facilities, an accident caused by human error or negligence, or any other cause such as an act of nature, the permittee shall:

a. Immediately take action to stop, contain, and clean up the unauthorized discharges and correct the problem.

b. Immediately notify the Department's Regional office, so that an investigation can be made to evaluate the impact and the corrective actions taken and determine additional action that must be taken.

c. Within 5 days of the time the permittee becomes aware of the circumstances, the permittee shall submit to the Department a detailed written report describing the breakdown, the actual quantity and quality of resulting waste discharges, corrective action taken, steps taken to prevent a recurrence, and any other pertinent information.

Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or the resulting liability for failure to comply.

4. **Wastewater System Personnel**

The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and monitoring requirements to assure continuous compliance with the conditions of this permit.

**SECTION C. - MONITORING AND RECORDS**

1. **Inspection and Entry**

The permittee shall, at all reasonable times, allow authorized representatives of the Department of Environmental Quality to:

a. Enter upon the permittee's premises where a waste source or disposal system is located or where any records are required to be kept under the terms and conditions of this permit;

b. Have access to and copy any records required to be kept under the terms and conditions of this permit;

c. Inspect any treatment or disposal system, practices, operations, monitoring equipment, or monitoring method regulated or required by this permit; or
d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

2. **Averaging of Measurements**

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean.

3. **Retention of Records**

The permittee shall retain records of all monitoring and maintenance information, including all calibrations, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. The Director may extend this period at any time.

**SECTION D. - REPORTING REQUIREMENTS**

1. **Plan Submittal**

Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, no construction, installation or modification of disposal systems, treatment works, or sewerage systems shall be commenced until plans and specifications are submitted to and approved in writing by the Department. All construction, installation or modification shall be in strict conformance with the Department's written approval of the plans.

2. **Change in Discharge**

Whenever a facility expansion, production increase, or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued.

3. **Signatory Requirements**

All applications, reports or information submitted to the Department shall be signed and certified by the official applicant of record (owner) or authorized designee.
SECTION E. DEFINITIONS

1. BOD$_5$ means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. FC means fecal coliform bacteria.
4. NH$_3$-N means Ammonia Nitrogen.
5. NO$_3$-N means Nitrate Nitrogen.
6. NO$_2$-N means Nitrite Nitrogen.
7. TKN means Total Kjeldahl Nitrogen.
8. Cl means Chloride.
9. TN means Total Nitrogen.
10. mg/L means milligrams per liter.
11. µg/L means micrograms per liter.
12. kg means kilograms.
13. GPD means gallons per day.
14. MGD means million gallons per day.
15. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
16. Total residual chlorine means combined chlorine forms plus free residual chlorine.
17. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
18. Composite sample means a combination of samples collected, generally at equal intervals over a 24-hour period, and apportioned according to the volume of flow at the time of sampling.
19. Week means a calendar week of Sunday through Saturday.
20. Month means a calendar month.
21. Quarter means January through March, April through June, July through September, or October through December.
Permittee: Portland General Electric  
121 SW Salmon Street  
Portland, Oregon 97204  
File Number: 111764

Manager Approval Initials: 

Source Contact: Arya Behbehani-Divers  
Telephone Number: (503) 464-8141

Source Location: 80997 Kallunki Road, Clatskanie  
County: Columbia

Permit Writer: Anne Cox  
NWR Office

Proposed Action: New WPCF-OS  
Application No.: 986243  
Date Received: 3/29/02

**Introduction**

Under Oregon Administrative Rule Chapter 340 Division 71 Section 130 (15) [OAR 340-71-130(15)], any person proposing a sand filter system to serve a commercial facility shall obtain a WPCF permit from the Department of Environmental Quality.

This area was originally evaluated for on-site sewage disposal by Columbia County onsite staff. On February 8, 2002, the Department confirmed the evaluation of this site in relation to the proposed PGE facility.

**Facility Description**

<table>
<thead>
<tr>
<th>Total Design Flow of Facility</th>
<th>1,200 Gallons per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Systems</td>
<td>One</td>
</tr>
</tbody>
</table>

**System #1**

<table>
<thead>
<tr>
<th>Date Constructed</th>
<th>To be constructed in 2002 or later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Capacity</td>
<td>1,200 gpd</td>
</tr>
<tr>
<td>Facilities Served</td>
<td>Sanitary facilities for the Port Westward Generating plant, bathrooms &amp; sinks.</td>
</tr>
<tr>
<td>Type of Treatment</td>
<td>Bottomless Sand filter</td>
</tr>
<tr>
<td>Type of Soils</td>
<td>Sand</td>
</tr>
</tbody>
</table>

Comments: Latitude and Longitude for the test pit area is 46° 10' 41", -123° 10' 16".
Groundwater
As part of this permit evaluation, a groundwater prioritization screening was done. The results of this screening is as follows:

<table>
<thead>
<tr>
<th>For new and existing drainfield systems (confirm all statements given as true or false):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Based on the depth to the water table underline the applicable statement and confirm it as either true or false:</td>
</tr>
<tr>
<td>A. Depth to water table is less than 100 feet: System design flow is less than 5,000 gpd.</td>
</tr>
<tr>
<td>B. Depth to water table is between 100 and 300 feet; system design flow is less than 10,000 gpd.</td>
</tr>
<tr>
<td>C. Depth to water table is greater than 300 feet; system design flow is less than 15,000 gpd.</td>
</tr>
<tr>
<td>2. System is not located in Groundwater Management Area where an identified contaminant of concern may be associated with domestic wastewater.</td>
</tr>
<tr>
<td>3. Drainfield is not located within: 1000 feet of an existing public or private drinking water supply well or a designated Wellhead Protection Area, And, all land within 1000 feet of the system is zoned such that no drinking water wells are likely to be installed in the future.</td>
</tr>
<tr>
<td>4. No industrial sources discharge to the system</td>
</tr>
<tr>
<td>5. There are no exceptional situations under which the system may require further groundwater review to determine the likelihood of an adverse impact.</td>
</tr>
</tbody>
</table>

If all answers are true, then no further information is needed.

If any answers are false, has additional information been gathered to satisfy the permit writer and groundwater reviewer that the facility actually has a low potential to adversely impact groundwater? Yes If yes, provide details.

All domestic wells are over the 100 foot setback required by OAR 340-71. In fact there are no wells within ½ mile of the project. The initial groundwater in this area is essentially the Columbia River and can be expected to discharge to the river.

The projected sewage flow from this facility is 1,200 gpd, equivalent to 2.6 residential homes located on a parcel of 19 acres. Sand filter effluent is expected to produce 10 mg/l BOD, 10 mg/l TSS, reduce bacteria counts by 98 to 99% and lowers total nitrogen by approximately 50%. The site meets Division 71 Onsite rules criteria for approval of a bottomless sand filter. The proposed flows will be low. The potential to impact the groundwater is negligible.

Compliance History
This is a new permit. There is no compliance history.
PERMIT DISCUSSION

Schedule A – Waste Disposal Limitations
Schedule A contains the following limitations for each system:
  x System Maximum Daily flow
  x Influent maximum concentrations (Sand Filters and RGFs only)
  x Effluent maximum concentrations
  x Prohibition of discharges to surface waters
  x Prohibition of discharge of detrimental substances to system
  x Groundwater restrictions.

Schedule B – Minimum Monitoring and Reporting Requirements
Monitoring parameters and frequencies are based on the Department monitoring matrix. Any modifications are listed as follows:

If the permittee enters into a five year maintenance contract with an acceptable entity, the Department will reduce sampling requirements to one time during that period, at the fifth year of the permit. Further reduction in sampling can be allowed after the fifth year of the permit if the permittee enters into another five year contract.

Schedule D – Special Conditions
Schedule D contains the following special conditions:
  x Operations and Maintenance Requirements
  x Septage/sludge management
  x Maintenance of vegetation in the drainfield area
  x Prohibition of activities that would adversely affect the soil or functioning of the system.
  x Contingency plan requirement
  x Groundwater Requirements

Schedule F – General Conditions
This Schedule contains general conditions that are applicable to all WPCF permits in Oregon.
Division of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
(503-378-3805)

Permit No.: 25248-FP
Permit Type: Fill
Waterway: Columbia River/Wetlands
County: Columbia
Expiration Date: 
Corps No: 

PORTLAND GENERAL ELECTRIC

IS AUTHORIZED IN ACCORDANCE WITH ORS 196.800 TO 196.990 TO PERFORM THE OPERATIONS DESCRIBED IN THE REMOVAL/FILL APPLICATION SUBMITTED AS PART OF THE APPLICATION FOR A SITE CERTIFICATE FOR THE PORT WESTWARD GENERATING PROJECT, FILED APRIL 11, 2002, SUBJECT TO THE SPECIAL CONDITIONS LISTED ON ATTACHMENT A AND TO THE FOLLOWING GENERAL CONDITIONS:

1. This permit does not authorize trespass on the lands of others. The permit holder shall obtain all necessary access permits or rights-of-way before entering lands owned by another.

2. This permit does not authorize any work that is not in compliance with local zoning or other local, state, or federal regulation pertaining to the operations authorized by this permit. The permit holder is responsible for obtaining the necessary approvals and permits before proceeding under this permit.

3. All work done under this permit must comply with Oregon Administrative Rules, Chapter 340; Standards of Quality for Public Waters of Oregon. Specific water quality provisions for this project are set forth on Attachment A.

4. Violations of the terms and conditions of this permit are subject to administrative and/or legal action which may result in revocation of the permit or damages. The permit holder is responsible for the activities of all contractors or other operators involved in work done at the site or under this permit.

5. A copy of the permit shall be available at the work site whenever operations authorized by the permit are being conducted.

6. Employees of the Division of State Lands and all duly authorized representatives of the Director shall be permitted access to the project area at all reasonable times for the purpose of inspecting work performed under this permit.

7. The Division of State Lands issues this permit pursuant to the Site Certificate for the Port Westward Generating Project, issued by the Oregon Energy Facility Siting Council, November 8, 2002.

8. In issuing this permit, the Division of State Lands makes no representation regarding the quality or adequacy of the permitted project design, materials, construction, or maintenance, except to approve the project’s design and materials, as set forth in the permit application, as satisfying the resource protection, scenic, safety, recreation, and public access requirements of ORS Chapters 196, 390 and related administrative rules.

9. Permittee shall defend and hold harmless the State of Oregon, and its officers, agents, and employees from any claim, suit, or action for property damage or personal injury or death arising out of the design, material, construction, or maintenance of the permitted improvements.

NOTICE: If removal is from state-owned submerged and submersible land, the applicant must comply with leasing and royalty provisions of ORS 274.530. If the project involves creation of new lands by filling on state-owned submerged or submersible lands, you must comply with ORS 274.905 - 274.940. This permit does not relieve the permittee of an obligation to secure appropriate leases from the Division of State Lands, to conduct activities on state-owned submerged or submersible lands. Failure to comply with these requirements may result in civil or criminal liability. For more information about these requirements, please contact the Division of State Lands, 503-378-3805.

Lori Warner, Manager
Western Region Field Operations
Oregon Division of State Lands

Authorized Signature                      Date Issued

ATTACHMENT C                           SITE CERTIFICATE, PORT WESTWARD GENERATING PROJECT
ATTACHMENT A to Removal/Fill Permit

Special Conditions for Removal/Fill Permit No. 25248-FP. PLEASE READ AND BECOME FAMILIAR WITH CONDITIONS OF YOUR PERMIT. This project may be site inspected by the Division of State Lands as part of our monitoring program. The Division has the right to stop or modify the project at any time if you are not in compliance with these conditions. A copy of this permit shall be available at the work site whenever authorized operations are being conducted.

1. This permit authorizes the placement of up to 3,000 cubic yards of gravel sand and silt and removal of up to 4,500 cubic yards of silt and clay in T8N, R4W, Sections 15 and 22, Tax Lots 3 and 4 in wetlands and Columbia River, Columbia County for power generation facility, transmission line, and water intake station upgrades, as outlined in the attached permit application, map and drawings, dated April 11, 2002 (Application). Removal-fill activity for wastewater discharge line and river outfall is specifically not authorized by this permit.

2. This permit authorizes removal and fill activities necessary to complete the required compensatory mitigation.

3. TURBIDITY/EROSION CONTROLS. The authorized work shall not cause turbidity of affected waters to exceed 10% over natural background turbidity 100 feet downstream of the fill point. For projects proposed in areas with no discernible gradient break (gradient of 2% or less), monitoring shall take place at 4 hour intervals and the turbidity standard may be exceeded for a maximum of one monitoring interval per 24 hour work period provided all practicable control measures have been implemented. This turbidity standard exceedance interval applies only to coastal lowlands and floodplains, valley bottoms and other low-lying and/or relatively flat land.

For projects in all other areas, the turbidity standard can be exceeded for a maximum of 2 hours (limited duration) provided all practicable erosion control measures have been implemented. These projects may also be subject to additional reporting requirements.

Turbidity shall be monitored during active in-water work periods. Monitoring points shall be at an undisturbed site (representative background) 100 feet upstream from the turbidity causing activity (i.e., fill or discharge point), 100 feet downstream from the fill point, and at the point of fill. A turbidimeter is recommended, however, visual gauging is acceptable. Turbidity that is visible over background is considered an exceedance of the standard.

Practicable erosion control measures which shall be implemented, as appropriate, include but are not limited to the following:
a. Place fill in the water using methods that avoid disturbance to the maximum practicable extent (e.g. placing fill with a machine rather than end-dumping from a truck).
b. Prevent all construction materials and debris from entering waterway;
c. Use filter bags, sediment fences, sediment traps or catch basins, silt curtains, leave strips or berms, Jersey barriers, sand bags, or other measures sufficient to prevent movement of soil;
d. Use impervious materials to cover stockpiles when unattended or during rain event;
e. Erosion control measures shall be inspected and maintained daily to ensure their continued effectiveness;
f. No heavy machinery in a wetland or other waterway;
g. Use a gravel staging area and construction access;
h. Fence off planted areas to protect from disturbance and/or erosion; and
i. Flag or fence off wetlands adjacent to the construction area.

4. Erosion control measures shall be maintained as necessary to ensure their continued effectiveness, until soils become stabilized. All erosion control structures shall be removed when project is complete and soils are stabilized and vegetated.

5. Fill and removal activities in the Columbia River shall be conducted between November 1 and February 28, unless otherwise coordinated with ODFW and approved in writing by ODSL.

6. Petroleum products, chemicals, or other deleterious materials shall not be allowed to enter waters of the state.

7. No fresh concrete shall be allowed to come into contact with waters of the state unless otherwise coordinated with ODFW and approved in writing by ODSL.

8. Waste materials and spoils shall be placed in a stable upland location above the top of bank and shall be suitably stabilized to prevent erosion.

9. If any archaeological resources and/or artifacts are uncovered during excavation, all construction activity shall immediately cease. The State Historic Preservation Office shall be contacted (phone: 503-378-4168).

10. The Division of State Lands retains the authority to temporarily halt or modify the project within the scope of the site certificate issued by the Energy Facility Siting Council in case of unforeseen damage to natural resources.
11. The permittee is responsible for carrying-out the terms and conditions of this permit unless the permit is transferred to another party using forms provided by the Division.

Compensatory Wetland Mitigation

The following conditions apply to the actions described in the Application, Appendix J-3, Wetland Mitigation Plan, dated May 2002 (Mitigation Plan). The issuance of this permit is contingent upon the successful compensatory wetland mitigation for the loss of 0.41 acres of wetlands resulting from power generating facility development and up to 0.02 acres of wetlands resulting from construction of transmission towers for a total of 0.43 acres impact.

12. On-site compensatory mitigation for the loss of 0.43 acres of palustrine emergent, seasonally saturated (PEMc) and scrub-shrub (PSSc), riverine flow-through (RFT)/depressional wetland, shall consist of 1.5 acres of enhancement to PEMc, PSSc, palustrine forested (PFO), RFT/depressional wetland.

13. Mitigation for temporary impacts (0.03 acres) resulting from water supply line installation shall consist of rehabilitation to original ground contours and re-vegetation with appropriate wetland seed mix upon re-establishment of original contours. Similar rehabilitation shall also be provided for any temporary wetland impacts associated with transmission towers installation (e.g., equipment ruts, tracks). During trenching or excavation, the top layer of soil shall be separated from the rest of the excavated material and put back on top when the trench or pit is back-filled. If the native underlying soils are not used as bedding material, and a coarser, non-native soil or other material is used, preventative measures such as clay or concrete plugs shall be used so that underground hydraulic piping does not occur and de-water the site and adjacent wetlands. Failure to comply with this condition may result in additional compensatory mitigation.

14. Mitigation shall be completed prior to or concurrent with the wetland fill project and otherwise consistent with Mitigation Plan, Section 10, Vegetation Management.

15. The wetland enhancement area shall be graded to the elevations described in Mitigation Plan, Section 10 and Figures J-3.5 and J-3.6.

16. Prior to any site grading, the surveyed boundaries of the wetland mitigation area and the avoided wetlands shall be surrounded by silt fencing at all times during construction of the project. There shall be no heavy equipment in this area except during mitigation construction.
17. An as-built survey shall be provided to the Division of State Lands within 60 days of mitigation site grading.

18. The mitigation site shall be planted in types, numbers and zones described in Mitigation Plan, Plant Schedule (Figure J-3.5). No existing trees shall be removed within the wetland mitigation area. Any significant variation in the plant schedule shall be referred to the Division for approval prior to execution. In the event that Cottonwood does not volunteer in the mitigation area in numbers/density consistent with the reference site by the end of the 3rd year, the planting plan shall be supplemented with cottonwood plantings. Proposed numbers shall be provided to the Division for approval prior to execution.

19. Removal or control of invasive, non-native plant species shall be done by means including preliminary site grading, mowing, herbicide application and/or by-hand removal, as appropriate. Livestock grazing shall not be allowed in the mitigation area.

20. The mitigation site shall be irrigated as necessary to avoid water stress for two years after the completion of planting.

21. Large woody debris shall be placed at the mitigation site locations identified in the Mitigation Plan, Figure J-3.6.

**Success Criteria**

To be deemed successful, the mitigation areas shall meet the following success criteria:

22. Cover of planted herbaceous material and desirable native wetland recruits (FAC+ or wetter) in designated PEMc areas shall be at least 80% after the 3rd year (as measured by cover in representative plots) and remain at least 80% for the remainder of the monitoring period.

23. Survival of planted trees and shrubs (by species) shall be at least 80% for the duration of the monitoring period (as measured by total stem counts). Should cottonwood not volunteer into the mitigation area in numbers consistent with the reference site by year 3, remedial action shall be taken in consultation with the Division.

24. There shall be no more than 30 percent cover of non-native species at any time during the monitoring period.
25. Mitigation site micro-topography shall meet grading design per Mitigation Plan, Figures J-3.5 and J-3.6 and including large woody debris placement pursuant to Mitigation Plan, Figure J-3.6.

26. The mitigation site shall exhibit characteristics of PFO/PSS wetland (0.9 acres) and PEMc wetland (0.6 acres) consistent with Cowardin definitions for said wetland types by the end of the monitoring period.

Mitigation Monitoring

27. The permittee shall monitor the mitigation site to determine success for a minimum period of five (5) years. The annual monitoring report is due by December 31 of each year and shall include the following information:

- Permit number, permittee’s name, project name
- Location of mitigation site: describe and show on current map.
- Location of impact site
- Description of all activities that have occurred on the mitigation site during the past year (i.e. grading, re-grading, planting, re-planting, weed eradication, etc.).
- Documentation that success criteria are being met and statements regarding criteria listed in conditions 22 through 26, above.
- Results of hydrologic monitoring to be conducted during early growing season including depth to saturation, extent of inundation and presence of secondary hydrologic indicators in the mitigation area.
- Qualitative comparison/discussion of the mitigation site performance relative to the reference site.
- Photographs from a minimum of three fixed photo-monitoring locations.
- Recommendations for remedial or maintenance actions, as necessary
- Other information necessary or required to document compliance with mitigation plan.

The monitoring period will start when the permittee has demonstrated that hydrology has been established and initial plantings have been accomplished. Failure to submit a monitoring report at the above date may result in an extension of the monitoring period and/or enforcement action.

Contingency

28. In the event that non-native plant cover exceeds 30% at any time during the monitoring period or less than 80% coverage/80% survival occurs in the emergent/shrub-tree area, the permittee shall submit to the Division, for
approval, a contingency plan describing specific actions and timeframes to return the site to design conditions.

29. Removal of the berm across the existing drainage channel shall only occur with the prior approval of the Division and shall be based on demonstration of successful hydrologic conditions and cover of desirable emergent species.

30. The Division retains the authority to extend the mitigation monitoring period and require corrective action in the event the success criteria are not accomplished for two consecutive years (without re-planting for failure to meet survival or cover criteria) within the 5-year monitoring period.

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