

**WAC 173-441-020 Definitions.** The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

(1) **Definitions specific to this chapter:**

(a) "40 C.F.R. Part 98" or "40 C.F.R. § 98" means the United States Environmental Protection Agency's Mandatory Greenhouse Gas Reporting regulation including any applicable subparts. All references are adopted by reference as if it was copied into this rule. References mentioned in this rule are adopted as they exist on February 9, 2022, or the adoption date in WAC 173-400-025(1), whichever is later.

(b) "Asset controlling supplier" or "ACS" means any entity that owns or operates interconnected electricity generating facilities or serves as an exclusive marketer for these facilities even though it does not own them, and has been designated by the department and received a department-published emissions factor for the wholesale electricity procured from its system. Electricity from an asset controlling supplier is considered a specified source of electricity.

(c) "Biomass" means nonfossilized and biodegradable organic material originating from plants, animals, or microorganisms, including products, by-products, residues and waste from agriculture, forestry, and related industries as well as the nonfossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of nonfossilized and biodegradable organic material.

(d) "Carbon dioxide equivalent" or "CO<sub>2</sub>e" means a metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

(e) "Director" means the director of the department of ecology.

(f) "Ecology" means the Washington state department of ecology.

(g) "Electric power entity" includes any of the following that supply or transact electric power in Washington: (i) Electricity importers and exporters; (ii) retail providers, including multijurisdictional retail providers; and (iii) the asset controlling suppliers. See WAC 173-441-124 for more detail.

(h) "Facility" unless otherwise specified in WAC 173-441-122, 173-441-124, or any subpart of 40 C.F.R. Part 98 as adopted in WAC 173-441-120, means any physical property, plant, building, structure, source, or stationary equipment located on one or more contiguous or adjacent properties in actual physical contact or separated solely by a public roadway or other public right of way and under common ownership or common control, that emits or may emit any greenhouse gas. Operators of military installations may classify such installations as more than a single facility based on distinct and independent functional groupings within contiguous military properties.

(i) "Fuel products" means petroleum products, biomass-derived fuels, coal-based liquid fuels, natural gas, biogas, and liquid petroleum gas as established in 40 C.F.R. Part 98 Subparts LL through NN. Renewable or biogenic versions of fuel products listed in Tables MM-1 or NN-1 of 40 C.F.R. Part 98 are also considered fuel products. Assume complete combustion or oxidation of fuel products when calculating GHG emissions.

(j) "Fuel supplier" means any of the following suppliers of fuel products: (See WAC 173-441-122 for more detail.)

(i) A supplier of fossil fuel other than natural gas, including:

- (A) A supplier of petroleum products;
- (B) A supplier of liquid petroleum gas;
- (C) A supplier of coal-based liquid fuels.

(ii) A supplier of biomass-derived fuels;

(iii) A supplier of natural gas, including:

- (A) Operators of interstate and intrastate pipelines;
- (B) Suppliers of liquefied or compressed natural gas;
- (C) Natural gas liquid fractionators;
- (D) Local distribution companies.

(k) "Greenhouse gas," "greenhouse gases," "GHG," and "GHGs" includes carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Beginning on January 1, 2012, "greenhouse gas" also includes any other gas or gases designated by ecology by rule in Table A-1 in WAC 173-441-040.

(l) "Operator" means any individual or organization who operates or supervises a facility, supplier, or electric power entity. The operator of an electric power entity may be the electric power entity itself.

(m) "Owner" means any individual or organization who has legal or equitable title to, has a leasehold interest in, or control of a facility, supplier, or electric power entity, except an individual or organization whose legal or equitable title to or leasehold interest in the facility, supplier, or electric power entity arises solely because the person is a limited partner in a partnership that has legal or equitable title to, has a leasehold interest in, or control of the facility, supplier, or electric power entity shall not be considered an "owner" of the facility, supplier, or electric power entity.

(n) "Person" includes the owner or operator of:

- (i) A facility;
- (ii) A supplier; or
- (iii) An electric power entity.

(o) "Product data" means data related to a facility's production that is part of the annual GHG report.

(p) "Reporter" means any of the following subject to this chapter:

- (i) A facility;
- (ii) A supplier; or
- (iii) An electric power entity.

(q) "Supplier" means any person who is a:

(i) Fuel supplier that produces, imports, or delivers, or any combination of producing, importing, or delivering, fuel products in Washington; and

(ii) Supplier of carbon dioxide that produces, imports, or delivers a quantity of carbon dioxide in Washington that, if released, would result in emissions in Washington.

(2) **Definitions specific to the Climate Commitment Act program.**

For those terms not listed in subsection (1) of this section, WAC 173-441-122(2), or 173-441-124(2), the definitions from chapter 70A.65 RCW, as described in chapters 173-446 and 173-446A WAC apply in this chapter in order of precedence.

(3) **Definitions from 40 C.F.R. Part 98.** For those terms not listed in subsection (1) or (2) of this section, WAC 173-441-122(2), or 173-441-124(2), the definitions found in 40 C.F.R. § 98.6 or a subpart

as adopted in this chapter, apply in this chapter as modified in WAC 173-441-120(2).

AMENDATORY SECTION (Amending WSR 22-05-050, filed 2/9/22, effective 3/12/22)

**WAC 173-441-050 General monitoring, reporting, recordkeeping and verification requirements.** Persons subject to the requirements of this chapter must submit GHG reports to ecology, as specified in this section. Every metric ton of CO<sub>2</sub>e emitted by a reporter required to report under this chapter and covered under any applicable source category listed in WAC 173-441-120, 173-441-122, or 173-441-124 must be included in the report.

(1) **General.** Follow the procedures for emission calculation, monitoring, quality assurance, missing data, recordkeeping, and reporting that are specified in each relevant section of this chapter.

(2) **Schedule.** The annual GHG report must be submitted as follows:

(a) Report submission due date:

(i) A person required to report or voluntarily reporting GHG emissions under WAC 173-441-030 must submit the report required under this chapter to ecology no later than March 31st of each calendar year for GHG emissions in the previous calendar year. Electric power entities reporting under WAC 173-441-124 must submit a report (~~based on best available information by March 31st. Electric power entities reporting under WAC 173-441-124 must submit a final revised report~~) by June 1st of each calendar year for GHG emissions in the previous calendar year (~~consistent with deadlines for electric power entities in external GHG emissions trading programs~~).

(ii) Unless otherwise stated, if the final day of any time period falls on a weekend or a state holiday, the time period shall be extended to the next business day.

(b) Reporting requirements begin:

(i) For an existing reporter that began operation before January 1, 2012, report emissions for calendar year 2012 and each subsequent calendar year.

(ii) For a new reporter that begins operation on or after January 1, 2012, and becomes subject to the rule in the year that it becomes operational, report emissions beginning with the first operating month and ending on December 31st of that year. Each subsequent annual report must cover emissions for the calendar year, beginning on January 1st and ending on December 31st.

(iii) For any reporter that becomes subject to this rule because of a physical or operational change that is made after January 1, 2012, report emissions for the first calendar year in which the change occurs.

(A) Reporters begin reporting with the first month of the change and ending on December 31st of that year. For a reporter that becomes subject to this rule solely because of an increase in hours of operation or level of production, the first month of the change is the month in which the increased hours of operation or level of production, if maintained for the remainder of the year, would cause the reporter to exceed the applicable threshold.

(B) Suppliers and electric power entities begin reporting January 1st and ending on December 31st the year of the change.

(C) For all reporters, each subsequent annual report must cover emissions for the calendar year, beginning on January 1st and ending on December 31st.

(3) **Content of the annual report.** Each annual GHG report must contain the following information. All reported information is subject to verification by ecology as described in subsection (5) of this section.

(a) Reporter name, reporter ID number, and physical street address of the reporter, including the city, state, and zip code. If the facility does not have a physical street address, then the facility must provide the latitude and longitude representing the geographic centroid or center point of facility operations in decimal degree format. This must be provided in a comma-delimited "latitude, longitude" coordinate pair reported in decimal degrees to at least four digits to the right of the decimal point.

(b) Year and months covered by the report.

(c) Date of submittal.

(d) For facilities, report annual emissions of each GHG (as defined in WAC 173-441-020) and each fluorinated heat transfer fluid, as follows:

(i) Annual emissions (including biogenic CO<sub>2</sub>) aggregated for all GHGs from all applicable source categories in WAC 173-441-120 and expressed in metric tons of CO<sub>2</sub>e calculated using Equation A-1 of WAC 173-441-030 (1)(b)(iii).

(ii) Annual emissions of biogenic CO<sub>2</sub> aggregated for all applicable source categories in WAC 173-441-120, expressed in metric tons.

(iii) Annual emissions from each applicable source category in WAC 173-441-120, expressed in metric tons of each applicable GHG listed in (d)(iii)(A) through (F) of this subsection.

(A) Biogenic CO<sub>2</sub>.

(B) CO<sub>2</sub> (including biogenic CO<sub>2</sub>).

(C) CH<sub>4</sub>.

(D) N<sub>2</sub>O.

(E) Each fluorinated GHG.

(F) For electronics manufacturing each fluorinated heat transfer fluid that is not also a fluorinated GHG as specified under WAC 173-441-040.

(iv) Emissions and other data for individual units, processes, activities, and operations as specified in the "data reporting requirements" section of each applicable source category referenced in WAC 173-441-120.

(v) Indicate (yes or no) whether reported emissions include emissions from a cogeneration unit located at the facility.

(vi) When applying (d)(i) of this subsection to fluorinated GHGs and fluorinated heat transfer fluids, calculate and report CO<sub>2</sub>e for only those fluorinated GHGs and fluorinated heat transfer fluids listed in WAC 173-441-040.

(vii) For reporting year 2014 and thereafter, you must enter into verification software specified by the director the data specified in the verification software records provision in each applicable record-keeping section. For each data element entered into the verification software, if the software produces a warning message for the data value and you elect not to revise the data value, you may provide an ex-

planation in the verification software of why the data value is not being revised. Whenever the use of verification software is required or voluntarily used, the file generated by the verification software must be submitted with the facility's annual GHG report.

(e) For suppliers and electric power entities, report annual emissions of each GHG (as defined in WAC 173-441-020) as follows:

(i) Annual emissions (including biogenic CO<sub>2</sub>) aggregated for all GHGs from all applicable source categories in WAC 173-441-122 and 173-441-124 and expressed in metric tons of CO<sub>2</sub>e calculated using Equation A-1 of WAC 173-441-030 (1)(b)(iii).

(ii) Annual emissions of biogenic CO<sub>2</sub> aggregated for all applicable source categories in WAC 173-441-122 and 173-441-124, expressed in metric tons.

(iii) Annual emissions from each applicable source category in WAC 173-441-122 and 173-441-124, expressed in metric tons of each applicable GHG listed in subsection (3)(d)(iii)(A) through (E) of this section.

(A) Biogenic CO<sub>2</sub>.

(B) CO<sub>2</sub> (including biogenic CO<sub>2</sub>).

(C) CH<sub>4</sub>.

(D) N<sub>2</sub>O.

(E) Each fluorinated GHG.

(iv) Emissions and other data for individual units, processes, activities, and operations as specified in the "data reporting requirements" section of each applicable source category referenced in WAC 173-441-122 and 173-441-124.

(f) A written explanation, as required under subsection (4) of this section, if you change emission or product data calculation methodologies during the reporting period or since the previous reporting period.

(g) Each data element for which a missing data procedure was used according to the procedures of an applicable subpart referenced in WAC 173-441-120, 173-441-122, or 173-441-124 and the total number of hours in the year that a missing data procedure was used for each data element.

(h) A signed and dated certification statement provided by the designated representative of the owner or operator, according to the requirements of WAC 173-441-060 (5)(a).

(i) NAICS code(s) that apply to the reporter. NAICS codes are subject to approval by ecology.

(i) Primary NAICS code. Report the NAICS code that most accurately describes the reporter's primary product/activity/service. The primary product/activity/service is the principal source of revenue for the reporter. A reporter that has two distinct products/activities/services providing comparable revenue may report a second primary NAICS code.

(ii) Additional NAICS code(s). Report all additional NAICS codes that describe all product(s)/activity(s)/service(s) at the reporter that are not related to the principal source of revenue.

(j) Legal name(s) and physical address(es) of the highest-level United States parent company(s) of the owners (or operators) of the reporter and the percentage of ownership interest for each listed parent company as of December 31st of the year for which data are being reported according to the following instructions.

(i) If the reporter is entirely owned by a single United States company that is not owned by another company, provide that company's

legal name and physical address as the United States parent company and report 100 percent ownership.

(ii) If the reporter is entirely owned by a single United States company that is, itself, owned by another company (e.g., it is a division or subsidiary of a higher-level company), provide the legal name and physical address of the highest-level company in the ownership hierarchy as the United States parent company and report 100 percent ownership.

(iii) If the reporter is owned by more than one United States company (e.g., company A owns 40 percent, company B owns 35 percent, and company C owns 25 percent), provide the legal names and physical addresses of all the highest-level companies with an ownership interest as the United States parent companies and report the percent ownership of each company.

(iv) If the reporter is owned by a joint venture or a cooperative, the joint venture or cooperative is its own United States parent company. Provide the legal name and physical address of the joint venture or cooperative as the United States parent company, and report 100 percent ownership by the joint venture or cooperative.

(v) If the reporter is entirely owned by a foreign company, provide the legal name and physical address of the foreign company's highest-level company based in the United States as the United States parent company, and report 100 percent ownership.

(vi) If the reporter is partially owned by a foreign company and partially owned by one or more United States companies, provide the legal name and physical address of the foreign company's highest-level company based in the United States, along with the legal names and physical addresses of the other United States parent companies, and report the percent ownership of each of these companies.

(vii) If the reporter is a federally owned facility, report "U.S. Government" and do not report physical address or percent ownership.

(k) An indication of whether the facility includes one or more plant sites that have been assigned a "plant code" by either the Department of Energy's Energy Information Administration or by the Environmental Protection Agency's (EPA) Clean Air Markets Division.

(l) Facilities must report electricity information including:

(i) Total annual electricity purchased in megawatt hours (MWh), itemized by the supplying utility or, if not obtained from a utility, from the supplying electric power entity for each different source of electricity. Total annual purchases must be reported separately for each supplying utility or electric power entity.

(ii) Self-generated electricity should be itemized separately if a facility includes an electricity generating unit as follows:

(A) Total facility nameplate generating capacity in megawatts (MW).

(B) Generated electricity in MWh provided or sold to each retail provider, electricity marketer, or other reportable end-user that is not a part of the facility, itemized by end-user.

(C) Generated electricity for on-site industrial applications not related to electricity generation in MWh.

(m) Report fuel use or supplied as follows:

(i) Facilities, report each fuel combusted separately by type, quantity, and units of measurement.

(ii) Fuel suppliers, report:

(A) Each fuel supplied separately by type, quantity, and units of measurement; and

(B) Separately report the quantity of each fuel type by purpose if the fuel supplier reports that the fuel is used for one of the purposes described in WAC 173-441-122 (5) (d) (xi).

(n) Facilities, report total annual facility product data, units of production, and specific product based on their first primary NAICS code.

(i) Facilities with a primary NAICS code listed in Table 050-1 of this section must report total annual facility product data as described in Table 050-1. Facilities may additionally report total annual facility product data as described in Table 050-1 for any reported secondary NAICS code. Use six digit NAICS codes when available, otherwise use the shorter NAICS codes listed below substituting the values in the full reported six digit NAICS code for "X".

**Table 050-1: Total Annual Facility Product Data Requirements by Primary NAICS Code.**

<b>Primary NAICS Code and Sector Definition</b>	<b>Activity</b>	<b>Production Metric</b>
112112: Cattle Feedlots	Cattle feedlots	Cattle head days
211130: Natural Gas Extraction	Natural gas extraction	Million standard cubic feet of natural gas extracted
212399: All Other Nonmetallic Mineral Mining	Freshwater diatomite filter aids manufacturing	Metric tons of mineral product produced
2211XX: Electric Power Generation, Transmission and Distribution	Electric power generation, transmission and distribution	Net megawatt hours
221210: Natural Gas Distribution	Natural gas distribution	Million standard cubic feet of natural gas distributed
221330: Steam and Air-conditioning Supply	Steam supply	Kilograms steam produced
311213: Malt Manufacturing	Malt manufacturing	Metric tons of malt produced
3114XX: Fruit and Vegetable Preserving and Specialty Food Manufacturing	Fruit and vegetable preserving and specialty food manufacturing	Metric tons of food product produced
3115XX: Dairy Product Manufacturing	Dairy product manufacturing	Metric tons of dairy product produced
311611: Animal (except poultry) Slaughtering	Animal (except poultry) slaughtering	Metric tons of meat product processed
311613: Rendering and Meat By-product Processing	Rendering and meat by-product processing	Metric tons of meat by-product processed
311919: Other Snack Food Manufacturing	Other snack food manufacturing	Metric tons of snack food produced
311920: Coffee and Tea Manufacturing	Coffee and tea manufacturing	Metric tons of coffee and tea produced
321XXX: Wood Product Manufacturing	Wood product manufacturing	Air dried (10 percent moisture) metric tons of wood product produced
3221XX: Pulp, Paper, and Paperboard Mills	Pulp, paper, and paperboard mills	Air dried (10 percent moisture) metric tons of produced: <ul style="list-style-type: none"> <li>• Pulp product; or</li> <li>• Paper; or</li> <li>• Paperboard</li> </ul>
322299: All Other Converted Paper Product Manufacturing	All other converted paper product manufacturing	Air dried (10 percent moisture) metric tons of converted paper product produced

<b>Primary NAICS Code and Sector Definition</b>	<b>Activity</b>	<b>Production Metric</b>
324110: Petroleum Refineries	Petroleum refineries	Report all of the following: <ul style="list-style-type: none"> <li>• Facility level Subpart MM report as reported under 40 C.F.R. Part 98;</li> <li>• Barrels of crude oil and intermediate products received from off-site that are processed at the facility; and</li> <li>• Beginning with the first emissions year after a refinery's first turnaround after 2022, the refinery must also submit complexity weighted barrel (CWB) as described in CARB MRR section 95113(l)(3) as adopted by 7/1/2021. CWB supporting data must also be submitted to Ecology as described in CARB MRR section 95113(l)(3).</li> </ul>
324121: Asphalt Paving Mixture and Block Manufacturing	Asphalt paving mixture and block manufacturing	Metric tons of asphalt paving mixture and block produced
3251XX: Basic Chemical Manufacturing	Basic chemical manufacturing	Metric tons of chemical produced
325311: Nitrogenous Fertilizer Manufacturing	Nitric acid production	Metric tons of nitric acid produced
32721X: Glass and Glass Product Manufacturing	Glass and glass product manufacturing	Metric tons of glass produced
327310: Cement Manufacturing	Cement manufacturing	Metric tons of adjusted clinker and mineral additives produced
327390: Other Concrete Product Manufacturing	Other concrete product manufacturing	Metric tons of concrete product produced
327410: Lime Manufacturing	Lime manufacturing	Metric tons of lime produced
327420: Gypsum Product Manufacturing	Gypsum product manufacturing	Metric tons of gypsum product produced
331110: Iron and Steel Mills and Ferroalloy Manufacturing	Steel production using an electric arc furnace (EAF)	Metric tons of steel produced
33131X: Alumina and Aluminum Production and Processing	Alumina and aluminum production and processing	Metric tons of aluminum produced
331410: Nonferrous Metal (except aluminum) Smelting and Refining	Granular polysilicon production	Metric tons of granular polysilicon produced
332111: Iron and Steel Forging	Iron forging	Metric tons of iron produced
334413: Semiconductor and Related Device Manufacturing	Semiconductor and related device manufacturing	Square meters of mask layer produced
335991: Carbon and Graphite Product Manufacturing	Carbon and graphite product manufacturing	Metric tons of carbon and graphite product produced
3364XX: Aerospace Product and Parts Manufacturing	Aerospace product and parts manufacturing	<ul style="list-style-type: none"> <li>• Metric tons of aircraft product and parts produced; or</li> <li>• Square meters of external surface area of aircraft</li> </ul>
486210: Pipeline Transportation of Natural Gas	Pipeline transportation of natural gas	Million standard cubic feet of natural gas transported
488119: Other Airport Operations	Other airport operations	Passenger kilometers serviced
562111: Solid Waste Collection	Solid waste collection	Metric tons of total solid waste collected
562212: Solid Waste Landfill	Solid waste landfill	Metric tons of total waste entered into landfill
562213: Solid Waste Combustors and Incinerators	Solid waste combustors and incinerators	Net megawatt hours



Primary NAICS Code and Sector Definition	Activity	Production Metric
611310: Colleges, Universities, and Professional Schools	Colleges, universities, and professional schools	Students serviced
928110: National Security	Military bases	Troops stationed

(ii) Facilities without a primary NAICS code listed in Table 050-1 of this section must contact ecology no later than 45 calendar days prior to the emissions report deadline established in subsection (2) of this section and report total annual facility product data as instructed by the department. If ecology does not identify product data for a facility, a facility must use the energy-based calculation method described in Equation 050-1 of this section. Report product data and inputs to the equation. Product data calculated using the energy-based method shall use the following equation:

$$\text{Product data} = S_{\text{consumed}} + F_{\text{consumed}} - e_{\text{sold}} \quad (\text{Eq. 050-1})$$

Where:

"S<sub>Consumed</sub>" is the annual amount of steam consumed, measured in MMBtu, at the facility for any process, including heating or cooling applications. This value shall exclude any steam used to produce electricity. This value shall exclude steam produced from an on-site cogeneration unit;

"F<sub>Consumed</sub>" is the annual amount of energy produced due to fuel combustion at the facility, measured in MMBtu. This value shall be calculated based on measured higher heating values or the default higher heating value of the applicable fuel in Table C-1 of 40 C.F.R. Part 98. This value shall include any energy from fuel combusted in an on-site electricity generation or cogeneration unit. This value shall exclude energy to generate the steam accounted for in the "S<sub>Consumed</sub>" term;

"e<sub>Sold</sub>" is the annual amount of electricity sold or provided for off-site use, measured in MWh and converted to MMBtu using the reporting year U.S. Energy Information Administration conversion factor;

(iii) Facilities with a change in operation that alters either their primary NAICS code, units of production, or product data measurement method must contact ecology no later than 45 calendar days prior to the emissions report deadline established in subsection (2) of this section and report total annual facility product data as instructed by the department. If ecology does not identify product data for a facility, a facility must use the energy-based calculation method described in Equation 050-1 of this section. Report product data and inputs to the equation.

(iv) For a primary NAICS code in Table 050-1 that has multiple production metrics, a facility that wishes to change their reported production metric must contact ecology no later than 45 calendar days prior to the emissions report deadline established in subsection (2) of this section and report total annual facility production data as instructed by the department.

(o) Reporters that cease operation, other than routine maintenance or seasonal shutdowns, for more than 90 calendar days must provide the following information:

- (i) The anticipated type of cessation: Closure or curtailment;
- (ii) Date cessation began;
- (iii) Date cessation ended (if applicable); and
- (iv) Reason for cessation and/or resumption of operation.

(p) If there is an increase or decrease of more than five percent in emissions of greenhouse gases in relation to the previous year, the reporter must provide a brief narrative description of what caused the increase or decrease in emissions.

(4) **Emission calculations.** In preparing the GHG report, you must use the calculation methodologies specified in the relevant sections of this chapter. For each source category, you must use the same calculation methodology as previous reports. This includes throughout a reporting period, and between reporting years. An owner or operator intending to change methodologies must provide a written explanation at least 60 calendar days before the report submission due date in subsection (2)(a) of this section of why a change in methodology was required. Ecology has 45 calendar days to approve or reject the change in method. The reporter must continue to use existing methods until the change is approved by ecology.

(5) **Verification.** To verify the completeness and accuracy of reported GHG emissions, ecology may review the certification statements described in subsection (3)(h) of this section and any other credible evidence, in conjunction with a comprehensive review of the GHG reports and periodic audits of selected reporting facilities. Nothing in this section prohibits ecology from using additional information to verify the completeness and accuracy of the reports. Reporters must cooperate with ecology's efforts to verify GHG reports.

(6) **Recordkeeping.** A person that is required to report GHGs under this chapter must keep records as specified in this subsection. Retain all required records for at least 10 years from the date of submission of the annual GHG report for the reporting year in which the record was generated. Upon request by ecology, the person must submit the records required under this section within 15 business days of receipt of the notification, unless a different schedule is agreed to by ecology. Records may be retained off-site if the records are readily available for expeditious inspection and review. For records that are electronically generated or maintained, the equipment or software necessary to read the records must be made available, or, if requested by ecology, electronic records must be converted to paper documents. You must retain the following records, in addition to those records prescribed in each applicable section of this chapter:

(a) A list of all units, operations, processes, and activities for which GHG emissions were calculated.

(b) The data used to calculate the GHG emissions for each unit, operation, process, and activity, categorized by fuel or material type. These data include, but are not limited to, the following information:

- (i) The GHG emissions calculations and methods used.
- (ii) Analytical results for the development of site-specific emissions factors.
- (iii) The results of all required analyses for high heat value, carbon content, and other required fuel or feedstock parameters.
- (iv) Any facility operating data or process information used for the GHG emission calculations.

(c) The annual GHG reports.

(d) Missing data computations. For each missing data event, also retain a record of the cause of the event and the corrective actions taken to restore malfunctioning monitoring equipment.

(e) Owners or operators required to report under WAC 173-441-030 must keep a written GHG monitoring plan (monitoring plan, plan).

(i) At a minimum, the GHG monitoring plan must include the following elements:

(A) Identification of positions of responsibility (i.e., job titles) for collection of the emissions data.

(B) Explanation of the processes and methods used to collect the necessary data for the GHG calculations.

(C) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems, flow meters, and other instrumentation used to provide data for the GHGs reported under this chapter.

(D) Facilities must reference to one or more simplified block diagrams that provide a clear visual representation of the relative locations and positions of measurement devices and sampling locations, as applicable, required for calculating covered emissions and covered product data (e.g., temperature, total pressure, HHV, fuel consumption). The diagram(s) must include fuel sources, combustion units, and production processes, as applicable.

(ii) The GHG monitoring plan may rely on references to existing corporate documents (e.g., standard operating procedures, quality assurance programs under appendix F to 40 C.F.R. Part 60 or appendix B to 40 C.F.R. Part 75, and other documents) provided that the elements required by (e) (i) of this subsection are easily recognizable.

(iii) The owner or operator must revise the GHG monitoring plan as needed to reflect changes in production processes, monitoring instrumentation, and quality assurance procedures; or to improve procedures for the maintenance and repair of monitoring systems to reduce the frequency of monitoring equipment downtime.

(iv) Upon request by ecology, the owner or operator must make all information that is collected in conformance with the GHG monitoring plan available for review during an audit within 15 business days of receipt of the notification, unless a different schedule is agreed to by ecology. Electronic storage of the information in the plan is permissible, provided that the information can be made available in hard copy upon request during an audit.

(f) The results of all required certification and quality assurance tests of continuous monitoring systems, fuel flow meters, and other instrumentation used to provide data for the GHGs reported under this chapter.

(g) Maintenance records for all continuous monitoring systems, flow meters, and other instrumentation used to provide data for the GHGs reported under this chapter.

(h) Suppliers and electric power entities must retain any other data specified in WAC 173-441-122 and 173-441-124.

**(7) Annual GHG report revisions.**

(a) A person must submit a revised annual GHG report within 45 calendar days of discovering that an annual GHG report that the person previously submitted contains one or more substantive errors. The revised report must correct all substantive errors.

(b) Ecology may notify the person in writing that an annual GHG report previously submitted by the person contains one or more substantive errors. Such notification will identify each such substantive

error. The person must, within 45 calendar days of receipt of the notification, either resubmit the report that, for each identified substantive error, corrects the identified substantive error (in accordance with the applicable requirements of this chapter) or provide information demonstrating that the previously submitted report does not contain the identified substantive error or that the identified error is not a substantive error.

(c) A substantive error is an error that impacts the quantity of GHG emissions reported, product data reported, or otherwise prevents the reported data from being validated or verified.

(d) Notwithstanding (a) and (b) of this subsection, upon request by a person, ecology may provide reasonable extensions of the 45-day period for submission of the revised report or information under (a) and (b) of this subsection. If ecology receives a request for extension of the 45-day period, by email, at least five business days prior to the expiration of the 45 calendar day period, and ecology does not respond to the request by the end of such period, the extension request is deemed to be automatically granted for 15 more calendar days. During the automatic 15-day extension, ecology will determine what extension, if any, beyond the automatic extension is reasonable and will provide any such additional extension.

(e) The owner or operator must retain documentation for 10 years to support any revision made to an annual GHG report.

(8) **Calibration and accuracy requirements.** The owner or operator of a facility that is subject to the requirements of this chapter must meet the applicable flow meter calibration and accuracy requirements of this subsection. The accuracy specifications in this subsection do not apply where either the use of company records (as defined in WAC 173-441-020(3)) or the use of "best available information" is specified in an applicable subsection of this chapter to quantify fuel usage and/or other parameters. Further, the provisions of this subsection do not apply to stationary fuel combustion units that use the methodologies in 40 C.F.R. Part 75 to calculate CO<sub>2</sub> mass emissions. Measurement devices used for financial transactions between two or more independent parties meet the calibration and accuracy requirements of this chapter.

(a) Except as otherwise provided in (d) through (f) of this subsection, flow meters that measure liquid and gaseous fuel feed rates, process stream flow rates, product data measuring devices, or feedstock flow rates and provide data for the GHG emissions calculations or product data, must be calibrated prior to January 1, 2012, for emissions data or January 1, 2023, for product data, using the procedures specified in this subsection when such calibration is specified in a relevant section of this chapter. Each of these flow meters must meet the applicable accuracy specification in (b) or (c) of this subsection. All other measurement devices (e.g., weighing devices) that are required by a relevant subsection of this chapter, and that are used to provide data for the GHG emissions calculations or product data, must also be calibrated prior to January 1, 2012, for emissions data or January 1, 2023, for product data; however, the accuracy specifications in (b) and (c) of this subsection do not apply to these devices. Rather, each of these measurement devices must be calibrated to meet the accuracy requirement specified for the device in the applicable subsection of this chapter, or, in the absence of such accuracy requirement, the device must be calibrated to an accuracy within the appropriate error range for the specific measurement technology, based

on an applicable operating standard including, but not limited to, manufacturer's specifications and industry standards. The procedures and methods used to quality-assure the data from each measurement device must be documented in the written monitoring plan, pursuant to subsection (6)(e)(i)(C) of this section.

(i) All flow meters and other measurement devices that are subject to the provisions of this subsection must be calibrated according to one of the following: You may use the manufacturer's recommended procedures; an appropriate industry consensus standard method; or a method specified in a relevant section of this chapter. The calibration method(s) used must be documented in the monitoring plan required under subsection (6)(e) of this section.

(ii) For reporters that become subject to this chapter after January 1, 2012, all flow meters and other measurement devices (if any) that are required by the relevant subsection(s) of this chapter to provide data for the GHG emissions calculations or product data must be installed no later than the date on which data collection is required to begin using the measurement device, and the initial calibration(s) required by this subsection (if any) must be performed no later than that date.

(iii) Except as otherwise provided in (d) through (f) of this subsection, subsequent recalibrations of the flow meters and other measurement devices subject to the requirements of this subsection must be performed at one of the following frequencies:

(A) You may use the frequency specified in each applicable subsection of this chapter.

(B) You may use the frequency recommended by the manufacturer or by an industry consensus standard practice, if no recalibration frequency is specified in an applicable subsection.

(b) Perform all flow meter calibration at measurement points that are representative of the normal operating range of the meter. Except for the orifice, nozzle, and venturi flow meters described in (c) of this subsection, calculate the calibration error at each measurement point using Equation A-2 of this subsection. The terms "R" and "A" in Equation A-2 must be expressed in consistent units of measure (e.g., gallons/minute, ft<sup>3</sup>/min). The calibration error at each measurement point must not exceed 5.0 percent of the reference value.

$$CE = \frac{|R-A|}{R} \times 100 \quad (Eq. A-2)$$

Where:

CE = Calibration error (%)

R = Reference value

A = Flow meter response to the reference value

(c) For orifice, nozzle, and venturi flow meters, the initial quality assurance consists of in situ calibration of the differential pressure (delta-P), total pressure, and temperature transmitters.

(i) Calibrate each transmitter at a zero point and at least one upscale point. Fixed reference points, such as the freezing point of water, may be used for temperature transmitter calibrations. Calculate the calibration error of each transmitter at each measurement point, using Equation A-3 of this subsection. The terms "R," "A," and "FS" in Equation A-3 of this subsection must be in consistent units of measure

(e.g., milliamperes, inches of water, psi, degrees). For each transmitter, the CE value at each measurement point must not exceed 2.0 percent of full-scale. Alternatively, the results are acceptable if the sum of the calculated CE values for the three transmitters at each calibration level (i.e., at the zero level and at each upscale level) does not exceed 6.0 percent.

$$CE = \frac{|R-A|}{FS} \times 100 \quad (Eq. A-3)$$

Where:

- CE = Calibration error (%)
- R = Reference value
- A = Transmitter response to the reference value
- FS = Full-scale value of the transmitter

(ii) In cases where there are only two transmitters (i.e., differential pressure and either temperature or total pressure) in the immediate vicinity of the flow meter's primary element (e.g., the orifice plate), or when there is only a differential pressure transmitter in close proximity to the primary element, calibration of these existing transmitters to a CE of 2.0 percent or less at each measurement point is still required, in accordance with (c)(i) of this subsection; alternatively, when two transmitters are calibrated, the results are acceptable if the sum of the CE values for the two transmitters at each calibration level does not exceed 4.0 percent. However, note that installation and calibration of an additional transmitter (or transmitters) at the flow monitor location to measure temperature or total pressure or both is not required in these cases. Instead, you may use assumed values for temperature and/or total pressure, based on measurements of these parameters at a remote location (or locations), provided that the following conditions are met:

(A) You must demonstrate that measurements at the remote location(s) can, when appropriate correction factors are applied, reliably and accurately represent the actual temperature or total pressure at the flow meter under all expected ambient conditions.

(B) You must make all temperature and/or total pressure measurements in the demonstration described in (c)(ii)(A) of this subsection with calibrated gauges, sensors, transmitters, or other appropriate measurement devices. At a minimum, calibrate each of these devices to an accuracy within the appropriate error range for the specific measurement technology, according to one of the following: You may calibrate using a manufacturer's specification or an industry consensus standard.

(C) You must document the methods used for the demonstration described in (c)(ii)(A) of this subsection in the written GHG monitoring plan under subsection (6)(e)(i)(C) of this section. You must also include the data from the demonstration, the mathematical correlation(s) between the remote readings and actual flow meter conditions derived from the data, and any supporting engineering calculations in the GHG monitoring plan. You must maintain all of this information in a format suitable for auditing and inspection.

(D) You must use the mathematical correlation(s) derived from the demonstration described in (c)(ii)(A) of this subsection to convert the remote temperature or the total pressure readings, or both, to the

actual temperature or total pressure at the flow meter, or both, on a daily basis. You must then use the actual temperature and total pressure values to correct the measured flow rates to standard conditions.

(E) You must periodically check the correlation(s) between the remote and actual readings (at least once a year), and make any necessary adjustments to the mathematical relationship(s).

(d) Fuel billing meters are exempted from the calibration requirements of this section and from the GHG monitoring plan and recordkeeping provisions of subsection (6)(e)(i)(C) and (g) of this section, provided that the fuel supplier and any unit combusting the fuel do not have any common owners and are not owned by subsidiaries or affiliates of the same company. Meters used exclusively to measure the flow rates of fuels that are used for unit startup are also exempted from the calibration requirements of this section.

(e) For a flow meter that has been previously calibrated in accordance with (a) of this subsection, an additional calibration is not required by the date specified in (a) of this subsection if, as of that date, the previous calibration is still active (i.e., the device is not yet due for recalibration because the time interval between successive calibrations has not elapsed). In this case, the deadline for the successive calibrations of the flow meter must be set according to one of the following: You may use either the manufacturer's recommended calibration schedule or you may use the industry consensus calibration schedule.

(f) For units and processes that operate continuously with infrequent outages, it may not be possible to meet the deadline established in (a) of this subsection for the initial calibration of a flow meter or other measurement device without disrupting normal process operation. In such cases, the owner or operator may postpone the initial calibration until the next scheduled maintenance outage. The best available information from company records may be used in the interim. The subsequent required recalibrations of the flow meters may be similarly postponed. Such postponements must be documented in the monitoring plan that is required under subsection (6)(e) of this section.

(g) If the results of an initial calibration or a recalibration fail to meet the required accuracy specification, data from the flow meter must be considered invalid, beginning with the hour of the failed calibration and continuing until a successful calibration is completed. You must follow the missing data provisions provided in the relevant missing data sections during the period of data invalidation.

(h) Missing data substitution procedures. Persons must comply with 40 C.F.R. Part 98 when substituting for missing data. Substitute missing data used for product data or other data required under this section that is not included in your 40 C.F.R. Part 98 report by using the best available estimate of the parameter, based on all available data.

(9) **Measurement device installation.** 40 C.F.R. § 98.3(j) and 40 C.F.R. § 98.3(d) are adopted by reference as modified in WAC 173-441-120(2).

**WAC 173-441-124 Calculation methods for electric power entities.**

This section establishes the scope of reportable energy and GHG emissions under this chapter and GHG emissions calculation methods for electric power entities. Owners and operators of electric power entities must follow the requirements of this section to determine if they are required to report under WAC 173-441-030(3). Owners and operators of electric power entities that are subject to this chapter must follow the requirements of this section when calculating emissions. If a conflict exists between a provision in WAC 173-441-010 through 173-441-110 and 173-441-140 through 173-441-170 and any applicable provision of this section, the requirements of those sections must take precedence.

(1) **General requirements.** An owner or operator of an electric power entity subject to the requirements of this chapter must report GHG emissions, including GHG emissions from biomass, from all applicable categories listed in (a) of this subsection using the methods and procedures in this section.

(a) Electric power entity categories:

(i) Electricity importers and exporters, as defined in this section;

(ii) Retail providers, including multijurisdictional retail providers, as defined in this section;

(iii) Asset controlling suppliers;

(iv) Electric generating facilities in Washington state must report using the methods specified in WAC 173-441-120.

(b) The calculation methods for voluntary reporting in WAC 173-441-120(3) apply, except calculation methods in WAC 173-441-120 (3)(b) take precedence over the methods from WAC 173-441-120 (3)(a).

(c) Alternative calculation methods approved by petition. An owner or operator may petition ecology to use calculation methods other than those specified in this section to calculate its electric power entities GHG emissions. Such alternative calculation methods must be approved by ecology prior to reporting and must meet the requirements of WAC 173-441-140.

(2) **Definitions specific to electric power entities.** The definitions in this subsection apply throughout this section unless the context clearly requires otherwise.

(a) "Centralized electricity market" means an electricity market organized and operated by a market operator and approved by the Federal Energy Regulatory Commission to provide wholesale electricity to market participants through a system of bidding and generation resource offers that are used to determine the dispatch of electricity from market participants. Examples of existing and proposed centralized electricity markets include the Energy Imbalance Market and Extended Day Ahead Market operated by the California Independent System Operator, and the Markets+ market operated by the Southwest Power Pool.

(b) "Deemed market importer" means a market participant that successfully offers electricity from a resource into a centralized electricity market and is assigned, designated, deemed, or attributed to be serving Washington electric load by the methodologies, processes, or decision algorithms that are put in place by the market operator of that centralized electricity market and approved by the department of



ecology. For the Energy Imbalance Market, the deemed market importer is the participating resource scheduling coordinator.

(c) "Direct delivery of electricity" means electricity that meets any of the following criteria: The facility has a first point of interconnection at a Washington scheduling point or within a (~~power system~~) balancing authority area located entirely in Washington; The electricity is scheduled for delivery from the specified source to a Washington scheduling point or a (~~power system~~) balancing authority area located entirely in Washington via a continuous physical transmission path from interconnection of the facility in the balancing authority in which the facility is located to the Washington scheduling point or (~~power system~~) balancing authority area located entirely in Washington; or there is an agreement to dynamically transfer electricity from the facility to a Washington scheduling point or (~~power system~~) balancing authority area located entirely in Washington; or the facility has a first point of interconnection within a centralized electricity market and electricity from that facility is attributed to Washington by the centralized electricity market.

(d) "Electricity exporter" means electric power entities that deliver exported electricity. The entity that exports electricity is identified on the e-tag as the purchasing-selling entity (PSE) on the last segment of the tag's physical path, with the point of receipt located inside Washington state and the point of delivery located outside Washington state. For electricity that is exported from a designated scheduling point in the balancing authority area of a federal power marketing administration, the exporter is the purchasing-selling entity at the first point of the physical path of the e-tag that is not the generation source.

(~~(b)~~) (e) "Electricity generating facility" means a facility that generates electricity and includes one or more generating units at the same location.

(~~(e)~~) (f) "Electricity importer" means:

(i) For electricity that is scheduled with an e-tag to a final point of delivery into a balancing authority area located entirely within Washington state, the electricity importer is identified on the e-tag as the purchasing-selling entity on the last segment of the tag's physical path with the point of receipt located outside Washington state and the point of delivery located inside Washington state;

(ii) For facilities physically located outside Washington state with the first point of interconnection to a balancing authority area located entirely within Washington state when the electricity is not scheduled on an e-tag, the electricity importer is the facility operator or owner;

(iii) For imported electricity (~~imported~~) assigned, designated, deemed, or attributed to Washington through a centralized electricity market, the electricity importer is the (~~retail provider, marketer, or asset controlling supplier that conducts an electricity transaction through the EIM that results in EIM power being delivered to final point of delivery in Washington state~~) deemed market importer;

(iv) For electricity from facilities allocated to serve retail electricity customers of a multijurisdictional electric company, the electricity importer is the multijurisdictional electric company;

(v) If the importer identified under (c)(i) of this subsection is a federal power marketing administration over which Washington state does not have jurisdiction, and the federal power marketing administration has not voluntarily elected to comply with this chapter, then the electricity importer is the next purchasing-selling entity in the

physical path on the e-tag, or if no additional purchasing-selling entity over which Washington state has jurisdiction, then the electricity importer is the electric utility that operates the Washington state transmission or distribution system, or the generation balancing authority;

(vi) For electricity that is imported into the state by a federal power marketing administration and sold to a public body or cooperative customer or direct service industrial customer located in Washington state pursuant to section 5 (b) or (d) of the Pacific Northwest Electric Power Planning and Conservation Act of 1980, P.L. 96-501, the electricity importer is the federal marketing administration;

(vii) If the importer identified under (c)(vi) of this subsection has not voluntarily elected to comply with this chapter, then the electricity importer is the public body or cooperative customer or direct service industrial customer;

(viii) For electricity that is imported into the state to a designated scheduling point inside the balancing authority area of a federal power marketing administration, the importer is the purchasing-selling entity on the e-tag at the last point on the physical path that is not the sink;

(ix) If the importer identified under (c)(vii) of this subsection is a federal power marketing administration that has not elected to voluntarily comply with this chapter, then the importer is the retail provider with which the scheduling point is associated; or

(x) For electricity from facilities allocated to a consumer-owned utility inside Washington state from a multijurisdictional consumer-owned utility, the electricity importer is the consumer-owned utility inside Washington state.

~~((d) "First jurisdictional deliverer" means the owner or operator of an electric generating facility in Washington state or an electricity importer.~~

~~(e) "Generation providing entity" or "GPE" means a facility or generating unit operator, full or partial owner, party to a contract for a fixed percentage of net generation from the facility or generating unit, party to a tolling agreement with the owner, or exclusive marketer for the facility or generating unit recognized by ecology.~~

~~(f) "Retail provider" means any of the following:~~

~~(i) An electric utility as defined in RCW 19.405.020(14);~~

~~(ii) Multijurisdictional retail providers;~~

~~(iii) Multijurisdictional consumer-owned utilities.~~

~~(g) "Imported electricity" means electricity generated outside Washington state with a final point of delivery within the state.~~

~~(i) "Imported electricity" includes electricity from an organized market, such as the energy imbalance market.~~

~~(ii) "Imported electricity" includes imports from linked jurisdictions, but such imports shall be construed as having no emissions.~~

~~(iii) Electricity from a system that is marketed by a federal power marketing administration shall be construed as "imported electricity," not electricity generated in Washington state.~~

~~(iv) "Imported electricity" does not include electricity imports of unspecified electricity that are netted by exports of unspecified electricity to any jurisdiction not covered by a linked program by the same entity within the same hour.~~

~~(v) For a multijurisdictional electric company, "imported electricity" means electricity, other than from in-state facilities, that contributes to a common system power pool. Where a multijurisdictional electric company has a cost allocation methodology approved by the~~

Washington state utilities and transportation commission, the allocation of specific facilities to Washington state's retail load will be in accordance with that methodology.

~~(vi) For a multijurisdictional consumer-owned utility, "imported electricity" includes electricity from facilities that contribute to a common system power pool that are allocated to a consumer-owned utility inside Washington state pursuant to a methodology approved by the governing board of the consumer-owned utility.~~

~~(h) "Multijurisdictional consumer-owned utility" means an electric generation and transmission cooperative owned by a collection of consumer-owned utilities in multiple states or a consumer-owned utility that provides electricity to member owners in Washington state and in one or more other states in a contiguous service territory or from a common power system.~~

~~(i) "Multijurisdictional electric company" means an investor-owned utility that provides electricity to customers in Washington state and in one or more other states in a contiguous service territory or from a common power system.~~

~~(j) "Multijurisdictional retail provider" means a:~~

~~(i) Multijurisdictional electric company; or~~

~~(ii) Multijurisdictional consumer-owned utility.~~

~~(k)) (g) "Electricity transaction" means the purchase, sale, import, export, or exchange of electric power. An electricity transaction also includes the successful offer of energy from a resource located in Washington to a centralized electricity market or from a resource located outside Washington that is attributed to Washington by the centralized electricity market, and the purchase of energy by a Washington utility from a centralized electricity market.~~

~~(h) "Energy Imbalance Market" or "EIM" means the Western Energy Imbalance Market operated by the California Independent System Operator.~~

~~(i) "E-tag" means an energy tag representing transactions on the North American bulk electricity market scheduled to flow between or across balancing authority areas and to and from locations listed in an affiliated registry, as represented in a manner and form created by the North American Electric Reliability Corporation and as maintained by the North American Energy Standards Board or a successor organization.~~

~~((l) "Point of delivery" means a point on the electricity transmission or distribution system where a deliverer makes electricity available to a receiver, or available to serve load. This point may be an interconnection with another system or a substation where the transmission provider's transmission and distribution systems are connected to another system, or a distribution substation where electricity is imported into the state over a multijurisdictional retail provider's distribution system.~~

~~(m) "Specified source of electricity" or "specified source" means a facility, unit, or asset controlling supplier that is permitted to be claimed as the source of electricity delivered. The reporting entity must have either full or partial ownership in the facility or a written power contract to procure electricity generated by that facility or unit or from an asset controlling supplier at the time of entry into the transaction to procure electricity.~~

~~(n) "Unspecified source of electricity" or "unspecified source" means a source of electricity that is not a specified source at the time of entry into the transaction to procure electricity.~~

~~(o) "Electricity exporter" means electric power entities that deliver exported electricity. The entity that exports electricity is identified on the e-tag as the purchasing-selling entity (PSE) on the last segment of the tag's physical path, with the point of receipt located inside Washington state and the point of delivery located outside Washington state. For electricity that is exported from a designated scheduling point in the balancing authority area of a federal power marketing administration, the exporter is the purchasing-selling entity at the first point of the physical path of the e-tag that is not the generation source.~~

~~(p) "Electricity transaction" means the purchase, sale, import, export or exchange of electric power.~~

~~(q) "Energy imbalance market" or "EIM" means the western energy imbalance market operated by the California independent system operator.~~

~~(r))~~ (j) "Exported electricity" means electricity generated inside Washington state and delivered to serve load located outside Washington state. This includes electricity delivered from a first point of receipt inside Washington state, to the first point of delivery outside Washington state, with a final point of delivery outside Washington state. Exported electricity delivered across balancing authority areas ~~((is))~~ may be documented on e-tags with the first point of receipt located inside Washington state and the final point of delivery located outside Washington state. Exported electricity does not include electricity generated inside Washington state then transmitted outside of Washington state, but with a final point of delivery inside Washington state. Exported electricity does not include electricity generated inside Washington state that is allocated to serve Washington state retail customers of a multijurisdictional retail provider, consistent with a cost allocation methodology approved by the Washington state utilities and transportation commission and the utility regulatory commission of at least one additional state in which the multijurisdictional retail provider provides retail electric service.

~~((s))~~ (k) "Extended day ahead market" means the extended day ahead market operated by the California Independent System Operator.

(l) "Final point of delivery" means the sink specified on the e-tag, where defined points have been established through the affiliated registry. When e-tags are not used to document electricity deliveries, as may be the case within a balancing authority, the final point of delivery is the location of the load. Exported electricity is disaggregated by the final point of delivery ~~((on the e-tag))~~.

~~((t))~~ (m) "First point of delivery in Washington" means the first defined point on the transmission system located inside Washington state at which imported electricity may be measured, consistent with defined points that have been established through the affiliated registry.

~~((u))~~ (n) "First point of receipt" means the generation source specified on the e-tag, where defined points have been established through the affiliated registry. When e-tags are not used to document electricity deliveries, as may be the case within a balancing authority, the first point of receipt is the location of the individual generating facility or unit, or group of generating facilities or units.

~~((v))~~ (o) "Generation providing entity" or "GPE" means a facility or generating unit operator, full or partial owner, party to a contract for a fixed percentage of net generation from the facility or generating unit, party to a tolling agreement with the owner, or ex-

clusive marketer for the facility or generating unit recognized by ecology.

(p) "Grid" or "electric power grid" means a system of synchronized power providers and consumers connected by transmission and distribution lines and operated by one or more control centers.

((+w)) (q) "Imported electricity" means electricity generated outside Washington state with a final point of delivery within the state.

(i) "Imported electricity" includes electricity transferred into or attributed to Washington by a centralized electricity market but does not include electricity imported into Washington by a market operator to obtain or provide emergency assistance under applicable emergency preparedness and operations reliability standards of the North American Electric Reliability Corporation or Western Electricity Coordinating Council.

(ii) "Imported electricity" includes imports from linked jurisdictions, but such imports shall be construed as having no emissions.

(iii) Electricity from a system that is marketed by a federal power marketing administration shall be construed as "imported electricity," not electricity generated in Washington state.

(iv) "Imported electricity" does not include electricity imports of unspecified electricity that are netted by exports of unspecified electricity to any jurisdiction not covered by a linked program by the same entity within the same hour.

(v) For a multijurisdictional electric company, "imported electricity" means electricity, other than from in-state facilities, that contributes to a common system power pool. Where a multijurisdictional electric company has a cost allocation methodology approved by the Washington state utilities and transportation commission, the allocation of specific facilities to Washington state's retail load will be in accordance with that methodology.

(vi) For a multijurisdictional consumer-owned utility, "imported electricity" includes electricity from facilities that contribute to a common system power pool that are allocated to a consumer-owned utility inside Washington state pursuant to a methodology approved by the governing board of the consumer-owned utility.

(r) "Last point of delivery in Washington" means the last defined point on the transmission system located inside Washington state at which exported electricity may be measured, consistent with defined points that have been established through the North American Energy Standards Board Electric Industry Registry.

((+x)) (s) "Marketer" means a purchasing-selling entity that delivers electricity and is not a retail provider.

((+y)) (t) "Market operator" means the legal entity that operates and maintains a centralized electricity market.

(u) "Market participant" means an electric power entity that has an agreement with a centralized electricity market operator and participates in that centralized electricity market in accordance with the rules and procedures of that market, as well as with an approved tariff that governs the operations of the centralized electricity market.

(v) "Markets plus" or "Markets+" means the Markets+ centralized day ahead electricity market designed by the Southwest Power Pool.

(w) "Multijurisdictional consumer-owned utility" means an electric generation and transmission cooperative owned by a collection of consumer-owned utilities in multiple states or a consumer-owned utility that provides electricity to member owners in Washington state and

in one or more other states in a contiguous service territory or from a common power system.

(x) "Multijurisdictional electric company" means an investor-owned utility that provides electricity to customers in Washington state and in one or more other states in a contiguous service territory or from a common power system.

(y) "Multijurisdictional retail provider" means a:

(i) Multijurisdictional electric company; or

(ii) Multijurisdictional consumer-owned utility.

(z) "Point of delivery" means a point on the electricity transmission or distribution system where a deliverer makes electricity available to a receiver, or available to serve load. This point may be an interconnection with another system or a substation where the transmission provider's transmission and distribution systems are connected to another system, or a distribution substation where electricity is imported into the state over a multijurisdictional retail provider's distribution system.

(aa) "Point of receipt" or "POR" means the point on an electricity transmission or distribution system where an electricity receiver receives electricity from a deliverer. This point can be an interconnection with another system or a substation where the transmission provider's transmission and distribution systems are connected to another system.

~~((z))~~ (bb) "Power" means electricity, except where the context makes clear that another meaning is intended.

~~((aa))~~ (cc) "Power contract" or "written power contract," as used for the purposes of documenting specified versus unspecified sources of imported and exported electricity, means a written document, including associated verbal or electronic records if included as part of the written power contract, arranging for the sale or procurement of electricity. Power contracts may be, but are not limited to, power purchase agreements, enabling agreements, electricity transactions, and tariff provisions, without regard to duration, or written agreements to import or export on behalf of another entity, as long as that other entity also reports to ecology the same imported or exported electricity. A power contract for a specified source is a contract that is contingent upon delivery of power from a particular facility, unit, or asset-controlling supplier's system that is designated at the time the transaction is executed.

~~((bb))~~ (dd) "Purchasing-selling entity" or "PSE" means the entity that is identified on an e-tag for each physical path segment.

~~((ee))~~ (ee) "Retail end use customer" or "retail end user" means a residential, commercial, agricultural, or industrial electric customer who buys electricity to be consumed as a final product and not for resale.

~~((dd))~~ (ff) "Retail provider" means any of the following:

(i) An electric utility as defined in RCW 19.405.020(14);

(ii) Multijurisdictional retail providers;

(iii) Multijurisdictional consumer-owned utilities.

(gg) "Retail sales" means electricity sold to retail end users.

~~((ee))~~ (hh) "Specified source of electricity" or "specified source" means a facility, unit, or asset controlling supplier that is permitted to be claimed as the source of electricity delivered. The reporting entity must have either full or partial ownership in the facility or a written power contract to procure electricity generated by that facility or unit or from an asset controlling supplier at the time of entry into the transaction to procure electricity. For elec-

tricity from a resource dispatched by a centralized electricity market, the reporting entity must indicate in the offer of the electricity to the market that the electricity is available to serve load in Washington. Electricity reported as specified source must be contracted to a Washington retail provider or must be surplus electricity, as determined by methodologies approved by ecology.

(ii) "Sink" or "sink to load" or "load sink" means the sink identified on the physical path of e-tags, where defined points have been established through the affiliated registry. Exported electricity is disaggregated by the sink on the e-tag, also referred to as the final point of delivery on the e-tag.

((+ff)) (jj) "Source of generation" or "generation source" means the generation source identified on the physical path of e-tags, where defined points have been established through the affiliated registry. Imported electricity and wheels are disaggregated by the source on the e-tag, also referred to as the first point of receipt.

((+gg)) (kk) "Surplus electricity" means an amount of electricity generated by a resource in excess of the resource's existing obligations to provide electricity to purchasing entities.

(ll) "Tolling agreement" means an agreement whereby a party rents a power plant from the owner. The rent is generally in the form of a fixed monthly payment plus a charge for every megawatt generated, generally referred to as a variable payment.

(mm) "Unspecified source of electricity" or "unspecified source" means a source of electricity that is not a specified source at the time of entry into the transaction to sell or procure the electricity.

**(3) Data requirements and calculation methods.** The electric power entity who is required to report under WAC 173-441-030(3) of this chapter must comply with the following requirements.

(a) General requirements and content for GHG emissions data reports for electricity importers and exporters.

(i) Greenhouse gas emissions. The electric power entity must report GHG emissions separately for each category of delivered electricity required, in metric tons of CO<sub>2</sub> equivalent (MT of CO<sub>2</sub>e), with biogenic CO<sub>2</sub> reported separately, according to the calculation methods in this section.

(ii) Delivered electricity. The electric power entity must report imported and exported electricity in MWh disaggregated by first point of receipt (POR) or final point of delivery, as applicable, and must also separately report imported and exported electricity from unspecified sources ((and the energy imbalance market)), from centralized electricity markets, and from each specified source. Where applicable, first points of receipt and final points of delivery (POD) must be reported using the standardized code used in e-tags, as well as the full name of the POR/POD.

(iii) Imported electricity from unspecified sources. When reporting imported electricity delivered from unspecified sources, the electric power entity must report for each first point of receipt the following information:

(A) Whether the first point of receipt is located in a linked jurisdiction published on the ecology website;

(B) The amount of electricity from unspecified sources as measured at the first point of delivery in Washington state;

(C) The amount of electricity imports of unspecified electricity that are netted by exports of unspecified electricity to any jurisdic-

tion not covered by a linked program by the same entity within the same hour.

(D) The net amount of imported unspecified electricity after taking into account the requirements in (a)(iii)(C) of this subsection.

(E) GHG emissions, including those associated with transmission losses, as required in this section.

~~((F) When the unspecified power was obtained from the energy imbalance market.))~~

(iv) Delivered electricity from specified facilities or units. The electric power entity must report all direct delivery of electricity as from a specified source for facilities or units in which they are a generation providing entity (GPE) or have a written power contract to procure electricity. An electric power entity must report imported electricity as from a specified source when the electricity power entity is a GPE of that facility. When reporting imported electricity from specified facilities or units, the electric power entity must disaggregate electricity deliveries and associated GHG emissions by facility or unit and by first point of receipt, as applicable. The reporting entity must also report total GHG emissions and MWh from specified sources and the sum of emissions from specified sources explicitly listed as not covered in chapter 70A.65 RCW, as described in chapter 173-446 WAC. Seller Warranty: The sale or resale of specified source electricity is permitted among entities on the e-tag market path insofar as each sale or resale is for specified source electricity in which sellers have purchased and sold specified source electricity, such that each seller warrants the sale of specified source electricity from the source through the market path. Claims of specified sources of imported electricity, must include the following information:

(A) Measured at busbar. The amount of imported electricity from specified facilities or units as measured at the busbar; and

(B) Not measured at busbar. If the amount of imported electricity deliveries from specified facilities or units as measured at the busbar is not provided, report the amount of imported electricity as measured at the first point of delivery in Washington state, including estimated transmission losses as required in this section and the reason why measurement at the busbar is not known.

(v) Imported electricity from ~~((the energy imbalance))~~ a centralized electricity market. ((The reporting entity must separately report power obtained from the energy imbalance market.))

(A) For the Energy Imbalance Market only, and for emissions reporting years 2023 through 2026 only, the retail provider located or operating in Washington that receives a delivery of electricity facilitated through the Energy Imbalance Market as defined in (c)(iv) of this subsection is the electricity importer for that electricity for the purposes of this section. In the event that the market operator is able to identify deemed market importers that successfully offer energy that is attributed to Washington before 2026, those identified entities are the deemed market importers beginning in the following calendar year.

(B) Each deemed market importer must separately report all electricity assigned, designated, deemed, or attributed to Washington by an originating centralized electricity market, in a manner designated by ecology.

(C) Each deemed market importer must calculate, report, and cause to be verified on an annual basis the greenhouse gas emissions associ-



ated with the electricity which the entity offered that has been designated, deemed, or attributed to Washington.

(vi) Imported electricity supplied by asset-controlling suppliers. The reporting entity must separately report imported electricity supplied by asset-controlling suppliers recognized by ecology. The reporting entity must:

(A) Report the asset-controlling supplier standardized purchasing-selling entity (PSE) acronym or code, full name, and the ecology identification number;

(B) Report asset-controlling supplier power that was not acquired as specified power, as unspecified power;

(C) Report delivered electricity from asset-controlling suppliers as measured at the first point of delivery in Washington state; and

(D) Report GHG emissions calculated pursuant to this section, including transmission losses.

(E) To claim power from an asset-controlling supplier, the asset-controlling supplier must be identified in one of the following means:

(I) On the physical path of the e-tag as the PSE at the first point of receipt, or in the case of asset-controlling suppliers that are exclusive marketers, as the PSE immediately following the associated generation owner; or

(II) If there is no e-tag associated with the imported electricity, on a long-term contract that identifies the ACS as the relevant provider of that electricity.

(vii) Exported electricity. The electric power entity must report exported electricity in MWh and associated GHG emissions in MT of CO<sub>2</sub>e for unspecified sources disaggregated by each final point of delivery outside Washington state, and for each specified source disaggregated by each final point of delivery outside Washington state (~~, as well as~~). For electricity dispatched by a centralized electricity market, the electric power entity must report any specified electricity sales attributed to market participants outside Washington or exported from the market to an entity outside Washington in MWh and associated GHG emissions in MT of CO<sub>2</sub>e for unspecified sources and for each specified source disaggregated by recipient, to the extent this information is available from the centralized electricity market operator. The electric power entity must also report the following information:

(A) Exported electricity as measured at the last point of delivery located in Washington state, if known. If unknown, report as measured at the final point of delivery outside Washington state.

(B) Do not report estimated transmission losses.

(C) Report whether the final point of delivery is located in a linked jurisdiction published on the ecology website.

(D) Report GHG emissions calculated pursuant to this section.

(viii) Exchange agreements. The electric power entity must report delivered electricity under power exchange agreements consistent with imported and exported electricity requirements of this section. Electricity delivered into Washington state under exchange agreements must be reported as imported electricity and electricity delivered out of Washington state under exchange agreements must be reported as exported electricity.

(ix) Verification documentation. The electric power entity must retain for purposes of verification documentation of e-tags, written power contracts, settlements data, and any other reports provided by the market operator to the electric power entity regarding electricity attributed to Washington for which that entity is the deemed market

importer, and all other information required to confirm reported electricity procurements and deliveries pursuant to the recordkeeping requirements of WAC 173-441-050.

(x) Electricity generating units and cogeneration units in Washington state. Electric power entities that also operate electricity generating units or cogeneration units located inside Washington state that meet the applicability requirements of WAC 173-441-030(1) must report GHG emissions to ecology under WAC 173-441-120.

(xi) Electricity generating units and cogeneration units outside Washington state. Operators and owners of electricity generating units and cogeneration units located outside Washington state who elect to report to ecology under WAC 173-441-030(5) must fully comply with the reporting and verification requirements of this chapter.

(b) Calculating GHG emissions.

(i) Calculating GHG emissions from unspecified sources. For electricity from unspecified sources, the electric power entity must calculate the annual CO<sub>2</sub> equivalent mass emissions using the ~~((method established in WAC 173-444-040(4) and based on the amount of net imported electricity reported consistent with (a)(iii)(D) of this subsection.))~~ following equation:

$$\text{CO}_2\text{e} \equiv \text{MWh} \times \text{TL} \times \text{EF}_{\text{unsp}} \quad (\text{Eq. 124-1})$$

Where:

CO<sub>2</sub>e ≡ Annual CO<sub>2</sub> equivalent mass emissions from the unspecified electricity deliveries at each point of receipt identified (MT of CO<sub>2</sub>e).

MWh ≡ Megawatt-hours of unspecified electricity deliveries at each point of receipt identified.

EF<sub>unsp</sub> ≡ Default emission factor for unspecified electricity imports.

EF<sub>unsp</sub> ≡ 0.428 MT of CO<sub>2</sub>e/MWh.

TL ≡ Transmission loss correction factor.

TL ≡ TL = 1.02 to account for transmission losses between the busbar and measurement at the first point of receipt in Washington.

(ii) Calculating GHG emissions from specified facilities or units. For electricity from specified facilities or units, including electricity that is deemed, designated, assigned, or attributed by a centralized electricity market, the electric power entity must calculate emissions using the following equation:

$$\text{CO}_2\text{e} = \text{MWh} \times \text{TL} \times \text{EF}_{\text{sp}} \quad (\text{Eq. } \cancel{(124-1)} \text{ 124-2})$$

Where:

CO<sub>2</sub>e = Annual CO<sub>2</sub> equivalent mass emissions from the specified electricity deliveries from each facility or unit claimed (MT of CO<sub>2</sub>e).

MWh = Megawatt-hours of specified electricity deliveries from each facility or unit claimed.

- EF<sub>sp</sub> = Facility-specific or unit-specific emission factor published on the ecology website and calculated using total emissions and transactions data as described below. The emission factor is based on data from the year prior to the reporting year.
- TL = Transmission loss correction factor.
- TL = 1.02 to account for transmission losses associated with generation outside of a Washington state balancing authority, including electricity from a centralized electricity market that does not account for losses in attribution of energy to Washington.
- TL = 1.0 if the reporting entity provides documentation that demonstrates to the satisfaction of a verifier and ecology that transmission losses have been accounted for, or are compensated by using electricity sourced from within Washington state, or for electricity from a centralized electricity market that accounts for a two percent transmission loss factor in the attribution of energy to Washington.

(A) Ecology shall calculate facility-specific or unit-specific emission factors and publish them on the ecology website using the following equation:

$$EF_{sp} = E_{sp}/EG \quad (\text{Eq. ((124-2)) 124-3})$$

Where:

- E<sub>sp</sub> = CO<sub>2</sub>e emissions for a specified facility or unit for the report year (MT of CO<sub>2</sub>e).
- EG = Net generation from a specified facility or unit for the report year shall be based on data reported to the Energy Information Administration (EIA).

(B) To register a specified unit(s) source of power, the reporting entity must provide to ecology unit level GHG emissions consistent with the data source requirements of this section and net generation data as reported to the EIA, along with contracts for delivery of power from the specified unit(s) to the reporting entity, and proof of direct delivery of the power by the reporting entity as an import to Washington state.

(I) For specified facilities or units whose operators are subject to this chapter or whose owners or operators voluntarily report under this chapter, E<sub>sp</sub> shall be equal to the sum of CO<sub>2</sub>e emissions reported pursuant to this section.

(II) For specified facilities or units whose operators are not subject to reporting under this chapter or whose owners or operators do not voluntarily report under this chapter, but are subject to the U.S. EPA GHG Mandatory Reporting Regulation, E<sub>sp</sub> shall be based on GHG emissions reported to U.S. EPA pursuant to 40 C.F.R. Part 98. For GHG emissions reported to U.S. EPA pursuant to 40 C.F.R. Part 98, if it is not possible to isolate the emissions that are directly related to electricity production, ecology may calculate E<sub>sp</sub> based on EIA data.

Emissions from combustion of biomass-derived fuels will be based on EIA data until such time the emissions are reported to U.S. EPA.

(III) For specified facilities or units whose operators are not subject to reporting under this chapter or whose owners or operators do not voluntarily report under this chapter, nor are subject to the U.S. EPA GHG Mandatory Reporting Regulation, Esp is calculated using heat of combustion data reported to the Energy Information Administration (EIA) as shown below.

$$\text{Esp} = 0.001 \times \Sigma(Q \times \text{EF}) \quad (\text{Eq. } ((124-3)) \underline{124-4})$$

Where:

- 0.001 = Conversion factor kg to MT
- Q = Heat of combustion for each specified fuel type from the specified facility or unit for the report year (MMBtu). For cogeneration, Q is the quantity of fuel allocated to electricity generation consistent with EIA reporting. For geothermal electricity, Q is the steam data reported to EIA (MMBtu).
- EF = CO<sub>2</sub>e emission factor for the specified fuel type as required by this chapter (kg CO<sub>2</sub>e/MMBtu). For geothermal electricity, EF is the estimated CO<sub>2</sub> emission factor published by EIA.

(IV) Facilities or units will be assigned an emission factor by the ecology based on the type of fuel combusted or the technology used when a U.S. EPA GHG Report or EIA fuel consumption report is not available, including new facilities and facilities located outside the U.S.

(V) Meter data requirement. For verification purposes, electric power entities shall retain meter generation data to document that the power claimed by the reporting entity was generated by the facility or unit at the time the power was directly delivered.

(VI) A lesser of analysis is applicable to imports from specified sources for which ecology has calculated an emission factor of zero, and for imports from Washington renewable portfolio standard (RPS) eligible resources, excluding the following: Dynamically tagged power deliveries; nuclear power; asset controlling supplier power; and imports from hydroelectric facilities for which an entity's share of metered output on an hourly basis is not established by power contract. A lesser of analysis is required pursuant to the following equation:

$$\text{Sum of Lesser of MWh} = \Sigma \text{HMsp min (MGsp} \times \text{Ssp, TGsp)} \quad (\text{Eq. } ((124-4)) \underline{124-5})$$

Where:

- ΣHMsp = Sum of the Hourly Minimum of MGsp and TGsp (MWh).
- MGsp = Metered facility or unit net generation (MWh).
- Ssp = Entity's share of metered output, if applicable.
- TGsp = Tagged or transmitted energy at the transmission or subtransmission level imported to Washington (MWh).

(iii) Calculating GHG emissions of imported electricity supplied by asset-controlling suppliers. Based on annual reports submitted to

ecology pursuant to WAC 173-441-070(3), ecology will calculate and publish on the ecology website the system emission factor for all asset-controlling suppliers recognized by the ecology. The reporting entity must calculate emissions for electricity supplied using the following equation:

$$\text{CO}_2\text{e} = \text{MWh} \times \text{TL} \times \text{EF}_{\text{acs}} \quad (\text{Eq. } ((124-5)) \text{ } \underline{124-6})$$

Where:

$\text{CO}_2$  = Annual  $\text{CO}_2$  equivalent mass emissions from the specified electricity deliveries from ecology-recognized asset-controlling suppliers (MT of  $\text{CO}_2\text{e}$ ).

MWh = Megawatt-hours of specified electricity deliveries.

$\text{EF}_{\text{ACS}}$  = Asset-Controlling Supplier system emission factor published on the ecology website (MT  $\text{CO}_2\text{e}/\text{MWh}$ ). Ecology will assign the system emission factors for all asset-controlling suppliers based on a previously verified GHG report submitted to ecology pursuant to WAC 173-441-070(3). The supplier-specific system emission factor is calculated annually by ecology. The calculation is derived from data contained in annual reports submitted that have received a positive or qualified positive verification statement. The emission factor is based on data from two years prior to the reporting year.

TL = Transmission loss correction factor.

TL = 1.02 when deliveries are not reported as measured at a first point of receipt located within the balancing authority area of the asset-controlling supplier.

TL = 1.0 when deliveries are reported as measured at a first point of receipt located within the balancing authority area of the asset-controlling supplier.

Ecology must calculate the system emission factor for asset-controlling suppliers using the following equations:

$$\text{EF}_{\text{ACS}} = \text{Sum of System Emissions MT of } \text{CO}_2\text{e} / \text{Sum of System MWh} \quad (\text{Eq. } ((124-6)) \text{ } \underline{124-7})$$

$$\text{Sum of System Emissions, MT of } \text{CO}_2\text{e} = \Sigma \text{E}_{\text{asp}} + \Sigma (\text{PE}_{\text{esp}} * \text{EF}_{\text{sp}}) + \Sigma (\text{PE}_{\text{unsp}} * \text{EF}_{\text{unsp}}) - \Sigma (\text{SE}_{\text{sp}} * \text{EF}_{\text{sp}}) \quad (\text{Eq. } ((124-7)) \text{ } \underline{124-8})$$

$$\text{Sum of System MWh} = \Sigma \text{E}_{\text{Gas}} + \Sigma \text{PE}_{\text{sp}} + \Sigma \text{PE}_{\text{unsp}} - \Sigma \text{SE}_{\text{sp}} \quad (\text{Eq. } ((124-8)) \text{ } \underline{124-9})$$

Where:

- ΣEasp = Emissions from owned facilities. Sum of CO<sub>2</sub>e emissions from each specified facility/unit in the asset-controlling supplier's fleet (MT of CO<sub>2</sub>e).
- ΣEGasp = Net generation from owned facilities. Sum of net generation for each specified facility/unit in the asset-controlling supplier's fleet for the data year as reported to ecology under this chapter (MWh).
- PEsp = Electricity purchased from specified sources. Amount of electricity purchased wholesale and taken from specified sources by the asset-controlling supplier for the data year as reported to ecology under this chapter (MWh).
- PEunsp = Electricity purchased from unspecified sources. Amount of electricity purchased wholesale from unspecified sources by the asset-controlling supplier for the data year as reported to ecology under this chapter (MWh).
- SEsp = Electricity sold from specified sources. Amount of wholesale electricity sold from specified sources by the asset-controlling supplier for the data year as reported to ecology under this chapter (MWh).
- EFsp = CO<sub>2</sub>e emission factor as defined for each specified facility or unit calculated consistent with (b)(ii) of this subsection (MT CO<sub>2</sub>e/MWh).
- EFunsp = Default emission factor for unspecified sources calculated consistent with (b)(i) of this subsection (MT CO<sub>2</sub>e/MWh).

(iv) Calculating GHG emissions of imported electricity for multi-jurisdictional retail providers. Multijurisdictional retail providers must include emissions and megawatt-hours in the terms below from facilities or units that contribute to a common system power pool. Multijurisdictional retail providers do not include emissions or megawatt-hours in the terms below from facilities or units allocated to serve retail loads in designated states pursuant to a cost allocation methodology approved by the Washington state utilities and transportation commission and the utility regulatory commission of at least one additional state in which the multijurisdictional retail provider provides retail electric service. For multijurisdictional consumer-owned utilities, the cost allocation methodology must be approved by its governing board. Multijurisdictional retail providers must calculate emissions that have a compliance obligation using the following equation:

$$\text{CO}_2\text{e} = (\text{MWhR} \times \text{TLR} - \text{MWhWSP-WA} - \text{EGWA}) \times \text{EFMJRP-notWA} + \text{MWhSP-notWA} \times \text{TLWSP} \times \text{EFunsp} - \text{CO}_2\text{e} \quad \text{(Eq. (124-9))}$$

linked 124-10

Where:

$$\text{CO}_2\text{e} = \text{Annual CO}_2\text{e mass emissions of imported electricity (MT of CO}_2\text{e).}$$

MWhR	=	Total electricity procured by multijurisdictional retail provider to serve its retail customers in Washington, reported as retail sales for Washington state service territory, MWh.
MWhWSP-WA	=	Wholesale electricity procured in Washington state by multijurisdictional retail provider to serve its retail customers in Washington state, as determined by the first point of receipt on a e-tag and pursuant to a cost allocation methodology approved by the Washington state utilities and transportation commission (UTC) and the utility regulatory commission of at least one additional state in which the multijurisdictional retail provider provides retail electric service, MWh. For multijurisdictional consumer-owned utilities, the cost allocation methodology must be approved by its governing board.
MWhWSP-not WA	=	Wholesale electricity imported into Washington state by multijurisdictional retail provider with a final point of delivery in Washington state and not used to serve its Washington state retail customers, MWh.
EFMJRP-not WA	=	Multijurisdictional retail provider system emission factor for out-of-state generation calculated by ecology and consistent with a cost allocation methodology approved by the Washington state utilities and transportation commission and the utility regulatory commission of at least one additional state in which the multijurisdictional retail provider provides retail electric service. For multijurisdictional consumer-owned utilities, the cost allocation methodology must be approved by its governing board.
EFunsp	=	Default emission factor for unspecified sources calculated consistent with this section (MT CO <sub>2</sub> e/MWh).
EGWA	=	Net generation measured at the busbar of facilities and units located in Washington state that are allocated to serve its retail customers in Washington state pursuant to a cost allocation methodology approved by the Washington state utilities and transportation commission and the utility regulatory commission of at least one additional state in which the multijurisdictional retail provider provides retail electric service, MWh. For multijurisdictional consumer-owned utilities, the cost allocation methodology must be approved by its governing board.
TL	=	Transmission loss correction factor.
TL WSP	=	1.02 for transmission losses applied to wholesale power.
TL R	=	Estimate of transmission losses from busbar to end user reported by multijurisdictional retail provider.
CO <sub>2</sub> e linked	=	Annual CO <sub>2</sub> e mass emissions recognized by ecology pursuant to linkage under chapter 70A.65 RCW, as described in chapter 173-446 WAC (MT of CO <sub>2</sub> e).

(c) Additional requirements for retail providers, excluding multijurisdictional retail providers. Retail providers must include the following information in the GHG emissions data report for each report year, in addition to the information identified in (a) (i), (ii), and (vii) of this subsection.

(i) Retail providers must report Washington state retail sales. A retail provider who is required only to report retail sales may choose not to apply the verification requirements specified in WAC 173-441-085, if the retail provider deems the emissions data report nonconfidential.

(ii) Retail providers may elect to report the subset of retail sales attributed to the electrification of shipping ports, truck stops, and motor vehicles if metering is available to separately track these sales from other retail sales.

~~((d))~~ (iii) Retail providers that report as electricity importers or exporters also must separately report electricity imported from specified and unspecified sources by other electric power entities to serve their load, designating the electricity importer. In addition, all imported electricity transactions documented by e-tags where the retail provider is the PSE at the sink must be reported.

~~((e))~~ (iv) Retail providers must report net purchases of electricity from centralized electricity markets, based on annual totals of electricity purchased in MWh from each separate centralized electricity market.

(d) Additional requirements for multijurisdictional retail providers. Multijurisdictional retail providers that provide electricity into Washington state at the distribution level must include the following information in the GHG emissions data report for each report year, in addition to the information identified elsewhere in this section.

(i) A report of the electricity transactions and GHG emissions associated with the common power system or contiguous service territory that includes consumers in Washington state. This includes the requirements in this section as applicable for each generating facility or unit in the multijurisdictional retail provider's fleet;

(ii) The multijurisdictional retail provider must include in its emissions data report wholesale power purchased and taken (MWh) from specified and unspecified sources and wholesale power sold from specified sources according to the specifications in this section, and as required for ecology to calculate a supplier-specific emission factor;

(iii) Total retail sales (MWh) by the multijurisdictional retail provider in the contiguous service territory or power system that includes consumers in Washington state;

(iv) Retail sales (MWh) to Washington state customers served in Washington state's portion of the service territory;

(v) Retail sales derived from ~~((the energy imbalance))~~ each centralized electricity market;

(vi) GHG emissions associated with the imported electricity, including both Washington state retail sales and wholesale power imported into Washington state from the retail provider's system, according to the specifications in this section;

(vii) Multijurisdictional retail providers that serve Washington state load must claim as specified power all power purchased or taken from facilities or units in which they have operational control or an ownership share or written power contract;

(viii) Multijurisdictional retail providers that serve Washington state load may elect to exclude information listed in this section when registering claims to specified power from facilities located outside Washington state and participating in the Federal Energy Regulatory Commission's PURPA Qualifying Facility program.

~~((f))~~ (e) Additional requirements for asset-controlling suppliers. Owners or operators of electricity generating facilities or exclusive marketers for certain generating facilities may apply for an asset-controlling supplier designation from ecology. Approved asset-controlling suppliers may request that ecology calculate or adopt a supplier-specific emission factor pursuant to this section. To apply for asset-controlling supplier designation, the applicant must:



(i) Meet the requirements in this chapter, including reporting pursuant as applicable for each generating facility or unit in the supplier's fleet;

(ii) Include in its emissions data report wholesale power purchased and taken (MWh) from specified and unspecified sources and wholesale power sold from specified sources according to the specifications in this section, and as required for ecology to calculate a supplier-specific emission factor;

(iii) Retain for verification purposes documentation that the power sold by the supplier originated from the supplier's fleet of facilities and either that the fleet is under the supplier's operational control or that the supplier serves as the fleet's exclusive marketer;

(iv) Provide the supplier-specific ecology identification number to electric power entities who purchase electricity from the supplier's system.

(v) To apply for and maintain asset-controlling supplier status, the entity shall submit as part of its emissions data report the following information, annually:

(A) General business information, including entity name and contact information;

(B) List of officer names and titles;

(C) Data requirements as prescribed by ecology;

(D) A list and description of electricity generating facilities for which the reporting entity is a ~~((first jurisdiction deliverer))~~ deemed market importer; and

(E) An attestation, in writing and signed by an authorized officer of the applicant, as follows:

(I) "I certify under penalty of perjury under the laws of the State of Washington that I am duly authorized by (name of entity) to sign this attestation on behalf of (name of entity), that (name of entity) meets the definition of an asset-controlling supplier as specified in this section and that the information submitted herein is true, accurate, and complete."

(II) Asset-controlling suppliers must annually adhere to all reporting and verification requirements of this chapter, or be removed from asset-controlling supplier designation. Asset-controlling suppliers will also lose their designation if they receive an adverse verification statement, but may reapply in the following year for redesignation.

~~((g))~~ (f) Requirements for claims of specified sources of electricity. Each reporting entity claiming specified facilities or units for imported or exported electricity, including deemed market importers, must register its anticipated specified sources with ecology as part of their greenhouse gas report to obtain associated emission factors calculated by ecology for use in the emissions data report required to be submitted by the report submission due date in WAC 173-441-050 (2)(a). If an operator fails to register a specified source by ~~((the registration due date in WAC 173-441-060(4))~~ February 1st for sources used the previous year, the operator must use the emission factor provided by ecology for a specified facility or unit in the emissions data report required to be submitted by the report submission due date in WAC 173-441-050 (2)(a). Each reporting entity claiming specified facilities or units for imported or exported electricity must also meet requirements in the emissions data report.

(i) Registration information for specified sources. The following information is required:

- (A) The facility names and, for specification to the unit level, the facility and unit names.
- (B) For sources with a previously assigned ecology identification number, the ecology facility or unit identification number or supplier number published on ecology's website. For newly specified sources, ecology will assign a unique identification number.
- (C) If applicable, the facility and unit identification numbers as used for reporting to the U.S. EPA Acid Rain Program, U.S. EPA pursuant to 40 C.F.R. Part 98, U.S. Energy Information Administration, Federal Energy Regulatory Commission's PURPA Qualifying Facility program, as applicable.
- (D) The physical address of each facility, including jurisdiction.
- (E) Provide names of facility owner and operator.
- (F) The percent ownership share and whether the facility or unit is under the electricity importer's operational control.
- (G) Total facility or unit gross and net nameplate capacity when the electricity importer is a GPE.
- (H) Total facility or unit gross and net generation when the electricity importer is a GPE.
- (I) Start date of commercial operation and, when applicable, date of repowering.
- (J) GPEs claiming additional capacity at an existing facility must include the implementation date, the expected increase in net generation (MWh), and a description of the actions taken to increase capacity.
- (K) Designate whether the facility or unit is a newly specified source, a continuing specified source, or was a specified source in the previous report year that will not be specified in the current report year.
- (L) Provide the primary technology or fuel type as listed below:
- (I) Variable renewable resources by type, defined for purposes of this chapter as pure solar, pure wind, and run-of-river hydroelectricity;
- (II) Hybrid facilities such as solar thermal;
- (III) Hydroelectric facilities  $\leq$  30 MW, not run-of-river;
- (IV) Hydroelectric facilities  $\geq$  30 MW;
- (V) Geothermal binary cycle plant or closed loop system;
- (VI) Geothermal steam plant or open loop system;
- (VII) Units combusting biomass-derived fuel, by primary fuel type;
- (VIII) Nuclear facilities;
- (IX) Cogeneration by primary fuel type;
- (X) Fossil sources by primary fuel type;
- (XI) Co-fired fuels;
- (XII) Municipal solid waste combustion;
- (XIII) Other.
- (ii) Additional information for specified sources. For each claim to a specified source of electricity, the electricity importer must indicate whether one or more of the following descriptions applies:
- (A) Deliveries from new facilities. Specified source of electricity is first registered pursuant to this section and delivered by an electricity importer within 12 months of the start date of commercial operation and the electricity importer making a claim in the current data year is either a GPE or purchaser of electricity under a written power contract;

(B) Deliveries from existing facilities with additional capacity. Specified source of electricity is first registered pursuant to this section and delivered by a GPE within 12 months of the start date of an increase in the facility's generating capacity due to increased efficiencies or other capacity increasing actions.

(iii) Additional information for deemed market importers for claims of specified sources of electricity. To receive a positive verification statement upon verification for claims of specified imports from a centralized electricity market the electric power entity must be able to demonstrate to ecology's satisfaction that the market operator designated, assigned, deemed, or otherwise attributed energy from those resources to Washington. Proof of such attribution may be demonstrated upon request by settlement records or other information such as that provided by the market operator to the market participant showing that energy offered by the deemed market importer was attributed to Washington. This provision of records and other information must be submitted to ecology in a manner designated by ecology by May 1st for electricity transactions involving centralized electricity markets in the previous calendar year.

(4) **Recordkeeping.** GHG inventory program for electric power entities that import or export electricity. In lieu of a GHG monitoring plan, electric power entities that import or export electricity must prepare GHG inventory program documentation that is maintained and available for verifier review and ecology audit pursuant to the recordkeeping requirements of this section. The following information is required:

(a) Information to allow the verification team to develop a general understanding of entity boundaries, operations, and electricity transactions;

(b) Reference to management policies or practices applicable to reporting pursuant to this section;

(c) List of key personnel involved in compiling data and preparing the emissions data report;

(d) Training practices for personnel involved in reporting delivered electricity and responsible for data report certification, including documented training procedures;

(e) Query of e-tag source data to determine the quantity of electricity (MWh) imported, exported, and wheeled for transactions in which they are the purchasing-selling entity on the last physical path segment that crosses the border of Washington state, access to review the raw e-tag data, a tabulated summary, and query description;

(f) Reference to other independent or internal data management systems and records, including written power contracts and associated verbal or electronic records, full or partial ownership, invoices, reports and statements from market operators, and settlements data used to document whether reported transactions are specified or unspecified and whether the requirements for adjustments to covered emissions of chapter 70A.65 RCW, as described in chapter 173-446 WAC are met;

(g) Description of steps taken and calculations made to aggregate data into reporting categories required pursuant to this section;

(h) Records of preventive and corrective actions taken to address verifier and ecology findings of past nonconformances and material misstatements;

(i) Log of emissions data report modifications made after initial certification; and

(j) A written description of an internal audit program that includes emissions data report review and documents ongoing efforts to improve the GHG inventory program.