

**Comments
of the Western Power Trading Forum
To the Washington Department of Ecology
On the Proposed Amendments
to the Greenhouse Gas Reporting Rule**

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The Western Power Trading Forum (WPTF) appreciates the opportunity to provide input to the Washington Department of Ecology (Ecology) on proposed amendments to the Greenhouse Gas (GHG) reporting rules. WPTF is an organization of power marketers, generators, investment banks, public utilities and energy service providers, whose common interest is the development of competitive electricity markets in the Western United States. WPTF has over 90 members participating in power markets within the western states, as well as other markets across the United States and Canada. Many of our members are also covered entities under the California cap and trade program.

Our comments in the discussion below and specific textual edits that follow are intended to

- Ensure environmental integrity of the Climate Commitment Act (CCA);
- Provide more clarity on the entity responsible for reporting, calculation of emissions and consistent application of rules for different categories of electricity importers;
- Align reporting rules with California to simplify compliance of electric power entities (EPEs) that are subject to both programs and to enable linkage;
- Clarify that EPE reporting begins in 2023; and
- Provide for administrative calculation of emissions associated with Energy Imbalance Market electricity imports to the state.

Discussion

Ecology must address deficiencies in the reporting rules for EPEs that will undermine the environmental integrity of the CCA and hinder linkage to California.

WPTF has identified a number of areas within the proposed EPE reporting requirements that will undermine program integrity by potentially ‘missing’ emissions. The first is the emission threshold for reporting of electricity imports. It is important that Ecology have a comprehensive view of all electricity imported to the state to ensure that these imports and any associated emissions are correctly reported. This can occur only if EPEs are required to report *all* electricity imported into the state, regardless of the level of associated emissions. The California Air Resources Board (CARB) did not establish an emission threshold for reporting of electricity imports under its program for this reason.

WPTF recognizes that the 10,000 MT threshold for reporting is set out in section 33 of the CCA, but, as we have previously commented, this language applies to “suppliers” and “local distribution” companies – not specifically to EPEs or electricity importers. Further, additional provisions of section 33 suggests that Ecology has discretion to apply stricter reporting requirements. For instance, the same paragraph states that the reporting rules must support implementation of the CCA. This would appear to give Ecology discretion to impose a stricter reporting threshold if Ecology considers it important to support CCA compliance. Additionally, a later paragraph in section 33 authorizes Ecology to exempt entities that report to EPA from

reporting when emissions are less than ten thousand tons annually. This provision would be unnecessary if Ecology was required to exempt entities whose total annual emissions are less than the ten-thousand-ton threshold. We would therefore argue that it is within Ecology's statutory authority to require reporting of all electricity imports. Making this change would not affect the emissions threshold for covered entities under the CCA.

A related issue is the collection of data to validate the volume of imports reported by EPEs. CARB established a contract with Open Assess Technology International (OATI), the company that provides the software and platform for scheduling of electricity transactions across balancing authority areas (e-tags). Under this contract OATI provides data to CARB on annual imports into California for individual entities based on queries of the e-tag generation sources maintained in OATI's database. Ecology should set up a similar arrangement.

A second problem that would undermine environmental integrity of the CCA is that the proposed rule does not include a provision for calculation of emissions associated with electricity imports within the Bonneville Power Administration (BPA's) system. The CCA provides that, if BPA elects to comply with the program, BPA will be considered the responsible importer for emissions associated with electricity that it procures and provides for its preference customers in Washington state, and if BPA does not elect to comply, then its customers individually are considered the responsible importers. The provisions for calculation of an asset controlling supplier emission factor would apply to BPA, if it opts to register as an asset controlling supplier (ACS), but this provision does not address calculation of *emissions* associated with BPA imports (which would require multiplication of the emission factor by sales to BPA's Washington customers). The rule must address the calculation of emissions associated with imports from BPA's system, both for the case where BPA is considered the importer because it elects to comply with the CCA importer, and the case where individual BPA customers are considered importers, because BPA has does not.

Further, as WPTF previously commented, some consumer-owned utilities that are within the BPA balancing authority area also procure electricity in the wholesale electricity market. This electricity is delivered to scheduling points designated for those customers within BPA's system. Provisions to determine the entity responsible for the import and reporting of these transactions and associated emissions must be included in the final rule to capture these transactions and associated emissions.

Rules for electric power entities must be modified to provide certainty as to which entity bears reporting obligation for various import transactions, improve the calculation of associated emissions and ensure consistent application of rules for different categories of electricity importers.

In recognition of the fact that the Washington electricity system is very different than that of California, the CCA appropriately defines the importer for various scenarios in which electricity can be imported into Washington. While these import definitions are important, they are

insufficient on their own - the precise language of the various import scenarios must be used throughout the operational provisions of the EPE reporting section to provide certainty as to which entity will bear responsibility for any emissions associated with the import. For instance, it is not sufficient to require EPEs to report imported electricity at the “first point of delivery in Washington”, because determination of whether a delivery of electricity constitutes an import depends on whether the delivery of electricity is into a balancing authority area located entirely within Washington, or into a multistate balancing authority area.

Similarly, provisions pertaining to imports by the various multi-state entities (PacifiCorp, Avista, PNGC, NRU Power, and BPA) must be corrected. There are number of problems with the current provisions:

- First, each of the multistate entities may import electricity that they sell to other entities in the wholesale markets, for instance through ICE sales at Mid-C, as well as import from within their own systems to meet their Washington retail load (PacifiCorp or Avista), or to meet retail load of their Washington customers (BPA, PNGC, NRU Power). These two different types of imports must be separately reported in line with the definition of electricity importers, rather than built into the calculation of emissions from a multijurisdictional utility, or into the calculation of an asset controlling supplier emission factor.
- Second, all electricity sourced by resources located in Washington, whether owned by or purchased by the multistate entity, must be deducted from the calculation of the volume of their system imports for Washington customer load. (We note that for purposes of GHG accounting, the CCA treats all of BPA’s hydro system as being located outside the state of Washington. However, electricity that BPA purchases to balance its system may be sourced from generators within Washington.) Failure to deduct Washington state generation from the calculation of imports would result in an overstatement of imported electricity and associated emissions.
- Third, the calculation of the common pool system emission factor should allow for the possibility that a multi-state entity might allocate purchased specified electricity to customers in specific states, in addition to allocating their own resources to specific customers.
- Lastly, there is no need to have separate equations for calculation of the system common pool emission factor for asset-controlling suppliers and the multi-state entities, as the calculation should be the same for all the multi-state entities.

Our suggested textual edits address these issues and will improve transparency around the calculation of imports and emissions from multistate systems.

Reporting rules should be better aligned with those of California to simplify compliance of electric power entities that are subject to both programs and to prevent double counting of emissions under the two programs.

Due to the integration of electricity markets across the west, many entities that transact wholesale electricity will be subject to both the CCA and California's cap and trade program and considered EPEs in both states. Further, electricity from individual generating resources may be imported into either state at different times within a calendar year. Inconsistencies in reporting requirements of Washington and California, even with respect to such apparently minor issues as the emission factors assigned for unspecified electricity and individual specified sources, will create friction in electricity markets, because importers would need to use different contractual terms to account for different reporting requirements of each state. For this reason, Ecology should use the default emission factor currently used in California's program, rather than that used for reporting under the Clean Energy Transformation Act and coordinate with CARB on any future updates of the default emission factor. Ecology should also use identical methods and data used by CARB to calculate the emission factor for individual specified sources registered in both programs, to ensure that the emission factor assigned is the same under both programs.

WPTF also suggests that Ecology allow EPEs that import into both California and Washington to use single verifier (provided that the verifier is approved in both states) and a single verification process each year for both programs. While the two reports will be different, reflecting the different imports to each respective state, allowing one verifier to check documentation for imports under both programs would reduce administrative costs for EPEs and save time.

Additionally, WPTF would like to see Ecology and CARB recognize and provide compliance credit for imports under the respective emission trading programs for emissions from resources subject to the program in the other state. This would ensure that emissions are not accounted at the generator level in California and at the import level in Washington, and vice versa, prior to program linkage. We recognize that such an agreement would need to be developed in consultation with CARB and reflected in the emission trading program rules, rather than the GHG reporting rules, in both states. However, Ecology should add a provision to the reporting rule that would enable identification of imports sources from California if such reciprocity is established.

The rules should clearly state that EPE reporting begins in 2023.

During the November 9th hearing, Ecology staff indicated that reporting for sectors that are newly subject to reporting would occur in 2023 for the 2022 calendar year. WPTF appreciates this clarification, as it would not be fair to retroactively apply reporting rules to 2021 electricity import transactions. The final rule should clearly state that reporting by EPEs begins in 2023.

Ecology should defer accounting of emissions associated with EIM imports until it can hold a technical workshop.

WPTF has several concerns regarding Ecology's proposed approach to determining emissions associated with EIM imports. First, the proposal to attribute emissions associated with EIM imports to EIM participating utilities (and presumably the CCA compliance obligation for these emissions) is fundamentally inconsistent with the First Jurisdictional Deliverer (FJD) approach. The objective of the FJD approach is to assign responsibility for emissions for electricity imports to the entities able to influence the sources of electricity imported into a state. This is why the framework developed by the Western Climate Initiative in 2009 assigns the emission obligation to purchasing-selling entity on e-tags where electricity crosses into a capped jurisdiction. It is also why CARB considers EIM resource scheduling coordinators to be importer for electricity imported into California via the EIM.

Holding EIM participating utilities responsible for EIM imports is inappropriate for several reasons. First, buyers in organized electricity markets have no ability to influence the source of electricity that they purchase, and thus, no control over emissions. EIM utilities cannot even determine based on EIM settlement statements whether electricity that they have purchased from the EIM was sourced from outside Washington. Further, EIM transfers into a utility's BAA are not due directly to the actions of that particular entity, but rather a function of optimizing generator dispatch for load and transmission conditions across the entire EIM footprint.

Our second concern is that Ecology's proposed approach would overstate electricity imports into Washington. For California, the California Independent System Operator (CAISO) effectively has 'eyes on' the entire state system. This is because all utilities within the state are within the CAISO itself or the EIM – aggregated energy and load bids within the EIM in California reflect conditions within the state as a whole. Thus, EIM transfers into California BAAs truly represent electricity imports into the state.

The situation is completely different in Washington. Because several balancing authority areas in Washington are not currently participating in the EIM, it is not possible to determine whether electricity transferred into the state via the EIM represents an import without also considering transfers into and out of the non-EIM Washington BAAs. For instance, assume for simplicity that there were only 2 BAAs in Washington, both located fully inside the state but only one in the EIM. During an hour, 100 MW are transferred into the EIM BAA from out-of-state, while 200 MW are transferred out-of-state from the non-EIM BAAs. If the quantity of EIM electricity imported into the state were calculated based on EIM transfers alone, Washington would be considered to have imported 100MW for that hour. This value would be incorrect because the EIM transfers in were offset by the 200MW transfer out. Actual EIM imports to the state for the hour under this scenario would be 0.

Given these concerns, WPTF urges Ecology to hold a technical workshop to develop an interim solution for accounting for emissions associated with EIM imports that would apply beginning with 2023 transactions and until such a time that Ecology can develop a more rigorous approach in consultation with the CAISO and stakeholders. If Ecology is unwilling to postpone development of EIM accounting rules until it can hold a technical workshop, then WPTF recommends that the rule be revised so that Ecology calculates the volume of EIM imports for the state as a whole, based on a comparison of

aggregated EIM transfers and aggregated non-EIM transfers. Since this calculation will require hourly data on both EIM and non-EIM transfers, Ecology should contract with OATI to provide the data. Within the CCA program rules, Ecology could then establish a provision to retire allowances from the total annual allowance cap to cover emissions associated with EIM imports, rather than assigning a compliance obligation for EIM imports to particular entities. This administrative approach to addressing emissions associated EIM imports should remain in place until an alternative approach can be developed through a dedicated EIM rulemaking.

Edits to Draft Reporting Rule

WAC 173-441-030 Applicability.

~~(1) **Electric power entity reporting.** Reporting is mandatory for electricity importers subject to the Climate Commitment Act and retail providers. an owner or operator of any electric power entity with total GHG emissions that exceed the reporting threshold defined in (a) of this sub-section. GHG emissions from all applicable source categories listed in WAC 173-441-124 from the electric power entity must be included when determining whether emissions from the electric power entity meet the reporting threshold.~~

Commented [CB1]: For consistency with the California program, reporting should be mandatory for all electricity importers.

~~(2) **Electric power entity reporting threshold.** Any electric power entity that imports or delivers ten thousand metric tons CO₂e or more per calendar year in total GHG emissions from all applicable source categories listed in WAC 173-441-124 exceeds the reporting threshold.~~

~~(3) **Calculating electric power entity emissions for comparison to the threshold.** To calculate GHG emissions for comparison to the reporting threshold, the owner or operator must:~~

~~(4) Calculate the total annual emissions of each GHG in metric tons from all applicable source categories that are listed and defined in WAC 173-441-124. The GHG emissions must be calculated using the calculation methodologies specified in WAC 173-441-124 and available company records.~~

~~(5) Include emissions of all GHGs that are listed in Table A 1 of WAC 173-441-040, including all GHG emissions from the combustion of biomass, calculated as provided in the calculation methods referenced in WAC 173-441-124.~~

~~(6)(1) Sum the emissions estimates for each GHG and calculate metric tons of CO₂e using Equation A-1 of this section.~~

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 CO₂e emitted by a ~~((facility or supplier))~~ reporter required to report under this chapter and covered under any applicable source category listed in WAC 173-441-120, 173-441-122, or ~~((173-441-130))~~ 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 ~~((to the United States Environmental Protection Agency under 40 C.F.R. Part 98))~~ 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. ~~Reporting by electric power entities begins in 2023 for the 2022 calendar year.~~

Commented [CB2]: Reporting should not apply retroactively to transactions that have already occurred.

WAC 173-441-085 Third-party verification.

~~((The owner or operator of a facility that exceeds the compliance threshold under WAC 173-442-030 or voluntarily participating under WAC 173-442-030(6)))~~ Beginning with the 2023 emissions year, a person that emits 25,000 metric tons CO₂e or more per calendar year in total GHG emissions as calculated using the methods in WAC 173-441-030 or has a mandatory or voluntary compliance obligation under chapter 316, Laws of 2021, as described in chapter 173-446 WAC must have the ~~((facility's))~~ reporter's annual GHG reports verified by a third party as specified in this section. Third-party verification requirements are in addition to other verification and report correction requirements in this chapter.

(1) **Annual GHG reports must be third-party verified each emissions year that:**

(a) ~~The ((facility has a GHG emission reduction pathway under WAC 173-442-060))~~ reporter emits 25,000 metric tons CO₂e or more per calendar year in total GHG emissions as calculated using the methods in WAC 173-441-030 or is an electricity importer;

Commented [CB3]: No emission threshold for reporting by EPEs.

(b) ~~The ((facility is voluntarily participating under WAC 173-442-030(6)))~~ reporter has a mandatory or voluntary compliance obligation under chapter 316, Laws of 2021, as described in chapter 173-446 WAC;

(c) Is part of a baseline calculation ~~((for a new entrant after 2020 under WAC 173-442-050 (1)(b)))~~ or otherwise covered under chapter 316, Laws of 2021, as described in chapter 173-446 WAC; or

NEW SECTION

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.

Commented [CB4]: Emission reporting threshold for importers should be eliminated.

(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 ~~source~~ categories listed in (a) of this subsection using the methods in this section and in a format designated by Ecology.

Commented [CB5]: Ecology should provide a reporting workbook for EPEs, similar to that used by CARB.

- (a) Electric power entity ~~source~~ categories:
 - (i) Electricity importers and exporters, as defined in this section;
 - (ii) Retail providers, including multijurisdictional retail providers, as defined in this section;
 - (iii) Bonneville Power Administration (BPA)-Asset Controlling Suppliers;

Commented [CB6]: These are reporting categories, not emission source categories.

Commented [CB7]: Asset controlling suppliers are a category of EPE, not BPA.

(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.

Definitions related to EPE reporting

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

- (a) “Common system power pool” or “common pool” means electricity generated by resources owned by, or electricity purchased by, a power system operator to meet the collective electricity needs of its retail or wholesale customers.
- (b) “Common Pool Emission Factor” means an emission factor calculated by Ecology that represents emission per MWH of all generation owned by or purchased by a power system operator that is not allocated to a particular customer rate base.
- (c) “Delivered electricity” means electricity imported to or exported from a Washington scheduling point or a power system.
- (d) “Designated scheduling point” means a point of receipt or point of delivery associated with a Washington retail provider within a balancing authority area operated by a federal power marketing administration.
- (e) “Direct delivery of electricity” or “directly delivered” 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; The electricity is scheduled for delivery from the specified source to a Washington scheduling point or a power system 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; or there is an agreement to dynamically transfer electricity from the facility to a Washington Scheduling point or power system.
- ~~(a)~~ (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 thee-tag as the purchasing-selling entity on the last segment of thetag's physical path with the point of receipt located outside Washing-ton 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 opera-tor or owner;
 - ~~(iii) For electricity imported through a centralized market, the electricity importer is the energy imbalance market purchaser;~~
 - ~~(iv)~~ (iii) For electricity from facilities allocated to serve retail electricity customers of a multijurisdictional electric company, the electricity importer is the multijurisdictional electric company;
 - ~~(v)~~ (iv) If the importer identified under (a)(i) of this subsection is a federal power marketing administration over which Washington state does not have jurisdiction, and the

Commented [CB8]: In the final rule, Ecology should put definitions in alphabetical order, include section headings and revise paragraph numbering to facilitate readability.

Commented [CB9]: Added to enable a single equation for the calculation of system common pool emission factor for all the multistate entities and Asset Controlling Suppliers

Commented [CB10]: Added to allow for simpler drafting of text in operational portion of rule arounds requirements for specific types of import transactions.

Commented [CB11]: Ecology should consult with BPA to ensure that it has accurate information on these scheduling points and the entities to which they are registered.

Commented [CB12]: Definition of direct delivery is needed because this term is used in the operative provisions of the rule.

Commented [CB13]: Ecology should not determine the importer until such a time that has conducted a rule-making to consider the EIM in consultation with the CAISO.

federal power marketing administration has not voluntarily elected to comply with the program, 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)~~ (v) 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;

(vi) If the importer identified under (a)(vi) of this subsection has not voluntarily elected to comply with the ~~program~~ the Climate Commitment Act, then the electricity importer is the public body or cooperative customer or direct service industrial customer;

~~(vii)~~ (vii) 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.

~~(vii)(1)~~ (vii)(1) If the importer identified under (vii) is a federal power marketing administration that has not elected to voluntarily comply with the Climate Commitment Act, then the importer is the retail provider with which the scheduling point is associated.

or

~~(vii)~~ (viii) 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.

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

~~(h)~~ (h) "Energy imbalance market imports" or "EIM imports" means the total quantity of electricity delivered into and consumed in Washington as a result of dispatch and transfers within the EIM. EIM imports are calculated as the net of EIM interchange and interchange of non-EIM balancing authority areas for each year.

~~(b)~~ (i) "Energy imbalance market interchange" or "EIM interchange" means the sum of EIM energy transfer schedules for an EIM entity over a calendar year.

~~(e)~~ (j) "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.

~~(a)~~ (k) "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.

~~(e)~~ (l) "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.

Commented [CB14]: Program here refers to the CCA, not reporting

Commented [CB15]: This definition is needed to address BPA customers who also participate in the wholesale electricity market and have electricity delivered to specific points registered to those customers within the BPA system. The entity that delivers electricity to the scheduling point of these customers (which might be the customer or another entity) would be considered the importer.

Commented [CB16]: This term relates to the approach to regulating the electric sectors under the CCA, and is not needed here.

Commented [CB17]: Added to enable Ecology to calculate EIM imports, if Ecology does not choose to defer determination of how to address these emissions until after a technical workshop.

Commented [CB18]: Definition needed because this term is used in the operative portion of the rule.

(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.

~~(f)~~ (m) "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.

~~(g)~~ (n) "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.

~~(h)~~ (o) "Multijurisdictional retail provider" means a:

(i) Multijurisdictional electric company; or

(ii) Multijurisdictional consumer-owned utility.

~~(ii)~~ (iii) "Multistate system operator" means a multijurisdictional retail provider or federal marketing administration that has elected to comply with the Climate Commitment Act.

~~(i)~~ (p) "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.

(q) "Net interchange" means the sum of energy transfers in MWh between balancing authority areas.

~~(j)~~ (r) "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.

~~(k)~~ (s) "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.

~~(l)~~ (t) "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.

(i) "Electricity exporter" means electric power entities that deliver exported electricity. The entity that exports electricity is identified on the e-tag as the purchasing-

Commented [CB19]: Added to simplify drafting of the operative text, so that same provisions can apply to multijurisdictional utilities and BPA.

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.

~~(ii) "Electricity generation provider" means a provider of the energy or generation component of electricity services, as distinguished from the provider of transmission and/or distribution service that provides the wires for the transport of electricity. Electricity generation providers may include cogeneration facilities and other entities in addition to electrical distribution utilities that may provide both generation and transmission/distribution service.~~

Commented [CB20]: To address BPA customers that participate in the wholesale electricity market.

~~(iii) "Energy imbalance market purchaser" or "EIM purchaser" means, for a given data year an electrical distribution utility or EPE that directly or indirectly purchases any electricity through the EIM to serve Washington state load in the data year.~~

Commented [CB21]: This definition is not needed because term is not used in the operative text.

Commented [CB22]: Inappropriate

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

~~(v) "Electricity wheeled through Washington" or "wheeled electricity" means electricity that is generated outside Washington state and delivered into Washington state with the final point of delivery outside Washington state. Electricity wheeled through Washington state is documented on a single e-tag showing the first point of receipt located outside Washington state, an intermediate point of delivery located inside Washington state, and the final point of delivery located outside Washington state.~~

Commented [CB23]: This concept is meaningless for Washington state, as it would apply only to BAAs located entirely in Washington, and would not apply to multistate entities.

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

(iv) "Energy imbalance market imports" or "EIM imports" means the total quantity of electricity delivered into and consumed in Washington as a result of dispatch and transfers within the EIM. EIM imports are calculated as the net of hourly EIM interchange and hourly interchange of non-EIM balancing authority areas summed for each year.

Commented [CB24]: Added to enable Ecology calculation of EIM imports

(v) "Energy imbalance market interchange" or "EIM interchange" means the sum of hourly EIM energy transfer schedules for an EIM entity over a calendar year.

(vi) "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 Washington scheduling point,~~ with a final point of delivery outside Washington state. Exported electricity delivered across balancing authority areas is documented on e-tags with the first point of receipt ~~located inside Washington state at a Washington scheduling point~~ 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.

Commented [CB25]: Exported electricity provisions can apply only for electricity scheduled from within a BAA located entirely in Washington, or a designated customer scheduling point. Multijurisdictional utilities and BPA would report wholesale sales from their systems, not exports.

(vii) "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.

(viii) "First point of delivery in Washington" means the first defined point on the transmission system located inside a balancing authority area located entirely in Washington state at which imported electricity and electricity wheeled through Washington may be measured, consistent with defined points that have been established through the affiliated registry.

(ix) "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. Imported electricity and wheeled electricity are disaggregated by the first point of receipt on the e-tag.

~~(x) "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.~~

~~(xi) "Importer of record" means the owner or purchaser of the goods that are imported into Washington state.~~

~~(xii) "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.

~~(xiii) (xii) "Marketer" means a purchasing-selling entity that delivers electricity and is not a retail provider.~~

~~(xiv) "Particular end user" means a final purchaser of an energy product (e.g., electricity or thermal energy) for whom the energy product is delivered for final consumption and not for the purposes of retransmission or resale.~~

~~(xv) (xiii) "Point of receipt" or "POR" means the point on an electricity transmission or distribution system where an electricity receiver receives electricity, from a first jurisdictional 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.~~

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

(xv) "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 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.

~~(xvii) (xvi) Power system means the electric generating resources and transmission and distribution system operated by a multi-jurisdictional utility, federal marketing administration or asset controlling supplier.~~

Commented [CB26]: This sentence is unnecessary here. WPTF suggests more precise language for operative text.

Commented [CB27]: This term is not needed as it is not used for EPE reporting

Commented [CB28]: Not used for EPE reporting

Commented [CB29]: This term is not used for EPE reporting

Commented [CB30]: Term not needed

Commented [CB31]: Added to enable a single equation for calculation of system common pool emission factor for these entities.

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

~~(xix)~~ "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.

~~(xx)~~ (xviii) "Retail sales" means electricity sold to retail end users.

~~(xxi)~~ (xix) "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.

~~(xxii)~~ (xx) "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.

~~(xxiii)~~ "Substitute power" or "substitute electricity" means electricity that is provided to meet the terms of a power purchase contract with a specified facility or unit when that facility or unit is not generating electricity.

(xxi) "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.

(xxii) "Washington Scheduling Point" means a means the point on the electricity transmission or distribution system located in a balancing authority area located entirely in Washington, or a designated scheduling point associated with a Washington retail provider within a balancing authority area operated by a federal power marketing administration.

Commented [CB32]: Not used for EPE reporting

Commented [CB33]: These terms aren't used in operative section

Commented [CB34]: Not needed for EPE reporting.

Commented [CB35]: Added to enable operative text to be simplified

Data Requirements and Calculation Methods

(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 CO₂ equivalent (MT of CO₂e), with biogenic CO₂ reported separately, according to the calculation methods in this section.

(ii) Delivered electricity. The electric power entity must report imported, exported, and wheeled 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, including the energy imbalance market, and from each specified source. ~~Substitute electricity must be separately reported for each specified source, as 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 delivered electricity 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 ~~or a jurisdiction with a trading system that covers the electricity sector;~~

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

Commented [CB36]: Reporting of wheeled electricity is not necessary for multijurisdictional utilities, BPA or asset controlling suppliers. These entities will report purchases and sales

Commented [CB37]: Reporting of substitute electricity is not needed and not required by CARB because of the lesser of analysis. All 'substitute' electricity will be reported as specified or unspecified imports.

Commented [CB38]: Delivered is a better term to use because it also applies to multistate system and ACS reporting.

Commented [CB39]: Added to enable identification of imports in the event that Washington and California establish reciprocal recognition of each other's programs to avoid double regulation of emissions.

power system;

(C) The amount of ~~electricity~~ imports of unspecified electricity delivered to a Washington scheduling point that ~~are-is~~ netted by exports of unspecified electricity to any jurisdiction 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) ~~Imported-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 GPE must report ~~imported-delivered~~ electricity as from a specified source when the importer-EPE is a GPE of that facility. When reporting ~~imported-delivered~~ 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 316, Laws of 2021, 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 Washington scheduling point or point of delivery in the power system, 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 market. The reporting entity must separately report power obtained from the energy imbalance market.~~

~~(vi)~~ (v) ~~Imported-Delivered~~ electricity supplied by asset-controlling suppliers. The reporting entity must separately report ~~imported-delivered~~ 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) Tagging ACS power. To claim power from an asset-controlling supplier, the asset-controlling supplier must be identified 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.

Commented [CB40]: This provision would not apply to multistate systems, as the system calculation for those entities would have the effect of netting exports from their systems.

~~(vii)~~ (vi) **Exported electricity.** The electric power entity must report ~~exported~~ delivered electricity in MWh and associated GHG emissions in MT of CO₂e 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 the following information:

(A) Exported electricity as measured at the last ~~Washington scheduling point~~ 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)~~ (vii) **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)~~ **Electricity wheeled through Washington state.** ~~The electric power entity who is the PSE on the last physical path segment that crosses the border of Washington state on the e-tag must separately report electricity wheeled through Washington state, aggregated by first point of receipt, and must exclude wheeled power transactions from reported imports and exports. When reporting electricity wheeled through Washington state, the electric power entity must include the quantities of electricity wheeled through Washington state as measured at the first point of delivery inside Washington state. Only an electric power entity must report wheeled electricity through Washington state.~~

~~(x)~~ (viii) **Verification documentation.** The electric power entity must retain for purposes of verification documentation of e-tags, written power contracts, settlements data, and all other information required to confirm reported electricity procurements and deliveries pursuant to the recordkeeping requirements of WAC 173-441-050.

~~(xi)~~ (ix) **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.

~~(xii)~~ (x) **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.

Calculating GHG Emissions

(b) Calculating GHG emissions.

(i) **Calculating GHG emissions from unspecified sources.** For electricity from unspecified sources, the electric power entity must calculate the annual CO₂ equivalent mass emissions ~~using the method established in WAC 173-441-040(4) and~~ based on the amount of net imported electricity reported consistent with (a)(iii)(D) of this subsection using the equation below:

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

Commented [CB41]: Deleted because wheeling through Washington is meaningless for multistate systems.

Commented [CB42]: Reference to CETA methodology is inappropriate, as that method determines emissions associated with utility procurement, not imported electricity. Instead, the full calculation equation should be included here.

Where:

CO₂e = Annual CO₂ equivalent mass emissions from the unspecified electricity imports or purchases (MT of CO₂e).

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

EF_{unsp} = Default emission factor for unspecified electricity of .428 MT CO₂e /MWh.

TL = Transmission loss correction factor.

TL = TL = Transmission loss correction factor. TL = 1.02 for electricity imports to Washington, and when electricity purchases are not reported as measured at a first point of receipt located within the balancing authority area of multijurisdictional utility or federal power administration
 TL = 1.0 when electricity purchases are not reported as measured at a first point of receipt located within the balancing authority area of multijurisdictional utility or federal power administration

Commented [CB43]: The emission factor for unspecified sources should be the same as California's.

~~(i)~~ (ii) Calculating GHG emissions from specified facilities or units. For electricity from specified facilities or units, the electric power entity must calculate emissions using the following equation:

$$CO_2e = MWh \times TL \times EF_{sp} \quad (\text{Eq. 124-1})$$

Where:

CO₂e = Annual CO₂ equivalent mass emissions from the specified electricity deliveries from each facility or unit claimed (MT of CO₂e).

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

EF_{sp} = 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 to a Washington scheduling~~

Commented [CB44]: Unnecessarily detailed for description of equation terms.

point or power system

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 the power system.

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

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

Where:

Esp = CO₂e emissions for a specified facility or unit for the report year (MT of CO₂e).
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, Esp shall be equal to the sum of CO₂e 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, Esp 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 Esp 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.

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

Where:

0.001 = Conversion factor kg to MT

Commented [CB45]: This is not necessary. CARB does not require this information to register specified sources. See [https://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-power/mrr-ry2020-spec-source-registration\(epe-name\).xlsx?ga=2.204831187.219057198.1636315051-1672001501.1617123861](https://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-power/mrr-ry2020-spec-source-registration(epe-name).xlsx?ga=2.204831187.219057198.1636315051-1672001501.1617123861)

- 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 = CO₂e emission factor for the specified fuel type as required by this chapter (kgCO₂e/MMBtu). For geothermal electricity, EF is the estimated CO₂ 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) For specified sources registered with the California Air Resources Board, Ecology will coordinate with CARB to determine the appropriate emission factor.

(VI) 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.

A lesser of analysis is applicable to imports from specified sources, including imported electricity under EIM, 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:

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

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).

~~(ii)~~ (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 common pool emission factor for all asset-controlling suppliers recognized by the ecology. The reporting entity must calculate emissions for electricity supplied using the following equation:

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

Commented [CB46]: Emission factors for the same resources should be the same across the Washington and California programs.

Commented [CB47]: This provision pertains to reporting of specified source deliveries, not registration of specified sources. It should be moved to follow the calculation of emissions for specified sources, or moved out a level in the numbering hierarchy so that it is not a sub-paragraph under the provisions relating to Ecology calculation of emission factors for specified sources.

Where:

CO₂ = Annual CO₂ equivalent mass emissions from the specified electricity deliveries from ecology-recognized asset-controlling suppliers (MT of CO₂e).

MWh = Megawatt-hours of specified electricity deliveries.

EFACS = Asset-Controlling Supplier system emission factor published on the ecology website (MT CO₂e/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 WAC173-441-070(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.

Calculation of Common Pool Emission Factor

(A) Ecology must calculate or verify the system common pool emission factor for multi-state system operators and asset-controlling suppliers using the following equations:

$$\frac{EFACS_{EF}}{CP} = \frac{\text{Sum of System Emissions MT of CO}_2\text{e}}{\text{Sum of System MWh}} \quad (\text{Eq. 124-6})$$

$$\text{Sum of System Emissions, MT of CO}_2\text{e} = \frac{\sum E_{\text{own-cp}} + \sum (PE_{\text{sp-cp}} * EF_{\text{sp}}) + \sum (PE_{\text{unsp-NE}} * EF_{\text{unsp}}) - \sum (SE_{\text{sp}} * EF_{\text{sp}})}{\sum (SE_{\text{sp}} * EF_{\text{sp}})} \quad (\text{Eq. 124-7})$$

$$\text{Sum of System MWh} = \frac{\sum EG_{\text{asp}} - \sum EG_{\text{own-co}} + \sum PE_{\text{sp-cp}} + \sum PE_{\text{unsp}} - \sum SE_{\text{sp}}}{\sum SE_{\text{sp}}} \quad (\text{Eq. 124-8})$$

Commented [CB48]: The calculation of the system emission factor should be the same for all these entities. The calculation of the system common pool emission factor for each entity should exclude any electricity allocated to particular states or customers.

Where:

- $\sum_{wn-cp} E_{o}$ = Emissions from owned facilities. Sum of CO₂e emissions from each specified facility/unit in the asset-controlling supplier's fleet that are not located in Washington and not allocated to specific states or customers (MT of CO₂e).
- $\sum_{pass} E_{ownc}$ = Net generation from owned facilities. Sum of net generation for each specified facility/unit in the asset-controlling supplier's system operator's fleet that are not located in Washington and not allocated to specific states or customers the data year as reported to ecology under this chapter (MWh).
- PEsp = Electricity purchased from specified sources not located in Washington and not allocated to specific states or customers. 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).
- $\frac{PEunsp}{ETunsp}$ = Electricity purchased from unspecified sources not located in Washington, not allocated to specific states or customers and excluding EIM purchases. 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 = CO₂e emission factor as defined for each specified facility or unit calculated consistent with (b)(ii) of this subsection (MT CO₂e/MWh).
- EFunsp = Default emission factor for unspecified sources calculated consistent with (b)(i) of this subsection (MT CO₂e/MWh).

Commented [CB49]: These resources would be considered unspecified because the electricity is not purchased through a specified contract, but their location can be identified via e-tag after scheduling. The volume of any electricity sourced from Washington should not be included in the calculation of the common pool emission factor to prevent double counting of the electricity and associated emissions.

Multijurisdictional utilities and asset controlling suppliers may choose to allocate unspecified purchases to particular customers, in which case those emissions should not be included in the system common pool emission factor calculation

Commented [CB50]: EIM imports should be addressed separately

Commented [CB51]: This entire section replaces the section in the proposed amendments on calculating GHG emissions for multijurisdictional utilities. It provides for a more transparent accounting of electricity sourced from resources located in Washington (both owned and purchased, sourced from resources located outside Washington and allocated to Washington customers, and sourced from the common system pool.

Additionally, it provides for the calculation of emissions associated with BPA's imports for its customers, both for the scenario in which BPA elects to comply with the CCA, and the scenario in which it does not.

Imports from Multi-state Systems

Calculating GHG emissions of imported electricity from multistate systems.

- a) Multistate system operators must calculate and report emissions associated with imports from

their systems according to the equations below.

i) Report the volume of electricity imported to Washington as:

$$NI_{sys} = MWh_R - (\sum EG_{sys-WA} + \sum PE_{sys-WA})$$

Where:

NI_{sys} = Net imports by multistate power system operator

MWh_R = Total retail load of or total sales of multistate system operator in Washington

EG_{sys-WA} = Net generation from all owned resources located in Washington, regardless of where allocated

PE_{sys-WA} = Purchased electricity from resources located in Washington

ii) Report emissions associated with any specified sources imported to Washington, pursuant to any applicable resource allocation as

$$EM_{ALL-WA} = \sum EM_{OWN-WA} + \sum EM_{SP-WA}$$

Where:

EM_{ALL-WA} = Total annual CO₂ equivalent emissions associated with imports of electricity from resources located outside of Washington and allocated to Washington rate base

EM_{own-wa} = Total annual CO₂ emissions associated with owned generation resources, located outside of Washington and allocated to Washington customers

EM_{sp-wa} = Total annual CO₂ emissions associated with purchased specified electricity from resources located outside Washington and allocated to Washington customers

iii) Report any electricity imported to Washington from the system common pool, pursuant to any applicable resource allocation as

$$EM_{CP} = (NI_{sys} - EG_{ALL-WA}) * EF_{CP}$$

Where:

EM_{CP} = Total annual CO₂ emissions associated with imports from a common system power pool

NI_{sys} = Net imports from common pool

EG_{ALL-WA} = Volume of electricity imported from resources located outside of Washington and allocated to Washington rate base

EF_{CP} = System common pool emission factor

iv) Report total covered emissions associated with imports from the power system as

$$CO2_{MSP} = EM_{ALL-WA} + EM_{CP}$$

Where:

CO2_{MSP} = Total CO₂ equivalent emissions associated with electricity imports by a multistate power system operator

v) Multistate system operators should sum covered emissions associated with bilateral imports into Washington and covered emissions associated with imports from the multistate power system to determine total covered emissions.

b) A public body, cooperative or direct service industrial customers of a federal power marketing administration that has not elected to comply with the Climate commitment act must calculate and report emissions associated with electricity imported from that system as:

Commented [CB52]: Note that the value of this term would be 0 for BPA, because the Climate Commitment Act treats the entire federal hydro-system as being out of state.

Commented [CB53]: This provisions provides for the calculation of imports for BPA customers if BPA does not elect to comply with the CCA.

$$CO2_{COV-cus} = \frac{MWh_{R-cus}}{MWh_R} * EF_{CP-FMA}$$

Where:

CO2_{COV-CUS} = Total annual CO2 equivalent covered emissions of the customer

MWh_{R-CUS} = Annual retail sales of customer

MWh_R = Annual total sales of federal marketing administration to all customers

EF_{CP-FMA} = Common pool emission factor of federal marketing administration system

~~(1111) 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:~~

~~$$CO_2e = (MWhR \times TLR - MWhWSP-WA - EGWA) \times EFMJRP + MWhWSP-notWA \times TLWSP \times EFUnsp - CO_2e-linked \quad (Eq. 124-9)$$~~

~~Where:~~

- | | | |
|----------------------------|--------------|--|
| CO₂e | = | Annual CO₂e mass emissions of imported electricity (MT of CO₂e). |
| 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 ae-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	=	Multijurisdictional retail provider system emission factor 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 ₂ 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.
TLWSP	=	1.02 for transmission losses applied to wholesale power.
TLR	=	Estimate of transmission losses from busbar to end user reported by multijurisdictional retail provider.
CO ₂ e linked	=	Annual CO ₂ e mass emissions recognized by ecology pursuant to linkage under chapter 316, laws of 2021, as described in chapter 173-446 WAC (MT of CO ₂ e).

Emissions from EIM Imports

(4) Ecology will calculate the total quantity of electricity imported into Washington via the Energy Imbalance Market for each year according to the following equation, using data acquired from Open Access technology International:

$$EIM_{WA} = \sum(\sum EIM_{INT} + \text{MIN}(0, \sum INT_{WA})) + \sum \left(\frac{MWh_{sys-WA}}{MWh_{SYS}} * EIM_{SYS} \right)$$

Where:

EIM_{WA} = Volume of EIM imports into Washington state (MWh)

EIM_{INT} = The sum for each hour of EIM interchange for all EIM entity BAAs located entirely within Washington

INT_{WA} = The sum for each hour of net interchange of non-EIM BAAs located entirely in Washington state with BAAs not located entirely within Washington state

MWh_{sys-WA} = Washington load for each hour of multistate power system operator

MWh_{SYS} = Total load for each hour of multistate power system operator

EIM_{sys} = EIM transfers for each hour into BAA of multistate power system operator

Commented [CB54]: New provisions for administrative calculation of EIM imports and associated emissions for the state, if Ecology does not defer treatment of EIM emissions until after technical workshop.

Commented [CB55]: This would include any interchange from the Washington-only BAAs to BAAs of the multistate systems. Any EIM imports to Washington from the multistate systems would be picked up in the last term of this equation. Any sales from Washington non-EIM utilities to multistate system operators would be reflected in the calculation of emissions associated with imports of multistate system operators to serve Washington load.

(5) Ecology will calculate the total emissions associated with EIM imports into the state by multiplying the volume of any EIM imports by the emission factor for unspecified sources.

~~(4)~~ (6) 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.

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

(b) 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 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)~~ (v) 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)~~ (vi) 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.

(c) 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

Commented [CB56]: Included under revised section for multi-state power systems

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; 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.

(d) Requirements for claims of specified sources of electricity. Each reporting entity claiming specified facilities or units for imported or exported electricity must register its anticipated specified sources with ecology by ~~February 1st of each reporting year, the registration due date in WAC 173-441-060(4)~~ 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), 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

Commented [CB57]: The annual reports deadlines do not apply here. Registration of specified sources must occur earlier to enable Ecology to provide emission factors for reporting.

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. The physical address of each facility, including jurisdiction.

(D) Provide names of facility owner and operator.

(E) The percent ownership share and whether the facility or unit is under the electricity importer's operational control.

(F) Total facility or unit gross and net nameplate capacity when the electricity importer is a GPE.

(G) Total facility or unit gross and net generation when the electricity importer is a GPE.

(H) Start date of commercial operation and, when applicable, date of repowering.

(I) 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.

(J) 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 re-report year.

(K) 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 ≤ 30 MW, not run-of-river;

(IV) Hydroelectric facilities > 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) Emission factors. The emission factor published on the ecology website, calculated by ecology according to the methods in this section, must be used when reporting GHG emissions for a specified source of electricity.~~

~~(iii) Delivery tracking conditions required for specified electricity imports. Electricity importers must claim a specified source when the electricity delivery meets any of the criteria for direct delivery of electricity, and one of the following sets of conditions:~~

~~(A) The electricity importer is a GPE; or~~

~~(B) (i) The electricity importer has a written power contract for electricity generated by the facility or unit, subject to meeting all other specified source requirements.~~

~~(iv) (iii) 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 existing federally owned hydroelectricity facilities by exclusive marketers. Electricity from specified federally owned hydroelectricity facility delivered by exclusive marketers;

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Commented [CB58]: Duplicative of specified source calculation section

(B) 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;

(C) 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.

~~(7) Substitute electricity. Report substitute electricity received from specified and unspecified sources pursuant to the requirements of this section.~~

~~(5)~~ (7) **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, and settlements data used to document whether reported transactions are specified or unspecified and whether the requirements for adjustments to covered emissions of chapter 316, Laws of 2021, 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.

Commented [CB59]: Unnecessary. This language in the California regulation predates the lesser-of calculation. CARB does not require substitute electricity to be reported, because all electricity imports must be reported in accordance with program rules.