

Request for Amendment 5 for the Biglow Canyon Wind Farm

Exhibit N. Waste Minimization

**Submitted to
Oregon Energy Facility Siting Council**

Prepared for



Portland General Electric Company

Prepared by



October 2026

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AC	alternating current
ASC	Application for Site Certificate
BCWF or Facility	Biglow Canyon Wind Farm
BESS	battery energy storage system
BIGL 2 or Project Developer	BIGL 2, LLC
BMP	best management practice
Certificate Holder or PGE	Portland General Electric Company
CFR	Code of Federal Regulations
Council or EFSC	Oregon Energy Facility Siting Council
ESCP	Erosion and Sediment Control Plan
EPA	U.S. Environmental Protection Agency
gen-tie	generation tie
kV	kilovolt
Li-ion	lithium-ion
MW	megawatt
MWh	megawatt-hour
NPDES	National Pollutant Discharge Elimination System
O&M	operations and maintenance
OAR	Oregon Administrative Rules
ODEQ	Oregon Department of Environmental Quality
ODOE	Oregon Department of Energy
PV	photovoltaic
RCRA	Resource Conservation and Recovery Act
RFA	Request for Amendment
Site Certificate	Site Certificate on Amendment 4
Solar Facility	solar energy generation and battery storage components
SPCC	Spill Prevention, Control, and Countermeasure

1.0 Introduction

The Portland General Electric Company (PGE or Certificate Holder) submits this Request for Amendment (RFA) 5 to the Site Certificate on Amendment 4, issued March 27, 2026 (Site Certificate) for the Biglow Canyon Wind Farm (BCWF or Facility) to add a second phase of solar photovoltaic (PV) energy generation and battery storage capacity to the BCWF following the solar power generation and battery storage capacity approved under RFA 4.

BCWF, owned and operated by PGE, is located within an approved site boundary comprising approximately 25,000 acres, approximately 2.5 miles northeast of the town of Wasco in Sherman County, Oregon (Background Exhibit Figure 1). The BCWF operates under the Site Certificate from the Oregon Energy Facility Siting Council (Council or EFSC) as administered by the Oregon Department of Energy (ODOE). BCWF currently consists of 217 operating wind turbines, with a maximum blade tip height of 445 feet, and a peak generating capacity of 450 megawatts (MW) (Wind Facility). RFA 4, approved March 27, 2026, added 125 MW alternating current (AC) generating capacity from PV solar arrays and 500 megawatt-hours (MWh) in battery storage capacity. The solar energy generation and battery storage components (Solar Facility) described in RFA 4 are currently under construction.

In RFA 5, PGE proposes to add up to 200 MW AC generating capacity from PV solar arrays and 1,000 MWh in battery storage capacity (RFA 5 Solar Facility) by expanding the overall BCWF site boundary by approximately 839 acres. The RFA 5 Solar Facility is located across approximately 622 acres of the existing BCWF site boundary and 839 acres of expanded site boundary, for a total of approximately 1,461 acres (together, RFA 5 Site Boundary; see Background Exhibit Figure 4).

The RFA 5 Site Boundary provides a conservative estimate of the maximum area needed for development and micrositings through final design and construction for the RFA 5 Solar Facility, rather than the anticipated disturbance footprint. Primary infrastructure includes solar arrays, inverters, battery energy storage system (BESS) facilities and their subcomponents (i.e., inverters), one collector substation, and medium-voltage collector lines (herein collectively referred to as “Solar Components”). Additionally, the Solar Components include operations and maintenance (O&M) structures, site access roads, internal roads, perimeter fencing, facility entry gates, and temporary laydown areas. The maximum generating capacity from the Solar Components will be 200 MW AC. Power generated from the Solar Components will be transferred to the grid via a 230-kilovolt (kV) generation tie (gen-tie) transmission line, approximately 2.7 miles long. The RFA 5 Solar Facility includes the Solar Components and the gen-tie transmission line.

PGE will own and operate the RFA 5 Solar Facility as a part of the BCWF, which, to date, has been developed by BIGL 2, LLC (BIGL 2, or Project Developer). BIGL 2, in its capacity as the Project Developer, supports PGE in this RFA 5 and may construct and temporarily operate the RFA 5 Solar Facility on behalf of PGE under a Build-Transfer Agreement.

The information contained herein supports demonstration of compliance with the Waste Minimization approval standard for Oregon Administrative Rules (OAR) 345-022-00120.

2.0 Description of Facility Solid Waste and Wastewater – OAR 345-022-0120(4)(a)(A)

(4) To assist the Council in determining whether the standard outlined in (1) through (3) has been met, the Applicant must submit:

(a) Information about the applicant's plans to minimize the generation of solid waste and wastewater and to recycle or reuse solid waste and wastewater, providing evidence to support a finding by the Council as required by OAR 345-022-0120. The applicant must include:

(A) A description of the major types of solid waste and wastewater that construction, operation and retirement of the facility are likely to generate, including an estimate of the amount of solid waste and wastewater;

As detailed in the following sections, although the proposed changes will result in additional solid waste and wastewater for the RFA 5 Solar Facility, the Certificate Holder can still comply with all Site Certificate conditions for waste minimization previously adopted by the Council for compliance with OAR 345-022-0120. Site Certificate Conditions applicable to solid waste and wastewater and that apply to the Solar Components (Council 2026) include:

- GEN-SP-01: Compliance with hazardous materials laws and protection of public health, safety, and the environment.
- PRE-SP-01: Work in compliance with a final Erosion and Sediment Control Plan (ESCP) as required under the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Discharge General Permit 1200-C (see Exhibit C for further information).
- OPR-SP-01: Prevent runoff of wind turbine and solar panel wash water from the site or discharges to surface waters, storm sewers, or dry wells. Do not use acids, bases, or metal brighteners with wash water, and use biodegradable, phosphate-free cleaners sparingly.
- OPR-SP-02: Implementation of proper hazardous material spill reporting and mitigation measures.
- PRE-WM-01: Implement Construction Waste Management Plan.
- CON-WM-02: Provide portable toilets during construction.
- OPR-WM-01: Discharge sanitary wastewater in compliance with county permit requirements.
- OPR-WM-02: Implement Operations Waste Management Plan.

2.1 Solid Waste

The following sections identify the types and quantities of solid waste anticipated to be generated throughout the RFA 5 Solar Facility. Solid waste disposal will be provided through a private contract with local commercial haulers.

2.1.1 Construction

Construction of the amended RFA 5 Solar Facility will generate a small amount of non-hazardous solid waste, which is handled by a local solid waste hauler and is managed through the implementation of measures outlined in the Construction Waste Management Plan (Site Certificate Condition PRE-WM-01). The types of solid waste will be similar to those from construction of the previously approved BCWF and solar facility, given that the same types of construction materials will be used (Section 7.1 below). Note that the wind portion of the BCWF is already operational; thus, the materials associated with the constructed portions of the Facility are not repeated for the purposes of this analysis. Similarly, the quantities of materials previously documented in previous amendments for the Facility, including the RFA 4 Solar Facility, are not repeated, and the quantities provided in this exhibit are for only the RFA 5 Solar Facility.

Waste materials generated through construction of the additional solar modules, BESS, and associated infrastructure will primarily consist of scrap metal (e.g., wire and rebar scraps), dirt and rock spoils, wood, concrete, concrete waste and other packaging materials, which are consistent with materials previously considered by Council. It is estimated that, cumulatively, construction of the RFA 5 Solar Facility will produce approximately 15,000 cubic yards of waste during active construction (most of which will be from packaging materials), estimated to span 18 months, which will be disposed of following the Construction Waste Management Plan consistent with Site Certificate Condition PRE-WM-01. Overall, the solid waste types and quantities from construction are typical of any large-scale construction project. Large dumpsters (e.g., approximately 10 tons each) will be used during construction to accommodate solid waste produced during active solar module installation.

Construction and grading of the access roads proposed inside the perimeter security fencing for the solar areas are expected to produce negligible amounts of dirt and rock spoils that will need disposal, because cut and fill measures are expected to balance the need for and use of soils. Foundation excavations for the solar inverter and transformer stations, BESS, O&M buildings, and proposed collector substations are not expected to produce significant amounts of dirt and rock spoils. These materials will be either spread on-site in compliance with soil conservation, erosion and sediment control measures under Site Certificate Condition PRE-SP-01 or hauled off-site in compliance with any applicable law or regulation.

Construction will create some concrete waste from the construction of foundations for the solar inverter/transformer stations, BESS, O&M buildings, and collector substation. Note that for the construction of foundations, the Certificate Holder or the Engineering, Procurement, and Construction contractor will buy concrete directly from licensed suppliers (i.e., with a valid water

use license) in the area; on-site batch plants are not proposed at this time. Concrete truck chutes may need to be washed down at each foundation site to prevent the concrete from hardening within the chutes. In these cases, the concrete wastewater will be collected in an infiltration pit or tank in a dedicated area, as described in the 1200-C National Pollutant Discharge Elimination System (NPDES) General Permit in accordance with current Oregon Department of Environmental Quality (ODEQ) regulations.

2.1.2 Operation

The increased number of solar modules, BESS, and related infrastructure proposed will not change the way that operational solid waste will be handled from what the Council previously considered for the RFA 4 Solar Facility. An insignificant amount of solid waste is expected to be generated during O&M of the RFA 5 Solar Facility. This waste may include equipment and components that are replaced, packing materials for replacement components, and waste typical of a small office. It is estimated that no more than 2.5 cubic yards of waste will be produced monthly during operations, to be disposed of at the Wasco County Landfill or Columbia Ridge Landfill, as identified in the Application for Site Certificate (ASC). The waste will be handled according to the Operations Waste Management Plan (Site Certificate Condition OPR-WM-02).

The BESS may also generate incidental waste from repair or replacement of electrical equipment. The BESS will require augmentation to compensate for degradation. Augmentation will add additional batteries to maintain output, but degraded batteries would not be removed from service. For this analysis, it is assumed that batteries are only removed due to needed repair or replacement during operations, and replacement of batteries for degradation would only happen at decommissioning.

For the replacement of lithium-ion (Li-ion) batteries during operation, the Certificate Holder will follow the handling guidelines of 49 Code of Federal Regulations (CFR) 173.185 (Department of Transportation Pipeline and Hazardous Material Administration 2026) related to the shipment of Li-ion batteries. Licensed third-party battery suppliers will be responsible for transporting batteries to and from the Solar Components in accordance with applicable regulations. Spent batteries will be disposed of at a facility permitted to handle them, in compliance with applicable Resource Conservation and Recovery Act (RCRA) and Toxic Substances Control Act regulations administered by the U.S. Environmental Protection Agency (EPA) or ODEQ. Note that used Li-ion batteries may contain hazardous waste and will be handled and disposed of per the most up-to-date guidelines at the end of their life, and in compliance with Site Certificate Condition GEN-SP-01.

Repair or replacement of the solar modules and associated electrical equipment could generate incidental waste. However, a solar module typically lasts at least 25 years without significant degradation in function, and will be replaced infrequently, if at all. Operation of the solar modules and associated infrastructure will not result in a significant amount of solid waste.

2.1.3 Decommissioning

The increased number of solar modules and BESS will not change the way that decommissioning solid waste will be handled from what the Council previously considered. The anticipated working life span of the RFA 5 Solar Facility is 40 years, after which time the associated infrastructure may be extended, repowered, or decommissioned. RFA 5 Solar Facility decommissioning is discussed in greater detail in Exhibit F.

In the event the RFA 5 Solar Facility would be decommissioned, and the site restored to a useful, non-hazardous condition for other uses, the amount of solid waste can be inferred from the materials inventory provided in Section 7.1 below. Should the RFA 5 Solar Facility be decommissioned, the Solar Components will be disassembled, and the materials will be recycled, sold for scrap, or taken to a landfill following the requirements that will be outlined in a retirement plan, per Site Certificate Conditions RET-RF-01 and RET-RF-02. Such components and equipment include solar modules, steel mounting racks, posts, and trackers; inverters, transformers, and battery energy storage modules; concrete and aggregate used for foundations and road construction; the proposed substations and O&M buildings; and other associated structures. Ancillary components, such as concrete foundations and gravel, will be removed in a manner similar to the methodology approved in the ASC. Concrete foundations would be cut and removed to a minimum depth that would be outlined in a retirement plan. Underground cables would typically be left in place, as removing them would cause unnecessary habitat disturbance. Metals and electrical components are expected to be recycled as scrap rather than disposed of in a landfill wherever possible. The portions of concrete foundations that are removed would be disposed of as construction waste or crushed and disposed of at an appropriate location onsite with permission from the landowner, otherwise, excess concrete will be disposed of at a licensed landfill. Transformers and other substation equipment would be removed to be reconditioned for use elsewhere or recycled as scrap metal.

The decommissioning of the BESS will involve disposing of battery components at an off-site facility designed and approved for disposal or recycling of batteries by licensed third-party battery suppliers, who will be responsible for transporting batteries to and from the RFA 5 Solar Facility in accordance with applicable regulations. The batteries will be disposed of at the time of decommissioning in the same manner described above for operational replacement. Ancillary components of the BESS will also be removed in a manner similar to the methodology of the other concrete pads.

2.2 Wastewater

Wastewater generated by the RFA 5 Solar Facility during construction will be from the following construction activities: portable toilets, dust abatement, mixing of concrete, concrete equipment washwater, and concrete washout water. Wastewater generated by the Solar Components during operation will be from the following activities: wastewater produced from the proposed and existing O&M buildings and from periodic washing solar panels. This section discusses how each of

these types of wastewaters will be handled throughout the life of the RFA 5 Solar Facility, though in nature it will not produce industrial wastewater.

2.2.1 Sanitary Wastewater

Sanitation during construction activities will be addressed through the provision of portable toilets located throughout the RFA 5 Site Boundary at locations that will be determined by the construction contractor prior to and during construction. Portable toilets will be provided by a licensed subcontractor, who will be responsible for servicing the toilets at regular intervals and disposing of wastewater in accordance with local jurisdictional regulations (Site Certificate Condition CON-WM-02). The construction contractor will ensure that a sufficient number of toilets are provided, and that the licensed subcontractor complies with applicable regulations, including the use of holding tanks for biological waste that conform to OAR 340-071 and transportation of waste in accordance with Oregon Revised Statute 466.005.

The proposed O&M building will include toilets for use by maintenance staff during operations; the existing O&M buildings at the BCWF and RFA 4 Solar Facility will also be available during operations. These on-site septic systems within the O&M buildings will be licensed, constructed, and maintained in compliance with state permit requirements and will have a discharge capacity of less than 2,500 gallons per day (per Site Certificate Condition OPR-WM-01).

2.2.2 Construction

The Certificate Holder expects the volume of wastewater to be generated during construction to be approximately 33.5 million gallons under worst-case conditions through all phases of construction, the majority used for dust control (see Exhibit O). Other construction activities that will produce small amounts of wastewater include mixing of concrete, washing equipment and vehicles, and washing concrete trucks after delivery of concrete loads. No construction water will be discharged into wetlands, streams, and other waterways. Due to the dry conditions at the Solar Components and the relatively low rates of water use and application, it is expected that any excess water used during construction will be lost within or near the RFA 5 Site Boundary through evaporation and infiltration.

Water for dust control will be sprayed onto disturbed areas by water truck during construction (per Site Certificate Condition CON-SP-02) and result in water loss primarily through evaporation and infiltration. Water trucks will be used to control dust generation throughout the construction site, in all disturbed areas including but not limited to foundation installations and trenching for collector lines. Water for dust control and road compaction will be applied via tanker truck in a manner that avoids erosion and sediment discharge and is consistent with the best management practices (BMP) presented in the NPDES 1200-C permit (Site Certificate Condition PRE-SP-01).

Wastewater will also be generated as concrete washout water produced during construction of foundations. Replacing previously approved Site Certificate Condition 86, current BMPs under the

1200-C NPDES General Permit require concrete washout water to be collected in an infiltration pit or tank in a dedicated area.

Washing of vehicles and equipment to prevent the spread of weeds will also generate small amounts of wastewater. Vehicle and equipment washing will occur at the temporary construction areas, and wastewater from these activities will be covered by the general NPDES 1200-C stormwater permit (Site Certificate Condition PRE-SP-01). The estimated amount of wastewater for vehicle and equipment washing is expected to be minor compared to overall Solar Components water use. The amount of water used for vehicle and equipment washing will be sufficiently small that it will not create runoff but will instead infiltrate into the ground.

Stormwater is not considered to be wastewater. Stormwater will be managed in accordance with the terms of the NPDES 1200-C stormwater permit (Site Certificate Condition PRE-SP-01). Stormwater will be diverted around construction sites as much as possible. Precipitation that falls on a construction site will be allowed to run back to natural drainages, with erosion and sedimentation control systems in place to maintain water quality.

2.2.3 Operation

Wastewater generated during operations will include sanitation at the proposed and existing O&M buildings and solar panel washing. The disposition of sanitary sewer waste from the O&M buildings is described above.

Operational wastewater sources will also include maintenance activities associated with the solar array. There may be periodic washing of the solar modules to minimize the effects of dust and dirt on energy production which will be dependent on weather conditions (e.g., during drought conditions when there is more dust the panels may require washing). The water used for array cleaning is not anticipated to require off-site disposal due to the extremely high evaporation rate and expected infiltration at the site. Any washwater will likely evaporate before it could be collected for transport off-site. Therefore, washwater will be evaporated or infiltrated into the ground. No acids, bases, or metal brighteners will be used in the washwater and biodegradable, phosphate-free cleaners may be used sparingly. Solar panel washing will adhere to the same measures outlined in Site Certificate Condition OPR-SP-01.

The Certificate Holder will ensure that there is no runoff of washwater from the site or discharges to surface waters, storm sewers, or dry wells. No new operational wastewater sources will result from BESS operations.

2.2.4 Decommissioning

During retirement, wastewater will result primarily from dust control while restoring the site, if grading is required. If required, the Certificate Holder expects the volume of water for dust suppression during retirement to be less than the volume used during construction. The number of on-site workers, and generation and handling of sanitary wastewater, will be comparable to construction. Retirement of the RFA 5 Solar Facility is discussed in greater detail in Exhibit F.

3.0 Description of Waste Management and Disposal Infrastructure – OAR 345-022-0120(4)(a)(B)

(B) A description of any structures, systems and equipment for management and disposal of solid waste, wastewater and storm water;

The Certificate Holder will comply with all applicable waste handling and disposal regulations on all lands associated with the Solar Components. Solid waste will be stored in a manner that does not constitute a fire, health, or safety hazard until such waste can be hauled off-site for recycling or disposal, as appropriate. The following sections describe the handling and disposal of waste planned for the Solar Components.

3.1 Construction

Construction will not add any new types of waste not previously contemplated for the Facility by the Council, and as a result, no new structures, systems, or equipment will be needed to manage and dispose of construction wastes that were not previously considered. All waste will be disposed of following the Construction Waste Management Plan (Site Certificate Condition PRE-WM-01). Standard construction waste bins will be kept on-site to keep construction debris until it is hauled off-site. Separate containers for small quantities of hazardous materials, such as oily rags or contaminated soil from minor spills, will be provided according to the contractor's Spill Prevention, Control, and Countermeasure Plan (SPCC) Plan (per Site Certificate Condition OPR-SP-02); hazardous materials will continue to be used and handled in accordance with Site Certificate Condition GEN-SP-01 and comply with all applicable laws and regulations. As noted earlier, materials will be recycled as feasible.

Areas around infrastructure for the Solar Components will be kept in an orderly condition throughout the construction period. Waste generated during construction will be temporarily collected at each construction site and then consolidated into larger disposal containers at the temporary construction yard(s). Disposal and recycling containers will be labeled by waste type to segregate materials as appropriate for recycling or disposal.

Disposal and recycling containers will be of adequate size, design, and number to handle the amount of waste being generated. Containers approximately 10 tons in capacity will be used to collect scrap metal, wood, and paper products, and other recyclable materials.

Solid waste generated during construction will be hauled away for recycling or disposal, as appropriate. Paper products and other materials—such as batteries, glass, metals, and plastic—will be recycled when practicable. As disposal and recycling containers reach capacity, they will be removed to disposal facilities that can handle these materials, and the containers will be replaced with empty units. Removal of the waste to appropriate disposal facilities will be done by a licensed waste hauler, under contract to the construction contractor (Site Certificate Condition PRE-WM-01). Licensed waste haulers must comply with OAR 340-093-0220 for transportation of wastes.

Soil and rock materials from foundation excavations will be spread within the temporary disturbance areas during construction or removed from the excavation site as soon as practicable. Most excess spoils will be incorporated into grading activities as fill material. Excess spoils would be a very small amount, and any excess spoils from excavation of the foundations will be spread out around the foundations. Disturbed soil and rock materials will be contained using appropriate BMPs as part of the NPDES 1200-C permit to prevent sedimentation release to local habitat. The construction contractor will arrange off-site disposal of excess, non-clean fill soils if this should be necessary, and will otherwise dispose of clean fill soils on-site.¹

The construction contractor will submit a plan for approval by the Certificate Holder on how solid waste materials during construction activities will be reused, recycled, or disposed of in accordance with Site Certificate Condition PRE-WM-01. That plan will specify the number and types of waste containers to be maintained at construction sites and the temporary construction areas, and how wastes are to be segregated for recycling or disposal. It will also specify the names and locations of appropriate recycling and waste disposal facilities, collection requirements, and hauling requirements.

Sanitation during construction activities will be addressed through the provision of portable toilets (per Site Certificate Condition CON-WM-02). Other types of wastewater generated during construction will be allowed to evaporate and infiltrate into the ground. Stormwater will be managed using BMPs in accordance with the terms of the NPDES 1200-C stormwater permit (Site Certificate Condition PRE-SP-01).

3.2 Operation

Any solid waste generated by the operation of the solar modules, BESS, and associated infrastructure will be collected by the maintenance crews and transported by a licensed waste hauler to off-site to facilities such as Wasco County Landfill or Columbia Ridge Landfill that handle the disposal or recycling of these items. Waste generated at the proposed O&M buildings will be collected in appropriate waste or recycling containers, to be removed by a licensed waste hauler. All operational waste will be handled according to the Operations Waste Management Plan (Site Certificate Condition OPR-WM-02).

Self-contained battery components and spent batteries will be removed and disposed of or recycled by a licensed vendor in compliance with applicable RCRA and Toxic Substances Control Act regulations administered by the EPA or ODEQ. The batteries will be handled by a licensed third-party battery supplier in accordance with applicable regulations.

Batteries may require periodic replacement if a component is found to be faulty; otherwise, the batteries are not expected to be replaced during the life of the RFA 5 Solar Facility. Modules lose their effectiveness through repeated charge/discharge cycles. To account for the degradation,

¹ Per OAR 340-093, "Clean Fill" means material consisting of soil, rock, concrete, brick, building block, tile, or asphalt paving that does not contain contaminants which could adversely impact the waters of the State or public health. This term does not include putrescible wastes, construction and demolition wastes, and industrial solid wastes.

additional batteries and associated equipment would be periodically augmented as needed to maintain 1,000 MWh, up to a total of 305 batteries installed at the site over the life of the facility. However, degraded batteries would not be removed and replaced; they would continue to operate at the degraded capacity. If batteries are replaced during operations, the RFA 5 Solar Facility operator will disconnect and de-energize the battery system prior to removal from the installed racks and package the batteries for transport to an approved facility.

The solar panel wash water will evaporate or will infiltrate into the ground near the point of use as allowed under the terms and conditions of the Facility's Water Pollution Control Facility Permit. No additional industrial wastewater streams will be generated during operation of the solar modules. No additional structures, systems, or equipment are required for stormwater resulting from the addition of the solar modules.

3.3 Decommissioning

Waste produced from retirement activities will be managed in a similar manner to the waste produced during construction. At the end of the RFA 5 Solar Facility's useful life, it will be dismantled, and components sold for reuse or scrap as practicable. Otherwise, components will be recycled or disposed of at a solid waste facility.

Once it is determined that the solar facilities will be decommissioned, the solar array will be removed and disposed of or recycled at the expected life span of 40 years. Decommissioning of the RFA 5 Solar Facility is described in Exhibit F. If continued reuse is not practical, the array will be dismantled and recycled to reclaim constituent parts, such as glass, aluminum, silicon solar cells, and metals.

The BESS will require disposal of the container structures housing the batteries and their constituent parts. The batteries will be disposed of at decommissioning in the same manner described above for operational replacement. Electrical systems and associated equipment will be disposed of as incidental waste and will be collected and recycled, as feasible. Non-recyclable waste will be collected and transported to the Wasco County Landfill, Columbia Ridge Landfill, or other licensed facility identified at the time of decommissioning.

4.0 Actions or Restrictions of Consumptive Water Use – OAR 345-022-0120(4)(a)(C)

(C) A discussion of any actions or restrictions proposed by the applicant to reduce consumptive water use during construction and operation of the facility;

The Certificate Holder will use appropriate BMPs to reduce water use to the greatest extent feasible. Solar facility construction by nature does not afford the construction contractor significant opportunities for reducing water use. Water will be used on an as-needed basis to construct concrete foundations and pads, suppress dust on the roads and other areas disturbed by grading, and wash out concrete truck chutes. Water will be used in areas of active construction or vehicle

movement, only as needed for dust control. To reduce the water used for dust suppression, stabilization materials such as palliative mulch, may be used to lengthen the interval between necessary dust control water applications. Weather and soil conditions will be regularly monitored to minimize watering while maintaining regulatory compliance for fugitive dust issues. Water for dust control will not be applied if weather conditions are such that disturbed soils will remain sufficiently damp and fugitive dust will not be created.

Water used for solar panel washing will be limited to the minimum necessary for effective panel function. Operation of the RFA 5 Solar Facility does not require consumptive water use, except for minimal amounts at the proposed O&M buildings similar in nature to typical office use (see Exhibit O). The water used at the proposed O&M buildings will meet building code requirements for water conservation practices. No additional water use, and therefore no additional actions to limit water use, will result from installation of the BESS.

5.0 Minimization and Recycling Plans – OAR 345-022-0120(4)(a)(D)

(D) The applicant's plans to minimize, recycle or reuse the solid waste and wastewater described in (A);

The changes described in RFA 5 will result in additional solid waste in the form of potential solar modules, BESS, and associated part replacements during operation, and through decommissioning at the time of retirement. These materials will be recycled where practicable and disposed of at an approved disposal location where necessary consistent with Site Certificate Condition OPR-WM-02. When recycling is not feasible, the materials will be sorted and stored in dumpsters or other suitable containers and transported by a licensed waste hauler to an approved disposal location where necessary (Site Certificate Condition OPR-WM-02). All operational waste will be handled according to the Operations Waste Management Plan (Site Certificate Condition OPR-WM-02).

6.0 Waste-Related Impacts

6.1 Description of Impacts – OAR 345-022-0120(4)(a)(E)

(E) A description of any adverse impact on surrounding and adjacent areas from the accumulation, storage, disposal and transportation of solid waste, wastewater and stormwater during construction and operation of the facility;

Solid waste, wastewater, and stormwater for the RFA 5 Solar Facility will be generated and managed consistent with the methods and procedures that have been previously approved by the Council for the Facility, and through the Site Certificate conditions discussed throughout this exhibit. As a result, there will be no new, adverse impacts resulting from the changes proposed under RFA 5.

6.2 Evidence that Impacts Will Be Minimal – OAR 345-022-0120(4)(a)(F)

(F) Evidence that adverse impacts described in (E) are likely to be minimal, taking into account any measures the applicant proposes to avoid, reduce or otherwise mitigate the impacts; and

As noted above, there will be no new, adverse impacts resulting from the changes proposed under RFA 5. Generation of wastes from construction will be minimized by estimating material needs and employing efficient construction practices. Waste generated during construction and operation of the RFA 5 Solar Facility will be recycled when feasible (Site Certificate Conditions PRE-WM-01 and OPR-WM-02).

Because waste generation will be minimal, there is little anticipated adverse impact on surrounding areas from solid waste or wastewater due to construction, operation, or retirement of the RFA 5 Solar Facility. Waste will be reused or recycled or, when necessary, disposed of at permitted disposal facilities. Any waste disposed of on-site (e.g., excess spoils from foundations) will be inert, disposed of in a manner consistent with applicable regulations, and protective of human health and the environment.

Water will be used primarily for dust control, concrete mixing, and concrete washout. Compliance with current BMPs under 1200-C NPDES General Permit require concrete washout water to be collected in an infiltration pit or tank in a dedicated area, due to the high-alkalinity of washout water; therefore, none of these activities will produce wastewater that will affect area streams, wetlands, or groundwater supplies. Sanitary waste during construction will be handled by a licensed contractor according to applicable regulations (per Site Certificate Condition CON-WM-02). Sanitary waste from the proposed O&M buildings during operation will be collected and treated by new septic systems; sanitary waste from the existing O&M buildings during operation will continue to be collected and treated by existing septic systems (per Site Certificate Condition OPR-WM-01). The RFA 5 Solar Facility will not generate industrial wastewater or effluent.

On-site disposal of materials that qualify as clean fill under ODEQ's rules and guidance will be conducted in accordance with OAR 340-093 and other applicable regulations. To meet the clean fill definition, any inert construction debris to be disposed of on-site as clean fill will be separated from other debris that is not inert or that otherwise does not satisfy ODEQ's definition of clean fill.

The Certificate Holder's proposed measures to avoid, reduce, and mitigate any impacts on-site or to adjacent land include storing and handling all cleaning products, paints and finishes, solvents, pesticides and herbicides, and other hazardous materials in containers that meet all federal, state, and local requirements for storage and containment (per Site Certificate Condition GEN-SP-01). As identified in the ASC and maintained for RFA 5, there will be no substantial quantities of these chemicals on-site. Petroleum products, including vehicle and equipment fuels, lubricating oils, and hydraulic fluids, will not be stored in substantial quantities on-site, but will instead be delivered on an as-needed basis using a specialized vehicle by a licensed contractor. The Certificate Holder proposes the temporary storage of some diesel fuel on-site during construction, but this will be in aboveground storage tanks in the construction yard(s), within an area that provides for secondary

containment. In addition, spill kits containing items such as absorbent pads will be located on equipment and in storage facilities to ensure a quick response to spills (Site Certificate Condition OPR-SP-02). Spills are proposed to be handled according to Site Certificate Condition OPR-SP-02 (i.e., the implementation of an SPCC Plan). Waste disposal or recycling will be handled by a licensed contractor.

Transportation of wastes to landfills or recycling facilities will involve periodic truck trips over public and private roads between the RFA 5 Solar Facility and the Wasco County Landfill or Columbia Ridge Landfill. Given the number and frequency of these trips, and the anticipated volume of waste materials, these trips are not anticipated to have adverse effects on the adjacent or surrounding areas (See Exhibit L for more detail on solid waste management).

6.3 Monitoring Program – OAR 345-022-0120(4)(a)(G)

(G) The applicant's proposed monitoring program, if any, for minimization of solid waste and wastewater impacts.

The Certificate Holder will monitor construction stormwater impacts in accordance with an NPDES 1200-C construction stormwater permit issued by ODEQ, and an associated ESCP (Site Certificate Condition PRE-SP-01; see Exhibit I for further information). The ESCP describes BMPs for erosion and sediment control, spill prevention and response procedures, proper disposal procedures, regular maintenance for vehicles and equipment, and employee training on spill prevention.

No significant impacts from solid waste and wastewater are expected from construction and operation of the RFA 5 Solar Facility. Waste management activities will be subject to periodic inspections to ensure compliance with applicable regulations and Site Certificate Conditions. Otherwise, no monitoring program aside from the ESCP is proposed.

7.0 Materials Analysis – OAR 345-022-0120(4)(b)

(b) A materials analysis, including:

As described in the Background Information Exhibit, the layout proposed for the RFA 5 Solar Facility includes the following infrastructure within the Solar Siting Area: solar arrays; BESS facilities and their subcomponents; medium-voltage collector lines; O&M building/structures (including storage containers, office trailers, and control building); perimeter fencing and facility entry gates; and one proposed collector substation with overhead electrical connection between the proposed substation and the approved Fox Canyon Substation (under construction).

The Certificate Holder is requesting to permit a range of technology to preserve permitting flexibility and will stipulate the precise details of PV solar energy generation and supporting facilities during final design and engineering prior to construction. Therefore, this section analyzes the number of materials anticipated for the RFA 5 Solar Facility, assuming the full range of proposed technologies.

This section describes the materials needed to support the RFA 5 Solar Facility including an addition of up to 200 MW AC of solar energy generation, BESS capable of storing up to 1,000 MWh, and associated infrastructure. Note that 217 wind turbines are already operating at the BCWF and the Biglow Solar facility approved under RFA 4 is under construction. Similarly, the quantities of materials documented in previous amendments for the Facility are not repeated and the quantities provided in this section are for only the additional Solar Components proposed in RFA 5. Industrial materials flowing into and out of the proposed facility during construction and operation are described below in response to OAR 345-022-0120(4)(b)(A).

7.1 Materials Inventory – OAR 345-022-0124(4)(b)(A)

(A) An inventory of substantial quantities of industrial materials flowing into and out of the proposed facility during construction and operation;

7.1.1 Construction Materials

The solar energy generation area proposed within the Solar Components will be composed of PV solar modules made of mono- or poly-crystalline cells supported on non-specular, galvanized steel racks and trackers and BESS equipment. The modules are inert and will not introduce any hazardous materials to the RFA 5 Site Boundary. Each tracker will be supported by steel posts. Other on-site equipment will include buried conduits, combiner boxes, inverters, and transformers. The solar inverters and transformer stations and associated proposed substation will require concrete foundations made of steel reinforcing bars and concrete (gravel, sand, cement, and water), as well as additional collector line and access roads to connect to the proposed substation and electrical infrastructure. Note that for the construction of foundations, concrete will come directly from licensed suppliers (i.e., with a valid water use license) in the area; an on-site batch plant is not proposed at this time.

The BESS will use Li-ion batteries. Li-ion batteries are modular in that each unit contains multiple smaller battery pouch cells. The cells are the primary containment for the electrolyte materials. The module containing the cells is relatively small, generally about the size of a desktop computer, and serves as leak-proof secondary containment. The cells are contained within a module that is collected in a pack, and then wired into a string, and finally into the full modular unit. The quantities per modular unit could change based on the most current model procured for the RFA 5 Solar Facility, but the general framework is typical for utility-scale Li-ion systems. Although module leaks are very unlikely, any material that might leak to the floor of the container will easily be contained within the modular unit(s). The BESS will be manufactured, assembled, and inspected off-site and will be shipped to the site as outdoor-rated prefabricated enclosures, which will be installed and electrically connected on-site. The BESS enclosures will also require concrete foundations made of steel reinforcing bars and concrete (gravel, sand, cement, and water). Consequently, the primary raw materials needed for the Solar Components' construction are rock, gravel, sand, water, cement, and steel rebar.

The materials used to construct the BESS and associated infrastructure are typical materials used for the construction of these facilities and are materials that the Council has already approved for other energy facilities, including the approved Biglow Solar facility (BCWF RFA 4).

Table N-1 provides a list of industrial materials that would be used during Project construction, based on current engineering estimates. Solid waste generated and flowing out of the facility during construction are outlined above. The amount of water used for concrete is discussed in Exhibit O.

Table N-1. Materials Inventory for Construction

Material	Quantity/Units	Ultimate Disposition
Solar modules	Maximum 391,152 modules	Throughout each solar module string
Steel solar module tracker posts	197,120 posts, 20,698 tons steel (210 pounds per post)	Throughout each solar module string
Solar modules per string	58 modules per two-string rack, 87 modules per three-string rack, and 116 modules per 4-string rack (max 13,488 strings)	Throughout each solar module string
Aggregate (rock and gravel)	80,400 tons total	See below by location
• Battery storage	14,500 tons (9 acres)	On-site graveled area
• Access roads	48,200 tons (17.6 miles new road)	On-site graveled area
• Substations	5,500 tons (3.7 acres)	On-site graveled area
• O&M Buildings/Structures	200 tons	On-site graveled area
• Temporary construction areas	12,000 tons (15 acres)	On-site graveled area
Concrete	1,800 cubic yards (yd ³) total	See below by location
• Battery storage	None – pier foundations will not require any concrete	Foundation
• Inverters/Transformers	None – pier foundations will not require any concrete)	Foundation
• Substation	900 yd ³	Foundation
• O&M Buildings/Structures	100 yd ³	Foundation
• Transmission line (230-kV) support structures	800 yd ³ (up to 21 poles)	Foundation
Battery components	10,000 cells per enclosure (total unit: 2,580,000 cells, 258 enclosures)	BESS
Batteries	258 enclosures	BESS
Centralized trunk bus system	1 system (aboveground aluminum trunk system)	Aboveground within the solar array
Substation generator step-up transformer	Up to 2 transformers	Within the substation footprints
Collector lines (34.5 kilovolt [kV])	103 miles (underground)	Between solar array and substations, underground only

Material	Quantity/Units	Ultimate Disposition
Transmission line (230-kV)	Approximately 2.7 miles total	Interconnecting the collector substations to Biglow Solar collector substation
Transmission line (230-kV) support structures	Approximately 21 poles	Aboveground structures
Inverter/Transformers	Solar: 54 inverters and transformers BESS: 305 inverters and 78 transformers	Aboveground throughout solar array and BESS
Fencing	44,880 feet total (8.5 miles)	Will remain around solar arrays, substation, and BESS
Fuel	Diesel: 4,080 gallons/week (approx. 16,320 gallons/month)	Temporary aboveground tanks within the temporary construction areas (two 1,000-gallon tanks; See Background Information Exhibit)

7.1.2 Operational Materials

No substantial quantities of industrial materials will be brought into or removed from the Facility during the operation of the RFA 5 Solar Facility. The materials that will be brought into or removed during operations are those needed for maintenance or replacement of damaged equipment (e.g., solar array components, electrical equipment) and will be delivered to the RFA 5 Solar Facility as needed.

Transformer oils will be used at the RFA 5 Solar Facility but will be fully contained within the electrical transformers. Fuel or oils needed for maintenance will be delivered by a licensed maintenance contractor on an as-needed basis, and no substantial quantities will be stored on-site.

During the Solar Components' lifetime, major maintenance issues may require the replacement of solar modules or other associated components; however, due to the unpredictable nature of major maintenance problems, no estimate has been provided for the number of major components that may be needed. Minor maintenance may also require the replacement and removal of smaller components, which are not expected to constitute substantial amounts of industrial materials.

Batteries may require periodic replacement if a component is found to be faulty; otherwise, the batteries are not expected to be replaced during the life of the Solar Components. Modules lose their effectiveness through repeated charge/discharge cycles. The BESS will require augmentation to compensate for degradation. Augmentation will add additional batteries to maintain a 250-MW output, but degraded batteries would not be removed from service. For this analysis, it is assumed that batteries are only removed due to needed repair or replacement during operations, and replacement of batteries for degradation would only happen at decommissioning. Due to the unpredictable nature of needed repair or replacement, no estimate has been provided for the number of batteries that will flow into and out of the Solar Components.

Table N-2 lists the cumulative materials and amounts used for O&M of the Solar Components.

Table N-2. Materials Inventory for Operations

Material	Quantity/Units	Ultimate Disposition
Spare solar modules	1,955 modules (0.5% of proposed modules)	Stored at the proposed O&M Buildings/Structures
Transformer oil	Substation generator step-up transformer: 10,000 – 15,000 gallons Solar array inverter step-up transformers: approximately 700 gallons each BESS inverter step-up transformers: approximately 700 gallons each	Within transformer boxes for cooling (No extra oil stored outside of transformers. Additional oil only required due to failure, provided on an as-needed basis)

7.2 Hazardous Materials Handling and Management – OAR 345-022-0120(4)(b)(B)

(B) The applicant's plans to manage hazardous substances during construction and operation, including measures to prevent and contain spills; and

During the construction or operations of the RFA 5 Solar Facility, it may be necessary to use minor quantities of hazardous substances. In compliance with Site Certificate Condition GEN-SP-01, all potentially hazardous substances will be sorted, handled, and disposed of in a manner that is protective of human health, safety, and the environment and that complies with all applicable local, state, and federal environmental laws and regulations.

Extremely hazardous substances in excess of threshold planning quantities, highly toxic substances, or explosive materials will not be necessary to support either the construction or operations of the RFA 5 Solar Facility. Additionally, materials used during construction and operations will be selected so that they minimize the potential for producing “hazardous waste,” as defined by RCRA. Accidental releases of hazardous materials will be prevented or minimized through proper containment of these substances during use and transportation to the RFA 5 Solar Facility as described in the SPCC Plan. Spills will be reported and mitigated according to Site Certificate Condition OPR-SP-02.

7.2.1 Construction

During construction of the RFA 5 Solar Facility, small quantities of potentially hazardous materials may be used including cleaners, insecticides or herbicides, paint, solvents, and spent vehicle and equipment fluids and components (e.g., used oil, used hydraulic fluid, spent fluids, oily rags, and spent lead-acid or nickel-cadmium batteries). Potentially hazardous substances will not be permanently present within the construction areas in quantities that exceed Oregon State Fire Marshal Reportable Quantities.²

² “Reportable quantity” refers to the amount of hazardous substance that has to be released into the environment before the U.S. Environmental Protection Agency requires notification of the release to the National Response

Fuels will be the only hazardous material that may be stored in substantial quantities on-site during construction. The Certificate Holder anticipates that at least two 1,000-gallon fuel tanks total (one diesel and one gasoline) may be kept on-site for fueling of construction equipment, or up to 2,000 gallons total. These will be stored in temporary aboveground tanks in the temporary construction area(s), within an area that provides for secondary containment. No gasoline tanks will be kept on-site during construction. It is anticipated that each diesel tank will be filled once per month or as needed. Secondary containment and refueling procedures for on-site fuel storage will follow the contractor's Hazardous Materials Management and Monitoring Plan. Secondary containment will comply with 40 CFR §112.7(c), which requires secondary containment for all above ground, buried, and partially buried containers. It is anticipated that the majority of fuel containers will have self-contained secondary containment (e.g., double-walled containers) that provide capacity for the entire container plus precipitation, but in some cases smaller containers (e.g., drums) will be placed in a constructed secondary containment area that is impervious and is diked or otherwise contained to provide the required fuel and precipitation capacity.

Construction-based equipment will be regularly inspected to detect potential leaks or other issues that may require maintenance. Potentially hazardous substances related to the maintenance of the construction equipment will only be brought to the construction site by a maintenance technician on an as-needed basis, and any unused or waste substances will be removed during the same service call. Refueling will take place a substantial distance from waterways or wetlands to prevent water quality impacts in the event of an accidental release.

As required by Site Certificate Condition PRE-WM-01, the Certificate Holder will implement a Construction Waste Management Plan for the RFA 5 Solar Facility. The plan will include measures to segregate all hazardous and universal waste such as used oil, oily rags, mercury-containing lights, and lead-acid and nickel-cadmium batteries for disposal by a licensed firm that specializes in their proper recycling/disposal.

The SPCC Plan will address spill prevention, and the Hazardous Materials Management and Monitoring Plan will address hazardous substances specifically. The Hazardous Materials Management and Monitoring Plan shall include operating procedures to prevent hazardous substances releases, control measures to contain hazardous substance releases, countermeasures to contain, cleanup, and mitigate hazardous substance releases, and procedures for required inspections and testing. The SPCC Plan will outline preventative measures and practices to reduce the likelihood of an accidental release of a hazardous or regulated liquid and, in the event such a release occurs, to expedite the response to and remediation of the release. If any inspection performed in accordance with the Hazardous Materials Management and Monitoring Plan identifies improper handling or storage of hazardous substances (as defined by Oregon Revised Statute 465.200) or improper record-keeping procedures, the Certificate Holder must correct such deficiencies promptly and must report the corrective actions.

Center pursuant to the Comprehensive Environmental Release, Compensation, and Liability Act, also known as Superfund. These numerical designations are listed under 49 CFR 172.101 Appendix A, Table 1 and Table 2.

In the event that an accidental spill occurs, the Certificate Holder will ensure the spill is mitigated according to applicable regulations and, if the spill is reportable (e.g., 42 gallons or impacts to waters of the state; ODEQ 2024), the Certificate Holder will report the spill within 72 hours (per Site Certificate Condition OPR-SP-02) and take appropriate remedial action. Consistent with Site Certificate Condition OPR-SP-02, spill kits with absorbent pads will be located on equipment and storage facilities to respond to accidental spills and will instruct employees on the proper handling, storage and cleanup of hazardous materials. Any reportable spills will be immediately called in to the Oregon Emergency Management Division's Oregon Emergency Response System, per OAR Chapter 340 Division 142. See the Background Exhibit for a listing of applicable regulations.

7.2.2 Operations

The Solar Components will not include substantial quantities of fuels, lubricating oils, hydraulic fluid for construction equipment, or other hazardous materials maintained on-site during operations. Small quantities of a few hazardous materials may be used; such materials may include cleaners, insecticides or herbicides, paint, or solvents. The Solar Components will not require a significant increase in use of these items, and none will be present in substantial reportable quantities. When not in use, these items will be stored in a secure location within the proposed O&M building/structures. In compliance with Site Certificate Condition OPR-WM-02, an Operational Waste Management Plan will be implemented for management of both hazardous and non-hazardous waste during operations.

The BESS may include hazardous substances within internal battery components; however, batteries are integrated to safely operate when used according to the recommendations of the manufacturer and when their integrity is maintained (not damaged and internal seal is intact). Li-ion batteries specifically present a flammability hazard and require cooling systems to prevent overheating. The BESS will have integrated safety systems that monitor battery performance to detect malfunctions and implement response measures. Batteries will be housed in leak-proof enclosures to prevent inadvertent releases of hazardous materials. O&M staff will conduct inspections of the BESS for damage. Li-ion batteries may contain hazardous waste and will be handled and disposed of per the most up-to-date guidelines at the end of their life.

For the replacement of Li-ion batteries specifically, the Certificate Holder will follow the handling guidelines of 49 CFR 173.185 (Department of Transportation Pipeline and Hazardous Material Administration 2026) related to the shipment of Li-ion batteries. The regulations include requirements for prevention of a dangerous evolution of heat, prevention of short circuits, and prevention of damage to the terminals. They also require that no battery will come into contact with other batteries or conductive materials. A licensed third-party battery supplier will transport batteries to and from the RFA 5 Solar Facility in accordance with applicable regulations. Spent batteries will be disposed of at a facility permitted to handle them in compliance with applicable RCRA and Toxic Substances Control Act regulations administered by the EPA or ODEQ. Adherence to the requirements and regulations (including personnel training, safe interim storage, and

segregation from other potential waste streams) will minimize safety hazards related to transport, use, or disposal of batteries.

Additionally, an SPCC Plan will be implemented. In the unlikely event of an accidental hazardous materials release, any spill or release will be cleaned up and the contaminated soil or other materials disposed of and treated according to applicable regulations. Employees at the Solar Components will be trained to be aware of the potential hazards through the availability of Safety Data Sheets, and to handle such releases in accordance with applicable regulations. See the Background Information Exhibit for a list of applicable regulations. Spill kits containing items such as absorbent pads will be located on equipment and in on-site storage facilities to respond to accidental spills, if any were to occur (per Site Certificate Condition OPR-SP-02). Employees handling hazardous materials will be instructed in the proper handling and storage of these materials, as well as where spill kits are located. The Certificate Holder will report spills or releases of hazardous materials during construction or operation as noted above to the Oregon Emergency Response System, per reporting requirements detailed in OAR Chapter 340 Division 142 and Site Certificate Condition OPR-SP-02.

7.3 Non-Hazardous Waste Management – OAR 345-022-0120(4)(b)(C)

(C) The applicant's plans to manage non-hazardous waste materials during construction and operation.

The Certificate Holder will continue to fully comply with all applicable waste handling and disposal regulations on all lands associated with the RFA 5 Solar Facility, during both its construction and operation. Solid waste will be stored in a manner that does not constitute a fire, health, or safety hazard until such time as it can be hauled off for recycling or disposal, as appropriate. Sections 2.0 and 3.0 above provide details on the types and amounts of waste, and procedures and systems for the handling and disposal of waste materials.

7.3.1 Construction

Construction of the RFA 5 Solar Facility will generate the same types of nonhazardous solid and liquid waste as the Facility, including the RFA 4 Solar Facility, which the Certificate Holder will manage according to the Construction Waste Management Plan (Site Certificate Condition PRE-WM-01). Waste construction materials generated from construction may include scrap steel, wood, concrete waste, excavated soil, and packaging material waste. When feasible, the waste generated during construction will be recycled. Steel scraps will be separated and recycled to the extent feasible. Wood from concrete forms will be reused when practicable and then recycled. Excess excavated material will be used to restore ground contours after construction, and to provide fill on-site or be transported off-site for disposal. Construction will not require the use of specialized structures, systems, or equipment for waste management or disposal. Standard construction waste bins will be kept on-site to keep construction debris until it is hauled off-site by a licensed waste hauler (see Exhibit L for waste service provider information). Further information regarding waste materials is included above.

Due to the high-alkalinity of washout water, current BMPs under a 1200-C NPDES General Permit require concrete washout water to be collected in an infiltration pit or tank in a dedicated area. Packaging waste (such as paper and cardboard) and refuse will be separated, accumulated in dumpsters, and periodically removed for recycling or disposal at the Wasco County Landfill or Columbia Ridge Landfill (see Exhibit L). In compliance with Site Certificate Condition CON-WM-02, portable toilets will be provided for on-site sewage handling during construction and will be pumped and cleaned regularly by the construction contractor.

Construction stormwater will be generated at the location of the solar array and battery energy storage construction sites. Such stormwater will be covered under the Solar Components' NPDES 1200-C construction permit and its associated ESCP consistent with Site Certificate Condition PRE-SP-01. The draft ESCP for the Solar Components is included as Attachment C-1 to Exhibit C.

7.3.2 Operations

Waste generated by operation of the RFA 5 Solar Facility will be negligible. Operation of the Solar Components will generate similar types of nonhazardous solid and liquid waste as previously approved for the Facility, which the Certificate Holder will manage according to the Operational Waste Management Plan (Site Certificate Condition OPR-WM-02). The Operational Waste Management Plan will include handling procedures for lithium-ion batteries (addressed in Section 2.0 above).

Administrative activities related to the Solar Components will be conducted at the proposed O&M buildings/structures. Office waste generated at the proposed O&M buildings/structures will be disposed of at the Wasco County Landfill or Columbia Ridge Landfill. The O&M office trailers, specifically, will include potable water and a sewer connection for toilets. The sanitary sewer will be collected and treated by a new septic system sufficient for all planned full-time staff during operation (in compliance with Site Certificate Condition OPR-WM-01). An On-Site Septic Permit would be obtained from the North Central Public Health District, which regulates the installation, repair, and maintenance of septic systems in Sherman County.

Solar panels will be washed, but no chemicals will be mixed with the wash water. Wash water will either evaporate or will infiltrate into the ground near the point of use, consistent with Site Certificate Condition OPR-SP-01 (see Exhibit O). The solar panel wash water will be sourced from the City of Wasco, or other permitted water sources as needed. No additional industrial wastewater streams will be generated by the Solar Components.

8.0 Conclusion

No significant impacts from solid waste and wastewater are expected from construction and operation of the RFA 5 Solar Facility. Waste management activities will be subject to periodic inspections to ensure compliance with applicable regulations and Site Certificate Conditions. Otherwise, no monitoring program aside from the ESCP is proposed.

9.0 References

Council (Oregon Energy Facility Siting Council). 2026. Final Order on Amendment #4 for the Biglow Canyon Wind Farm. Energy Facility Siting Council, Salem, Oregon. March 27, 2026.

<https://www.oregon.gov/energy/facilities/Facilities%20library/2026-03-27-BCWAMD4-Final-Order-Signed.pdf>.

Department of Transportation, Pipeline and Hazardous Material Administration 2026. 49 CFR 173.185 Lithium cells and batteries. <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-I/subchapter-C/part-173/subpart-E/section-173.185>

ODEQ (Oregon Department of Environmental Quality). 2024. When to report a spill. Accessed December 2024. <https://www.oregon.gov/deq/hazards-and-cleanup/er/pages/how-to-report-a-spill.aspx>.

10.0 Approval Standards and Submittal Requirements

Table N-3. Approval Standards and Submittal Requirements

Requirements	Location
OAR 345-022-0120 Waste Minimization	-
Approval Standards	
(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that, to the extent reasonably practicable:	-
(a) The applicant's solid waste and wastewater plans are likely to minimize generation of solid waste and wastewater in the construction and operation of the facility, and when solid waste or wastewater is generated, to result in recycling and reuse of such wastes;	Section 5.0
(b) The applicant's plans to manage the accumulation, storage, disposal and transportation of waste generated by the construction and operation of the facility are likely to result in minimal adverse impact on surrounding and adjacent areas.	Section 6.2
(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.	-
(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.	-
Submittal Requirements	
(4) To assist the Council in determining whether the standard outlined in (1) through (3) has been met, the Applicant must submit:	-

Request for Amendment 5
Exhibit N. Waste Minimization

Requirements	Location
(a) Information about the applicant's plans to minimize the generation of solid waste and wastewater and to recycle or reuse solid waste and wastewater, providing evidence to support a finding by the Council as required by OAR 345-022-0120. The applicant must include:	-
(A) A description of the major types of solid waste and wastewater that construction, operation and retirement of the facility are likely to generate, including an estimate of the amount of solid waste and wastewater;	Section 2.0
(B) A description of any structures, systems and equipment for management and disposal of solid waste, wastewater and storm water;	Section 3.0
(C) A discussion of any actions or restrictions proposed by the applicant to reduce consumptive water use during construction and operation of the facility;	Section 4.0
(D) The applicant's plans to minimize, recycle or reuse the solid waste and wastewater described in (A);	Section 5.0
(E) A description of any adverse impact on surrounding and adjacent areas from the accumulation, storage, disposal and transportation of solid waste, wastewater and stormwater during construction and operation of the facility;	Section 6.1
(F) Evidence that adverse impacts described in (E) are likely to be minimal, taking into account any measures the applicant proposes to avoid, reduce or otherwise mitigate the impacts; and	Section 6.2
(G) The applicant's proposed monitoring program, if any, for minimization of solid waste and wastewater impacts.	Section 6.3
(b) A materials analysis, including:	Section 7.0
(A) An inventory of substantial quantities of industrial materials flowing into and out of the proposed facility during construction and operation;	Section 7.1
(B) The applicant's plans to manage hazardous substances during construction and operation, including measures to prevent and contain spills; and	Section 7.2
(C) The applicant's plans to manage non-hazardous waste materials during construction and operation.	Section 7.3