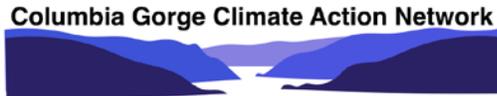


Climate Solutions



Oregon Environmental Council
It's Your Oregon



GREEN ENERGY INSTITUTE
AT LEWIS & CLARK LAW SCHOOL

February 3, 2017

Via Email & U.S. Mail

Oregon Energy Facility Siting Council
Oregon Department of Energy
c/o Sarah Esterson, Siting Analyst
Oregon Department of Energy
550 Capitol St. N.E.
Salem, OR 97301
Sarah.esterson@oregon.gov

RE: Public Comment on Carty Generating Station Request for Amendment to Site Certificate

Dear Oregon Energy Facility Siting Council and Oregon Department of Energy:

The following comments on Portland General Electric’s (PGE) Carty Generating Station Request for Amendment No. 1 (Amendment) are submitted on behalf of Columbia Riverkeeper, the Oregon Chapter of the Sierra Club, 350 PDX, the Oregon Environmental Council, the Oregon League of Conservation Voters, the Climate Action Coalition, Columbia Gorge Climate Action Network, Friends of the Columbia Gorge, Oregon Physicians for Social Responsibility, the Green Energy Institute, Climate Solutions, the Association of Northwest Steelheaders, and Chief Carl Sampson of the Walla Walla Tribe (collectively Commenters). Commenters represent hundreds of thousands of members that live, work, and recreate in Oregon, including members directly affected by PGE’s proposal to expand the Carty Generating Station’s natural gas generating capacity. The Oregon Energy Facility Siting Council (EFSC or the Council) received over **7,000 public comments urging the Council to deny PGE’s Amendment**. Oregonians

demand action to combat the dire consequences of climate change, as well as compliance with laws that protect the air we breathe and the scenic vistas we treasure.

For the reasons explained below, Commenters respectfully request that EFSC deny PGE's request to amend the Carty Generating Station site certificate because the Amendment fails to comply with energy facility siting standards. To the extent PGE wishes to pursue a solar energy project at the Carty Generating Station, PGE can submit a revised proposal that eliminates the fossil fuel-intensive elements proposed under the Amendment.

I. Background on the Carty Generating Station Facility & Request for Amendment No. 1

The Carty Generating Station is located adjacent to PGE's 584-MW coal-fired power plant in Morrow County. EFSC issued a site certificate for the Carty Generating Station, a 900-MW electric generating facility, in 2012. The approved energy facility includes two natural gas-fired generating blocks, Unit 1 and Unit 2, and related support facilities, including a 500-kilovolt transmission lines, Grassland Switchyard, and other components. PGE placed Unit 1 in service in July 2016 following considerable delays.¹ PGE has not commenced construction of Unit 2.

In 2016, PGE filed a request to amend the Carty Generating Station site certificate, Request for Amendment No. 1 (Amendment), seeking EFSC approval to:

- Construct and operate a 330 MW natural gas, simple-cycle combustion turbine generator (Unit 3) and associated plant additions;
- Increase the nominal capacity of Unit 2 from 450 to 530 MW;
- Extend the construction start deadline for Unit 2 by two years;
- Increase the area within the site boundary from 2,400 to 2,918 acres;
- Construct a 50 MW photovoltaic solar unit;
- Based on the addition of Unit 3, the capacity expansion of Unit 2, and the addition of a 50 MW solar unit, increase the nominal capacity of the facility from 900 to 1,360 MW;
- Construct supporting facilities, including a 500 kV substation, interconnecting transmission lines and associated lattice steel structures, and, depending on final design, water pipelines, utility power lines, control and communication systems, and other support systems.

¹ Pete Danko, *PGE gets new \$660M power plant running in the nick of time*, Portland Business Journal (July 29, 2016), <http://www.bizjournals.com/portland/blog/sbo/2016/07/pge-gets-new-660m-power-plant-running-in-the-nick.html>.

EFSC opened the Amendment comment period on September 1, 2016. EFSC suspended the comment period on September 27, 2016, at the applicant's request. EFSC reopened the comment period from December 22, 2016, through February 3, 2017.

II. Comments on Request for Amendment No. 1

EFSC's governing statute, ORS 459.300 *et seq.*, establishes the State of Oregon's legal review process and standards for siting specific categories of new and expanded energy facilities. ORS 469.310 established the overarching policy that governs energy facility siting in Oregon. Specifically, the statute states:

In the interests of the public health and the welfare of the people of this state, it is the declared public policy of this state that the siting, construction and operation of energy facilities shall be accomplished in a manner consistent with protection of the public health and safety and in compliance with energy policy and air, water, solid waste, land use and other environmental protection policies of this state.

ORS 469.310.

EFSC regulations include guidelines for each category of protected resource. For example, the Council regulations include the following standards:

- The regulations for 'protected areas' require that the applicant address, at a minimum, impacts from noise, increased traffic, water use, wastewater disposal, visual impacts of facility structures or plumes, and visual impacts from air emissions. OAR 345-021-0010(1)(L)(C). The list of potential impacts is not exhaustive and serves as a starting point for Council analysis under OAR 345-022-0044.
- The regulations for fish and wildlife habitat and threatened and endangered species require review of whether the construction or operation of the facility would cause significant adverse impacts to wildlife habitat or state-listed threatened or endangered species.

While the regulations define what findings EFSC must make, the regulations do not establish clear thresholds for harm to specific resources. For example, the regulations do not identify when noise levels exceed the threshold for significant impacts to protected areas, important recreational facilities, or wildlife. Similarly, the regulations do not define when a visually discordant energy facility would cause a significant adverse impact to scenic resources. EFSC must supply significance thresholds that impacts should not exceed. Where possible,

EFSC should identify thresholds using relevant local, state, interstate, or federal management or land use plans that identify important resources and desired levels of protection.

If EFSC concludes that a project would cause significant adverse impacts to a protected resource, the project is not automatically denied. Instead, EFSC's regulations require that EFSC determine whether "the overall public benefits of the Facility outweigh the damage to the resources protected by the standards the Facility does not meet." ORS 469.503(1). If EFSC concludes that the overall benefits do not outweigh the damage to protected resources, the project should be denied.

For the reasons explained below, EFSC should deny the Amendment because the project would cause significant adverse impacts to public health, protected areas, fish and wildlife habitat, threatened and endangered species, recreational opportunities, and other protected resources.

A. PGE's application violates OAR 345-027-0060(2) because it fails to provide information described in applicable sections of OAR 345-021-0000 and OAR 345-021-0010.

PGE's application proposes a significant expansion of the Carty Generating Station, yet fails repeatedly to disclose the direct and cumulative impacts of the expansion.² This violates OAR 345-027-0060(2), undermines EFSC review, and prejudices the public's right to comment on the Amendment. EFSC's rules governing site certificate amendment applications state:

In a request to amend a site certificate, the certificate holder *shall provide the information described in applicable sections of OAR 345-021-0000* [General Requirements] *and OAR 345-021-0010* [Contents of an Application]. The certificate holder may incorporate by reference relevant information that the certificate holder has previously submitted to the Department or that is otherwise included in the Department's administrative record on the facility.

OAR 345-027-0060(2) (emphasis added). Even accounting for the Carty site certificate application, PGE's Amendment application fails to provide information described in applicable sections of OAR 345-021-0000 and OAR 345-021-0010.

Examples of deficiencies in PGE's application are listed below and described in Section II.B.

² "Direct impacts" refers to the impacts from construction and operation proposed under the Amendment. "Cumulative impacts" refers to impacts from facilities authorized under the Carty Generating Station site certificate and impacts from facilities proposed under the Amendment.

- OAR 345-021-0010(1)(e)(D) states: “For federally-delegated permit applications, evidence that the responsible agency has received a permit application and the estimated date when the responsible agency will complete its review and issue a permit decision.” For the reasons explained in Section II.B, PGE has not complied with OAR 345-021-0010(1)(e)(D) and provided required information on the federally-delegated air pollution permit for the Amendment.
- OAR 345-021-0010(1)(i)(C) requires the applicant to submit information on potential adverse impacts to soils to support findings by the Council as required by OAR 345-022-0022. This includes “[i]dentification and assessment of significant potential adverse impacts to soils from construction, operation and retirement of the facility, including, but not limited to erosion and chemical factors such as salt deposition from cooling towers, land application of liquid effluent, and chemical spills.” OAR 345-021-0010(1)(i)(C). The Amendment application states that “The potential adverse impacts as a result of the new proposed components of the facility will remain the same as described in the ASC [Approved Site Certificate].”³ PGE fails to explain its rationale for this conclusion. Instead, PGE points to exhibits in the site certificate, but fails to describe how those exhibits disclose impacts from the expansion proposed under the Amendment.
- OAR 345-021-0010(1)(I) requires that the applicant disclose “[i]nformation about the proposed facility’s impacts on protected areas, providing evidence to support a finding by the Council as required by OAR 345-022-0040.” Exhibit L consists of one paragraph which states: “For protected areas discussed in the ASC that were less than 20 miles from the facility, the modifications described in this RFA in no way affect the potential impacts to those protected areas. Potential impacts related to noise, traffic, water use, wastewater disposal, and visual impacts were described in the ASC and are not affected by this RFA.”⁴ PGE fails to provide any evidence or rationale to substantiate its conclusions that the addition of Unit 3 and expansion of Unit 2 would not impact protected areas.
- OAR 345-021-0010(1)(r) requires “[a]n analysis of significant potential impacts of the proposed facility, if any, on scenic resources identified as significant or

³ Amendment Application, Exhibit I at I-3.

⁴ Amendment Application, Exhibit L at L-1.

important in local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area, providing evidence to support a finding by the Council as required by OAR 345-022-0080.” The Amendment application fails to disclose the direct and cumulative impacts of the Carty expansion on scenic resources, including the Columbia River Gorge National Scenic Area. In addition, the Amendment does not address whether PGE requested from tribal nations the opportunity to review tribal land management plans. EFSC must ensure that PGE did, in fact, request, review, and ensure compliance with OAR 345-021-0010(1)(r)’s directive to analyze “significant potential impacts of the proposed facility, if any, on scenic resources identified as significant or important in . . . tribal land management plans . . . located within the analysis area.”

- OAR 345-021-0010(1)(t) requires “[i]nformation about the impacts the proposed facility would have on important recreational opportunities in the analysis area, providing evidence to support a finding by the Council as required by OAR 345-022-0100.” PGE states: “The modifications described in this RFA in no way affect the potential impacts to recreational areas discussed in the ASC. Potential impacts related to noise, traffic, water use, wastewater disposal, and visual impacts that might affect recreational activities were described in the ASC and are not affected by this RFA.”⁵ PGE fails to explain why the addition of Unit 3 and expansion of Unit 2 do not affect the impacts described in the site certificate.
- EFSC cannot rely solely on air pollution emission data and analysis disclosed in the Carty Generating Station site certificate process because it fails to disclose air emissions from project components proposed under the Amendment. *See e.g.*, OAR 345-027-0070(10)(c) (“For any amendment not described above, the Council shall consider whether the amendment would affect any findings made by the Council in an earlier order.”). For example, PGE’s 2009 site certificate application and the associated administrative record does not disclose emissions from a 1,310 MW natural-gas power plant. EFSC must evaluate, and the public must have access to information to comment on, the air pollution emission impacts proposed under the Amendment.

//
//

⁵ Amendment Application, Exhibit T at T-1.

B. PGE’s application violates OAR 345-021-000(7), which prejudices the public’s right to comment on the Amendment and undermines EFSC’s review.

PGE’s application lacks information on the air pollution permitting process as required under EFSC’s siting regulations. Construction and operations proposed under the Amendment require a federally-delegated permit from DEQ for air pollution emissions. PGE’s Amendment Application, Exhibit E, describes required permits and states: “Oregon Department of Environmental Quality (DEQ) Air Discharge Permits – a new permit application will be submitted to DEQ for Unit 2 and 3. PGE anticipates providing a copy of the permit application to the Department by end of September 2016.”⁶ To date, PGE has not filed a copy of the application with the Oregon Department of Energy (Energy).⁷

Oregon Administrative Rules Division 21 governs applications for site certificates and amendments to site certificates. OAR 345-027-0060, “Request to Amend Certificate,” establishes the requirements for amending a site certificate and OAR 345-027-0070, “Review of Request for Amendment,” describes EFSC’s review process for certificate amendments. OAR 345-027-0060(2) requires that “the certificate holder shall provide the information described in applicable sections of OAR 345-021-0000 and OAR 345-021-0010.” OAR 345-021-0000(7), “General Requirements,” states:

For any federally-delegated permits that are needed for construction or operation of the proposed facility, the applicant shall submit to the Department one copy of each federally-delegated permit application. The applicant may submit the site certificate application before submitting a copy of a federally-delegated permit application. The applicant may submit the site certificate application before submitting a copy of a federally-delegated permit application if the applicant submits a schedule of the date by which the applicant intends to submit the federally-delegated permit application. The Department may not find the site certificate application to be complete before receiving copies of all federally-delegated permit applications and a letter or other indication from each agency responsible for issuing a federally-delegated permit stating that the agency has received the permit application, identifying any additional information the agency is likely to need from the applicant and estimating the date when the agency will complete its review and issue a permit decision.

OAR 345-021-0000(7) applies to both site certificates and amendments because it is “an applicable section[] of OAR 345-021-0000.” OAR 345-027-0060(2).

⁶ Request for Amendment Application, Exhibit E at E-6.

⁷ *Pers. Comm.* Sarah Esterson, Oregon Department of Energy (Feb. 1, 2017).

As noted above, PGE has not submitted to Energy a copy of the air pollution permit application.⁸ Furthermore, to date, Energy has not received a letter from DEQ specifying that the “agency has received the permit application, identifying any additional information the agency is likely to need from the applicant and estimating the date when the agency will complete its review and issue a permit decision.”⁹ In turn, PGE’s Amendment application violates the requirements of OAR 345-027-0060(2) and OAR 345-021-0000(7).

Notably, EFSC relied on DEQ’s issuance of the Carty Air Contaminant Discharge Permit (ACDP) in the 2012 Final Order for the Carty Generating Station. The Final Order states:

The Oregon Department of Environmental Quality (DEQ) issued an Air Contaminant Discharge Permit (ACDP) for the proposed facility on December 29, 2010. In its ACDP Review Report the DEQ noted that PGE had submitted the results of its air quality modeling in its ‘Prevention of Significant Deterioration (PSD) Application’ for the proposed facility, and has subsequently provided an independent third party analysis of the modeling results. The PSD application included analysis of potential air quality impacts on Class I and Class II areas, in addition to an analysis of impacts to the Columbia River Gorge National Scenic Area. The DEQ states in its Review Report that ‘Based on the air quality analysis, DEQ has determined that the proposed Carty Plant will not have an adverse impact on air quality in Class I or Class II areas. Impacts on the Columbia River Gorge National Scenic Area were also evaluated and determined to be slightly higher than the impacts in the Mt. Hood Wilderness area, but still not significant.’¹⁰

PGE filed with DEQ the ACDP permit application for the Amendment on January 20, 2017. PGE’s decision to proceed with the site certificate application before submitting the DEQ air quality application undermines EFSC’s ability to rely on DEQ’s expert analysis, as EFSC relied upon in issuing the 2012 Final Order, to determine the proposal’s compliance with multiple siting criteria.

//

//

⁸ *Pers. Comm.* Sarah Esterson, Oregon Department of Energy (Feb. 1, 2017).

⁹ *See e.g.*, OAR 345-021-0000(7). PGE submitted the air pollution permit application to DEQ in filings dated January 20, 2017. Commenters filed a public record request on January 26, 2017, and obtained a copy of the application on January 30, 2017, less than a week before the close of the EFSC’s comment period. PGE’s decision to file the complex, multi-hundred page air quality application in late January frustrates the public’s ability to comment on the Amendment’s air pollution impacts.

¹⁰ Final Order at 86 (citations omitted).

C. PGE’s application ignores significant adverse impacts from air pollution to public health and protected resources.

Burning natural gas releases air pollutants that impair air quality and harm public health. Facilities proposed under the Amendment would emit: greenhouse gases, nitrogen oxides (NOx), sulfur dioxide (SO₂), volatile organic compounds (VOC), particulate matter less than 10 micrometers (PM₁₀), particulate matter less than 2.5 micrometers (PM_{2.5}), and sulfuric acid mist (H₂SO₄).¹¹ PGE’s proposal to expand the Carty Generating Station will increase air pollution emissions over emissions authorized by DEQ in the Carty Generating Station ACDP and reviewed by EFSC before issuing the 2012 site certificate.¹² PGE’s Amendment application fails to address the impacts of air pollution emissions from new facilities, as well as the cumulative impact of the facilities proposed under the Amendment and facilities authorized under the Carty Generating Station site certificate. Overall, PGE’s application fails to disclose and analyze significant adverse impacts from air pollution to public health, protected areas, visual resources, scenic resources, soil resources, and threatened and endangered species.¹³

a. EFSC’s duty to consider air pollution impacts.

EFSC has an independent duty to evaluate how air pollution emissions impact public health, protected areas, scenic resources, threatened and endangered species, soil protection, and other resources. *See* OAR 345-022-0022 (Soil Protection); OAR 345-022-0040 (Protected Areas); OAR 345-022-0060 (Fish and Wildlife Habitat); OAR 345-022-0070 (Threatened and Endangered Species); OAR 345-022-0080 (Scenic Resources); OAR 345-022-0090 (Historical, Cultural, and Archaeological Resources); OAR 345-022-0100 (Recreation). For example, EFSC relied on DEQ’s air quality analysis to reach independent findings on the Carty Generating Station’s compliance with siting standards in the Final Order.¹⁴ This approach reflects EFSC’s directive under ORS 469.310 and OAR Division 22 siting standards to consider a proposed energy facility’s air quality impacts on protected areas, scenic resources, and other resources.

//
//

¹¹ PGE Major New Source Review Application, Carty Expansion Project (Jan. 20, 2017).

¹² *Id.*

¹³ In addition to the Comments filed herein, Commenters incorporate by this reference comments filed by Friends of the Columbia Gorge (Friends). Friends’ comments address in detail the Application’s failure to adequately address the impacts of the Amendment on the Columbia River Gorge National Scenic Area.

¹⁴ *See* Final Order at 86 (relying on DEQ’s ACDP for the Carty Generating Station to reach findings on the facility’s compliance with the protected areas standard, OAR 345-022-0040).

b. EFSC must evaluate the Amendment’s impacts to public health.

PGE’s application fails to disclose fully the Amendment’s impacts to public health. ORS 469.310 states that “construction and operation of energy facilities shall be accomplished in a manner consistent with protection of the public health and safety” In addition, ORS 469.401(2) states: “The site certificate or amended site certificate shall contain conditions for the protection of the public health and safety” EFSC has not promulgated an independent standard for evaluating a proposal’s impacts on public health. However, standards regulating noise, water, soil protection, land use, and other standards address, in part, public health.

Although EFSC’s siting and amendment guidelines do not include a stand-alone public health siting standard, EFSC cannot shirk its duty to ensure that construction and operation of energy facilities are consistent with protection of public health. For example, EFSC must consider public health impacts from the Amendment’s localized and downwind air pollution emission impacts. Notably, PGE proposes expanding its existing natural gas facility in an area subject to seasonal air stagnation advisories.¹⁵ EFSC’s evaluation should consider the direct and cumulative impacts of facilities proposed under the Amendment and the existing Carty Generating Station, authorized under the site certificate, on public health, including populations vulnerable to air pollution.

c. PGE fails to disclose the Amendment’s air pollution impacts to protected areas, scenic resources, visual resources, and other resources.

PGE’ application fails to address the direct and cumulative impacts of air pollution from facilities proposed under the Amendment on protected areas and other resources. EFSC’s siting rules require that energy facilities avoid adverse impacts to protected areas, sensitive wildlife species, scenic resources, historic, cultural, and archeological resources, and recreational resources. *See e.g.* OAR 345-022-0040, 345-022-0070, 345-022-0080, 345-022-0090, and 345-022-0100. For example, OAR 345-022-0040(1) states that, for a facility located outside protected areas, EFSC “must find that, taking into account mitigation, the design, construction and operation of the facility are not likely to result in significant adverse impact” to protected areas listed in OAR 345-022-0040(1)(a) – (p). Protected areas include: National Parks, National Monuments, National Recreation and Scenic Areas, State Parks and Waysides, State Natural Heritage Areas, and other areas specified in in OAR 345-022-0040(1).

¹⁵ Oregon DEQ, Air Pollution Advisories, <http://www.deq.state.or.us/aq/advisories/winter.htm>; Air stagnation advisories issued for northern, southern Oregon, *The Oregonian* (Jan. 27, 2017), http://www.oregonlive.com/weather/index.ssf/2017/01/agencies_issues_air_stagnation.html.

EFSC must ensure the Amendment will comply with the requirements for protecting these resources within the “analysis area” which is defined in the Project Order. OAR 345-001-0010(2). “Analysis area” means the area or areas specifically described in the project order issued under 345-015-0160(1), containing resources that the proposed facility may significantly affect. The analysis area is the area for which the applicant shall describe the proposed facility’s impacts in the site certificate application. A proposed facility might have different analysis areas for different types of resources. For the purpose of submitting an application for a site certificate in an expedited review granted under OAR 345-015-0300 or OAR 345-015-0310, the analysis areas are the study areas defined in the rule, subject to modification in the project order.

The Carty Generating Station Project Order, issued on November 3, 2009, provides minimum areas where impacts analysis must occur.¹⁶ EFSC did not issue an amended Project Order as part of PGE’s Amendment. Therefore, the 2009 Project Order governs EFSC’s analysis. The Project Order specifies that if significant impacts would occur outside the minimum area, then the applicant must demonstrate how the proposal would comply with the resource protection standards. Specifically, the Project Order states:

The analysis areas are the minimum areas that PGE must study for potential impacts from the construction and operation of the proposed facility. The analysis areas described in this project order do not limit the applicant’s responsibility to assess the potential impacts of the facility. They are the areas in which significant adverse impacts from the proposed facility are likely to occur. If significant impacts could occur beyond the analysis areas described here, then PGE must assess those impacts in the application for a site certificate and show how the facility would comply with the applicable standard with regard to the larger area where impacts could occur.¹⁷

The Columbia River Gorge National Scenic Area (National Scenic Area) was not included within the minimum areas specified in the Project Order. Pursuant to the Project Order, the likely significant impacts to air quality and scenic, natural, cultural, and recreational resources must be addressed regardless of the distance from the proposed facility.

In particular, EFSC’s analysis must account for values identified in the local land use plans and federal management plans, including the *Columbia River Gorge National Scenic Area Management Plan* (Management Plan).¹⁸ The Management Plan requires that “air quality shall

¹⁶ Project Order at 17–18.

¹⁷ Project Order at 17.

¹⁸ Columbia River Gorge National Scenic Area Management Plan (Sept. 2011)
<http://www.gorgecommission.org/management-plan/plan>.

be protected and enhanced, consistent with the purposes of the Scenic Area Act.”¹⁹ Specifically, the Management Plan states:

Air quality shall be protected and enhanced, consistent with the purposes of the Scenic Area Act. The States of Oregon and Washington and the U.S. Forest Service shall:

- (1) Continue to monitor air pollution and visibility levels in the Gorge;
- (2) Conduct an analysis of monitoring and emissions data to identify all sources, both inside and outside the Scenic Area, that significantly contribute to air pollution. Based on this analysis, *the States shall develop and implement a regional air quality strategy to carry out the purposes of the Scenic Area Act*, with the U.S. Forest Service, the Southwest Air Pollution Control Authority and in consultation with affected stakeholders.

The States and the Forest Service shall together provide annual reports to the Commission on progress made regarding implementation of this policy. The first report shall include a workplan and timeline for gathering/analyzing data and developing and implementing the strategy. The workplan and strategy shall be submitted to the Commission for approval.²⁰

EFSC has a responsibility to ensure that National Scenic Area air quality is protected from new sources of air pollution. *See* ORS 196.155.²¹

The National Scenic Area is one of the most polluted airsheds in the western United States.²² Acid deposition in the eastern Gorge is damaging ecosystems and threatening Native American cultural resources.²³ Multiple studies identify air pollution sources in eastern Oregon, including PGE’s coal-fired power plant located adjacent to the Carty Generating Station, as some of the leading causes of air pollution in the National Scenic Area.²⁴

The Columbia River Gorge Commission approved the Columbia River Gorge Air Study and Strategy (Strategy) in 2011. The Strategy states:

¹⁹ *Id.* at I-3-32–33.

²⁰ Management Plan at I-3-32–33 (emphasis added).

²¹ “The Governor, the Columbia River Gorge Commission and all state agencies and counties are hereby directed and provided authority to carry out their respective functions and responsibilities in accordance with the compact executed under ORS 196.150 to 196.165 and the Columbia River Gorge National Scenic Area Act.” ORS 196.155.

²² Exhibit 1 (Columbia River Gorge Air Quality Study, Science Summary Report, Columbia River Gorge National Scenic Area (Feb. 8, 2008) at i).

²³ *Id.* at 14.

²⁴ *See generally* Exhibit 1.

In 2007 the Gorge visibility study conducted by the air agencies determined that visibility conditions in the Gorge are remaining constant and are expected to improve somewhat in the coming years despite regional growth pressures. The study identified the PGE Boardman coal-fired power plant as the most significant individual contributor to haze in the Gorge. Additional studies, conducted by the U.S. Forest Service, Dr. Dan Jaffe and Dr. Kent Norville, also looked at visibility, air quality trends, and acid deposition in the Gorge and concluded that PGE Boardman is a key contributor.²⁵

The Strategy also identifies PGE's Beaver Generating Plant, located in Clatskanie, Oregon, as a source of haze that exceeds the Strategy's significance threshold of 0.5 deciview.²⁶ Additional sources of air pollution, such as the Carty Generating Station expansion proposed under the Amendment, have the potential to further impair air quality and harm scenic, natural, cultural, and recreational resources of the National Scenic Area. EFSC must evaluate these impacts.²⁷

Based on the Project Order and applicable law, EFSC must ensure the cumulative impact of the facilities authorized under the 2012 Carty Generating Station site certificate and the facilities proposed under the Amendment would not adversely affect National Scenic Area resources. For example, EFSC must ensure that the evaluation of air quality impacts for the Carty Generating Station includes modeling of impacts to the National Scenic Area and that permits include provisions that would prevent adverse impacts to National Scenic Area air quality and the Area's scenic, natural, cultural, and recreational resources. In conducting the analysis, EFSC should apply the 0.5 deciview threshold for measuring significance of visibility impacts. EFSC and DEQ applied the 0.5 deciview standard in the Carty Generating Station site certificate review.²⁸ In addition, DEQ, the Washington Southwest Clean Air Agency, and the Columbia Gorge Commission adopted the 0.5 deciview standard in the Columbia River Gorge Air Study and Strategy.²⁹ EFSC must ensure the Amendment review analyzes the impact of the existing and new facilities at the Carty Generating Station.

Overall, EFSC cannot evaluate the cumulative or direct impacts of the amendment on protected resources, scenic resources, visual resources, or public health without additional information, and analysis, on air pollution emissions.

²⁵ *Id.* at ii.

²⁶ *Id.* at 15.

²⁷ The Management Plan clearly identifies the scenic, natural, recreational, cultural resources of the Scenic Area as important. *See* Management Plan, Part I, Chapters 1–4.

²⁸ EFSC Final Order, Carty Generating Station at 86–87 (June 29, 2012).

²⁹ Exhibit 1 at 13–14.

D. PGE fails to demonstrate compliance with the carbon dioxide standard.

a. PGE supplied conflicting information to DEQ and EFSC on the Amendment’s carbon dioxide emissions.

PGE supplied conflicting information to DEQ and EFSC on the Amendment’s carbon dioxide emissions, which undermines the public and EFSC’s ability to ensure the proposal complies with the state’s carbon dioxide emission standards. Table 1 summarizes the conflicting information.

Table 1. Summary of Carbon Dioxide Emission Data Supplied by PGE to EFSC and DEQ for the Carty Generating Station Expansion.

	Unit 2	Unit 3
DEQ 2017 ACDP Application (million tons of CO ₂ /year)	2.059 ³⁰	0.7478 ³¹
EFSC 2016 Amendment Application (million tons of CO ₂ /year)	1.6 ³²	0.36 ³³
Discrepancy (million tons of CO ₂ /year)	0.458	0.3878
Percentage increase in annual CO ₂ emissions in DEQ application over EFSC application	28.6%	107.7%

PGE has not provided EFSC with a complete and accurate accounting of its potential carbon dioxide emissions. As a result, PGE’s application does not provide adequate information to demonstrate compliance with EFSC’s carbon dioxide standard. EFSC should deny the permit application, or require PGE to provide a full and accurate accounting of its greenhouse gas pollution, consistent with the Major New Source Review Application submitted to Oregon DEQ in January 2017.

//
//

³⁰ PGE, Major New Source Review Application- Carty Expansion Project. Appendix B. Detailed emissions calculations. Table 6 (Jan. 20, 2017).

³¹ *Id.* at Table 7.

³² Amendment Application Exhibit Y, Table Y-4 (Unit 2 produces 95,975 lbs of CO₂ over 30 years, which corresponds to 1.6 million tons of CO₂ per year).

³³ Amendment Application Exhibit Y, Table Y-4 (Unit 2 produces 21,646 lbs of CO₂ over 30 years, which corresponds to 0.36 million tons of CO₂ per year).

b. Based on the information provided to EFSC, PGE fails to demonstrate compliance with the state’s carbon dioxide emission standards.

Based on the information provided in the Amendment application, EFSC cannot find that Units 2 and 3 of the Carty Generating Station comply with all applicable carbon dioxide emission standards adopted by EFSC or enacted by statute, as required by OAR 345-024-0500. EFSC must determine that the net carbon dioxide emissions rate associated with the Amendment will not exceed 0.675 pounds of carbon dioxide per kilowatt-hour of net electric power output, on a “new and clean basis,” and establish a means of compliance to achieve that emission rate.³⁴ PGE fails to provide complete information to make the requisite carbon dioxide standard findings.

First, PGE fails to disclose new information on VOC emissions from Unit 1, which may impact carbon dioxide findings for the Amendment. In late 2016 PGE applied to DEQ for an amendment to the ACDP for Unit 1 because the facility appears to emit higher-than-expected levels of VOCs. This new information is not reflected in PGE’s Amendment application. The new application to DEQ is relevant because the oxidation process used to reduce VOC emissions also produces carbon dioxide.³⁵ Accordingly, changes in systems for handling VOCs may impact the overall carbon dioxide emissions for Carty Generating Station Units 1, 2, and 3, depending on the VOC-handling system used for Units 2 and 3. Exhibit Y does not provide adequate detail to ascertain whether PGE’s experience with Carty 1 VOC levels may impact that facility’s overall carbon emissions, or similar emissions from Units 2 and 3 proposed as part of the Amendment. As a result, PGE has not provided adequate information to ascertain its compliance with Oregon’s carbon dioxide standard.

Second, PGE’s application does not identify a vendor or technology for Units 2 and 3. Exhibit Y states, “The gross capacity of each generating unit would depend on the final technology selected.”³⁶ Without key information about the design of Units 2 and 3 and the acknowledged emissions miscalculations for Unit 1, EFSC cannot determine that the Amendment meets the carbon dioxide standard.

//
//

³⁴ OAR 345-024-0550.

³⁵ See Complex Technical Modification Application. Portland General Electric Company. Carty Generating Station, Boardman, Oregon, at 4 (Sept. 30, 2016).

³⁶ Amendment Application Exhibit Y at Y-5.

Third, startup and shutdown may lead to higher levels of carbon dioxide emissions than disclosed in PGE's Amendment application.³⁷ Exhibit Y does not provide adequate information about frequent load changes as a variable in estimating the gross carbon dioxide emission that will result from construction and operation of facilities proposed under the Amendment. PGE evaluated the total heat input, fuel usage, carbon dioxide gross emission rate, and excess carbon dioxide emissions from the proposed Unit 2 facility based on year-round, continuous operation of the combined cycle generating plant with power augmentation from the duct burners.³⁸ Particularly in light of the unexpectedly high air pollution emissions of Carty Unit 1, potentially a result of higher emissions in startup and shutdown,³⁹ EFSC should independently evaluate PGE's assumptions regarding the carbon emissions of facilities included in the Amendment.

Finally, Exhibit Y fails to assess the full potential carbon dioxide pollution impact of Unit 3. According to Exhibit Y, "Unit 3 would be classified as a "non-base load power plant" as defined in OAR 345-001-0010(40) because Unit 3 would be limited by the site certificate to an average number of hours of operation per year of not more than 6,600."⁴⁰ Out of 8,760 hours in a year, PGE's Unit 3 could operate about 75% of the time, or 6,600 hours. Yet Exhibit Y assumes for its carbon dioxide calculations that "Unit 3 would operate 2,000 hours per year (full power equivalent)."⁴¹ According to OAR 345-021-0010(1)(y)(K)(ii), Exhibit Y should include, "For a non-base load power plant, the applicant's proposed annual hours of operation on a new and clean basis." PGE does not propose a limitation on hours of operation for Unit 3 to 2000 hours per year, despite making this assumption in Exhibit Y. PGE should account for the full potential impact of Unit 3 operating for 6,600 hours per year or propose a firm limit on operations to 2,000 hours per year, a 22.83% usage rate.

The difference between the operation of Unit 3 at 2,000 hours and 6,600 hours is significant to the analysis in Exhibit Y. At 2,000 hours each year, PGE estimates that Unit 3 will generate 21,646 pounds of carbon pollution over 30 years, an average of 0.36 million tons of

³⁷ See, e.g., EPA, *Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, 3.1 Stationary Gas Turbines* (April 2000)) (explaining that "CO and VOC emissions both result from incomplete combustion" and thus "a gas turbine operating under a full load will experience greater fuel efficiencies which will reduce the formation of carbon monoxide" whereas "a gas turbine operating under a light to medium load will experience reduced fuel efficiencies (incomplete combustion) which will increase the formation of carbon monoxide").

³⁸ Amendment Application Exhibit Y at Y-11.

³⁹ See Exhibit 2 (Complex Technical Modification Application. Portland General Electric Company. Carty Generating Station, Boardman, Oregon, at 1 (Sept. 30, 2016)).

⁴⁰ Amendment Application Exhibit Y at Y-3.

⁴¹ *Id.* at Y-10.

carbon pollution per year. At 6,600 hours of operation per year, the upper limit for a non-base load power plant, Unit 3 would emit 1.19 million tons of carbon dioxide pollution per year, dramatically increasing both PGE's monetary offset responsibility and the overall impact of the project. Table Y-4 must be revised to assess the full impact of Unit 3 allowed by the site certificate amendment that PGE seeks.

E. The benefits of the energy do not outweigh the damage to protected resources.

EFSC may issue a site certificate for a facility that does not meet one or more of the standards under ORS 469.501 if “the Council determines that the overall public benefits of the facility outweigh the damage to the resources protected by the standards the facility does not meet.”⁴² It is the applicant's burden to demonstrate that the overall public benefits outweigh damage to the resources. Here, PGE failed to provide basic information to demonstrate the public benefits of additional fossil fuel-based power generation outweigh damage to resources. For the reasons explained above, EFSC should not waive siting criteria based on the public benefit balancing test.

F. Conclusion

For the reasons stated above, Commenters request that EFSC deny PGE's request to amend the Carty Generating Station site certificate.

Sincerely,

Lauren Goldberg
Staff Attorney
Columbia Riverkeeper

Erica Stock
Director
Oregon Chapter Sierra Club

Chief Carl Sampson ~ PeoPeoMoxMox ~
Yellowbird
Headman of the Walla Walla Tribe

Nathan Baker
Senior Staff Attorney
Friends of the Columbia Gorge

⁴² OAR 345-022-0000(2).

Mia Reback
Lead Organizer
350PDX

Doug Moore
Executive Director
Oregon League of Conservation Voters

Jana Gastellum
Climate Program Director
Oregon Environmental Council

Eric Strid
Co-Convenor
Columbia Gorge Climate Action Network

Melissa Powers
Director, Green Energy Institute
Jeffrey Bain Faculty Scholar and Professor of
Law, Lewis & Clark Law School

Bob Rees
Executive Director
Association of Northwest Steelheaders

Regna Merritt
Healthy Climate Program Director
Oregon Physicians for Social Responsibility

Dave Van't Hof
Oregon Director
Climate Solutions

Bonnie McKinlay
Climate Action Coalition

cc:

Ruchi Sadhir, Office of the Governor, Energy & Climate Change Policy Advisor
Jason Miner, Office of the Governor, Natural Resources Policy Manager
Gina Zejdlik, Office of the Governor, Interim Chief of Staff
Nick Blosser, Office of the Governor, Chief of Staff (incoming)
Audie Huber, Confederated Tribes of the Umatilla Indian Reservation
Elizabeth Sanchez, Yakama Nation
Julie Carter, Columbia River Inter-Tribal Fish Commission