



Concise Explanatory Statement Chapter 173-441 WAC Reporting of Emissions of Greenhouse Gases

Summary of Rulemaking and Response to Comments

Washington State Department of Ecology
Olympia, Washington

February 2022, Publication 22-02-002

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¹ www.ecology.wa.gov/contact

Department of Ecology's Regional Offices

Map of Counties Served



Southwest Region 360-407-6300	Northwest Region 206-594-0000	Central Region 509-575-2490	Eastern Region 509-329-3400
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Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
Headquarters	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

Concise Explanatory Statement

Chapter 173-441 WAC Reporting of Emissions of Greenhouse Gases

Air Quality Program
Washington State Department of Ecology
Olympia, WA

February 2022 | Publication 22-02-002



DEPARTMENT OF
ECOLOGY
State of Washington

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Table of Contents

Introduction	2
Reasons for Adopting the Rule	2
Differences between the Proposed Rule and Adopted Rule	2
WAC 173-441-020 Definitions.....	3
WAC 173-441-030 Applicability.....	3
WAC 173-441-050 General monitoring, reporting, recordkeeping and verification requirements	3
WAC 173-441-085 Third-party verification.....	4
WAC 173-441-090 Compliance and enforcement.....	5
WAC 173-441-120 Calculation methods for facilities	5
WAC 173-441-122 Calculation methods for suppliers.....	5
WAC 173-441-124 Calculation methods for electric power entities	5
Topics.....	7
List of Commenters	9
Comments and Responses.....	16
Scope and purpose	16
Reporting protocols.....	21
Report content and requirements	24
Electric power entities	30
Suppliers	34
Verification	36
Linkage	39
Administrative	39

Introduction

The purpose of a Concise Explanatory Statement is to:

- Meet the Administrative Procedure Act (APA) requirements for agencies to prepare a Concise Explanatory Statement (RCW 34.05.325).
- Provide reasons for adopting the rule.
- Describe any differences between the proposed rule and the adopted rule.
- Provide Ecology’s response to public comments.

This Concise Explanatory Statement provides information on The Washington State Department of Ecology’s (Ecology) rule adoption for:

Title:	Reporting of Emissions of Greenhouse Gases
WAC Chapter(s):	173-441
Adopted date:	February 9, 2022
Effective date:	March 12, 2022

To see more information related to this rulemaking or other Ecology rulemakings please visit our website: <https://ecology.wa.gov/About-us/How-we-operate/Laws-rules-rulemaking>.

Reasons for Adopting the Rule

In 2021, the Legislature passed the Climate Commitment Act (CCA), which establishes a cap and invest program to help Washington meet the greenhouse gas (GHG) emissions limits set in state law. Section 33 of the CCA amends RCW 70A.15.2200, which directs Ecology to adopt rules requiring persons to report emissions of GHGs. Currently, emitters do not report about 75 percent of the GHG emissions included in the new cap and invest program, or they report them using methods inconsistent with the CCA. This rulemaking supports new CCA requirements by adding additional reporters to the existing greenhouse gas reporting program and updating reporting requirements.

Differences between the Proposed Rule and Adopted Rule

RCW 34.05.325(6)(a)(ii) requires Ecology to describe the differences between the text of the proposed rule as published in the Washington State Register and the text of the rule as adopted, other than editing changes, stating the reasons for the differences.

There are some differences between the proposed rule filed on October 6, 2021 and the adopted rule filed on February 9, 2022. Ecology made these changes for all or some of the following reasons:

- In response to comments we received.

- To ensure clarity and consistency.
- To meet the intent of the authorizing statute.

The following content describes the changes and Ecology’s reasons for making them.

WAC 173-441-020 Definitions

Subsection 020(1) Definitions specific to this chapter

We modified these definitions:

- 40 CFR Part 98: Revised the adoption by reference date from July 1, 2021 to February 9, 2022 to maintain consistency with the most recent version of the Environmental Protection Agency’s (EPA’s) rules. There were no changes to the federal rule in between these dates;
- Electric power entity: Updated to specify that the term includes “asset controlling suppliers” rather than “first jurisdictional deliverers.” Commenters requested the use of the broader term;
- Operator: Changed to reflect the structure of electric power entities (EPEs) because of a commenter’s request; and
- Fuel supplier: Revised for clarity.

We added one new definition:

- Asset controlling supplier: Requested by commenters.

WAC 173-441-030 Applicability

Subsections 030(2) Supplier reporting and (3) Electric power entity reporting

We clarified when new reporting requirements begin in this section.

WAC 173-441-050 General monitoring, reporting, recordkeeping and verification requirements

Subsection 050(3) Content of the annual report

We removed the requirement in (j) to describe any affiliation with other reporters. We made this change in response to public comments that the requirement lacked clarity and could be difficult to report.

We clarified requirements for facilities reporting self-generated electricity in (l).

We added text to (n)(i) explicitly allowing the reporting of more than one production metric because of a commenter’s request.

Table 050-1 Updates

- NAICS code 321XXX: Updated production metric to provide more clarity, as requested by a commenter.
- NAICS code 3221XX: Updated production metric to provide more clarity and add additional production metric options for paper or paperboard produced, as requested by a commenter.
- NAICS code 322299: Updated production metric to provide more clarity, as requested by a commenter.
- NAICS code 324110:
 - Updated production metric as requested by a commenter to one already included in GHG reports.
 - Phased in the start of complexity weighted barrel reporting requirements to provide refineries with additional time to prepare to report this metric.
 - Moved 40 CFR Subpart MM facility reporting from section 120 to Table 050-1 for clarity.
- NAICS code 334413: Updated production metric from “square meters of wafer produced” to “square meter of mask layer produced,” as requested by a commenter.
- NAICS code 3364XX: Updated to include an additional production metric option: “square meters of external surface area of aircraft.”

We added text to (n)(iv) requiring a facility to inform Ecology if they wish to change their reported production metric in Table 050-1. We made this change due to the modifications to Table 050-1 allowing additional production metrics.

Subsection 050(6) Recordkeeping

We modified (e)(iv) to ensure consistent record request requirements between the monitoring plan and other rule provisions.

Subsection 050(7) Annual GHG report revisions

We updated (e) to ensure the record retention period is consistent throughout the rule.

Subsection 050(8) Calibration and accuracy requirements

We removed the missing data requirements based on data capture rate from (h) due to conflicts with EPA reporting requirements.

WAC 173-441-085 Third-party verification

We modified this section by adding “reported in 2024” to clarify when third-party verification requirements begin.

WAC 173-441-090 Compliance and enforcement

We modified this section to include subsection (3), which details phased enforcement for some reporting elements for the 2022 emissions year. We made this change in response to public comments and to allow reporters to adapt to new reporting requirements and tools.

WAC 173-441-120 Calculation methods for facilities

Subsection 120(5) Emissions subject to reporting, but not subject to the reporting threshold

We moved the requirement to submit the existing facility level Subpart MM report for petroleum refineries from this section to subsection 050(n), the section containing information on supplemental product data reporting. We made this change to clarify requirements.

WAC 173-441-122 Calculation methods for suppliers

Subsection 122(1) General requirements

We added clarifying language to explain that a supplier cannot split operations into multiple sub-suppliers to circumvent the reporting threshold.

Subsection 122(2) Definitions specific to suppliers

We removed “For the purposes of this chapter” from (l) and changed “this chapter” to “Chapter 173-441 WAC” in (m) in response to a stakeholder request for clarity.

Subsections 122(4) Suppliers of natural gas, and (5) Fuel suppliers other than suppliers of natural gas

We updated these subsections for term consistency with Chapter 173-446 WAC and the updated “fuel supplier” definition in section 020.

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

Subsection 124(1) General requirements

We removed the word “source” in response to requests to clarify how EPEs are categorized. We also changed “Bonneville Power Administration” to “Asset Controlling Suppliers” in subsection (a)(iii) and clarified reporting methods for electric generating facilities in subsection (a)(iv).

Subsection 124(2) Definitions specific to electric power entities

We added definitions for “direct delivery of electricity,” “electricity generating facility,” and “generation providing entity” due to stakeholder requests.

We removed the following definitions since they are not used in the adopted rule:

- “Importer of record”;

- “Electricity generation provider”;
- “Particular end user” at the request of commenters; and
- “Substitute power” or “substitute electricity.”

We clarified who is the importer of EIM power in (c)(iii). We also made a minor clarification in (c)(v) and (vii) by changing “this program” to “this chapter.”

We added language in (c)(viii) and (ix) clarifying requirements for entities that do not have e-tags for all of their transactions. We made this change in response to stakeholder requests.

In (o), we added additional language describing “electricity exporters” at the request of commenters. We also removed the description of “EIM purchaser” from this subsection in response to comments.

We removed references to “wheeled electricity” throughout this section in response to comments.

At the request of commenters, we removed “first jurisdictional” from the term “first jurisdictional deliverer” in one case when the more generic form of the term was appropriate.

Subsection 124(3) Data requirements and calculation methods

In (a), we removed a sentence about substitute electricity reporting at the request of commenters. We also changed the term “imported electricity” to “delivered electricity” and clarified terminology in (a)(iv) at the request of commenters.

In (a)(v)(E), we added language for situations in which e-tags are not available, as requested by commenters.

We removed references to “wheeled electricity” throughout this section in response to comments.

We removed “including imported electricity under EIM” from (b)(ii)(B)(VI) at the request of commenters.

We corrected a typographical mistake to the multi-jurisdictional retail provider emissions formula (equation 124-9) and updated one term at the request of commenters.

We updated (g) to require registration of anticipated specified sources in the greenhouse gas report. We also removed text in (g)(ii) and (iii) because it was duplicative with other requirements. We removed text in (g)(iv) at the request of commenters, since the language is not applicable to Bonneville Power Administration.

We removed language relating to “substitute electricity” at the request of commenters since this concept is not applicable to Washington.

Topics

We grouped and organized comments and responses together by topic. We used the following topics to group comments together:

- Administrative
 - Assigned Emissions Level
 - Confidential Business Information
 - Effective Date
 - References and Technical Clarifications
 - Referencing Chapters 173-446 and 173-446A WAC
 - Reporter Classification
 - Reporting Deadline
 - Reporting Fees
 - Rulemaking Process
- Electric Power Entities
 - Definitions
 - Electricity Transactions
 - Emissions Sources Terminology
 - Energy Imbalance Market
 - Interstate and International Carbon Pricing Agreements
 - Multi-jurisdictional Entities
 - Multi-jurisdictional Retail Provider Emissions Formula
 - References to Asset Controlling Supplier
 - Threshold for Electric Power Entity (EPE) Reporting
 - Unspecified Emission Factor
 - Wheeled Electricity
- Linkage
 - Program Linkage
- Report Content and Requirements
 - Facility Electricity Use or Generation
 - Method Change Requirements
 - Missing Data and Calibration Requirements
 - Narrative Description of Emissions Changes and Monitoring Plan

- Product Data
- Record Retention
- Reporter Affiliations
- Reporting Protocols
 - Biogenic and Renewable Emissions
 - Foundation
 - Lifecycle
 - Sequestration and Carbon Dioxide Suppliers
 - Waste
- Scope and Purpose
 - Goals and Purpose
 - Expand Coverage
 - Fugitive Emissions and Methane Leaks
- Suppliers
 - Clarifications
 - Natural Gas
 - Other Fuels
- Verification
 - Third-Party Verification

List of Commenters

We accepted comments between October 6 and November 16, 2021. We included summaries of the comments received. You can see the original content of the comments we received at our [online comments website](#).² These comments remain available online for two years after the rule adoption date. We grouped comments and organized them by topic. Under each topic heading, you can see all the comments we received for that topic, followed by responses to the comments.

Table 1: List of Commenters, Topics, and Comment Numbers

Affiliation	Commenter	Topic	Comment Number
Individual			
	Robin Briggs	Fugitive emissions and methane leaks	I-12-1
	Arvia Morris	Fugitive emissions and methane leaks	I-11-1
	Iris Antman	Verification	I-9-1
	Janet Hays	Expand Coverage	I-7-1
	Louise Kulzer	Fugitive emissions and methane leaks	I-2-1
	Louise Kulzer	Fugitive emissions and methane leaks	I-5-1
	Michael Ruby	Fugitive emissions and methane leaks	I-10-1
	Michael Ruby	Clarifications	I-10-2
	Nancy Hansen	Goals	I-13-1
	Nancy Hansen	Verification	I-13-2
	Nancy Hansen	Expand Coverage	I-13-3
	Nancy Hansen	Linkage	I-13-4
	Richard Voget	Fugitive emissions and methane leaks	I-6-1
	Robert Sappington	Record Retention	I-1-1
	Robert Sappington	Expand Coverage	I-1-2
	Robert Sappington	Expand Coverage	I-3-1
	Rosemary Sweeney	Fugitive emissions and methane leaks	I-8-1
	Stacey Valenzuela	Expand Coverage	I-4-1
	Tim Gould	Fugitive emissions and methane leaks	I-14-1

² <https://aq.ecology.commentinput.com/comment/extra?id=9m3jh>

Affiliation	Commenter	Topic	Comment Number
Business			
Avista Utilities	Kevin Booth	Rulemaking Process	B-6-1
Avista Utilities	Kevin Booth	Linkage	B-6-2
Avista Utilities	Kevin Booth	Narrative/Monitoring Plan	B-6-3
Avista Utilities	Kevin Booth	Reporting Deadline	B-6-4
Avista Utilities	Kevin Booth	Natural Gas	B-6-5
Avista Utilities	Kevin Booth	Biogenic and Renewable Emissions	B-6-6
bp America, Inc.	James Verburg	Sequestration and CO ₂ Suppliers	B-3-1
bp America, Inc.	James Verburg	Product Data	B-3-2
bp America, Inc.	James Verburg	Missing Data/Calibration	B-3-3
Cascade Natural Gas Corporation	Abbie Krebsbach	Natural Gas	B-11-1
Cascade Natural Gas Corporation	Abbie Krebsbach	Linkage	B-11-2
Cascade Natural Gas Corporation	Abbie Krebsbach	Rulemaking Process	B-11-3
Cascade Natural Gas Corporation	Abbie Krebsbach	Biogenic and Renewable Emissions	B-11-4
Hammerschlag LLC	Roel Hammerschlag	Verification	B-1-1
NW Natural	Kellye Dundon	Sequestration and CO ₂ Suppliers	B-4-1
NW Natural	Kellye Dundon	Biogenic and Renewable Emissions	B-4-2
NW Natural	Kellye Dundon	Natural Gas	B-4-3
PacifiCorp	Mary Wiencke	Reporting Deadline	B-9-1
PacifiCorp	Mary Wiencke	Multi-jurisdictional Retail Provider Formula	B-9-2
PacifiCorp	Mary Wiencke	Energy Imbalance Market	B-9-3
Phillips 66	Supported comments submitted by: WSPA	Refer to these comments for topics	
Phillips 66	Steven Smith	Verification	B-5-1
Phillips 66	Steven Smith	Reporting Deadline	B-5-2
Phillips 66	Steven Smith	Effective Date	B-5-3, B-12-4
Phillips 66	Steven Smith	Missing Data/Calibration	B-5-4

Affiliation	Commenter	Topic	Comment Number
Phillips 66	Steven Smith	Biogenic and Renewable Emissions	B-5-5, B-12-3
Phillips 66	Steven Smith	Sequestration and CO ₂ Suppliers	B-5-6, B-12-2
Phillips 66	Steven Smith	Product Data	B-5-7
Phillips 66	Steven Smith	Confidential Business Information	B-5-8
Phillips 66	Steven Smith	Other Fuels	B-12-1
Phillips 66	Steven Smith	Rulemaking Process	B-12-5
Powerex Corp.	Mike Benn	Multi-jurisdictional Entities	B-10-1
Powerex Corp.	Mike Benn	References/Technical Clarifications	B-10-2
Powerex Corp.	Mike Benn	Energy Imbalance Market	B-10-3
Powerex Corp.	Mike Benn	Carbon Pricing Agreements	B-10-4
Powerex Corp.	Mike Benn	Rulemaking Process	B-10-5
Puget Sound Energy	Lorna Luebbe	Linkage	B-7-1
Puget Sound Energy	Lorna Luebbe	Energy Imbalance Market	B-7-2
Puget Sound Energy	Lorna Luebbe	Natural Gas	B-7-3
Puget Sound Energy	Lorna Luebbe	Reporting Deadline	B-7-4
Puget Sound Energy	Lorna Luebbe	Verification	B-7-5
Puget Sound Energy	Lorna Luebbe	Biogenic and Renewable Emissions	B-7-6
Puget Sound Energy	Lorna Luebbe	Threshold for EPE Reporting	B-7-7
Puget Sound Energy	Lorna Luebbe	Unspecified Emission Factor	B-7-8
Puget Sound Energy	Lorna Luebbe	Rulemaking Process	B-7-9
Shell Energy North America	Supported comments submitted by: Western Power Trading Forum	Refer to these comments for topics	
Shell Energy North America	Christa Lim	Linkage	B-2-1
Shell Energy North America	Christa Lim	Effective Date	B-2-2
Shell Energy North America	Christa Lim	Reporting Deadline	B-2-3

Affiliation	Commenter	Topic	Comment Number
Shell Energy North America	Christa Lim	Multi-jurisdictional Entities	B-2-4
Shell Energy North America	Christa Lim	Unspecified Emission Factor	B-2-5
WaferTech LLC	Sally Hurst	Verification	B-8-1
WaferTech LLC	Sally Hurst	Product Data	B-8-2
Agencies			
Bonneville Power Administration	Supported comments submitted by: Joint Utilities	Refer to these comments for topics	
Bonneville Power Administration	Alisa Kaseweter	Reporting Deadline	A-3-1
Bonneville Power Administration	Alisa Kaseweter	Electricity Transactions	A-3-2, A-4-1
Bonneville Power Administration	Alisa Kaseweter	Verification	A-3-3
Bonneville Power Administration	Alisa Kaseweter	Energy Imbalance Market	A-3-4, A-4-3
Bonneville Power Administration	Alisa Kaseweter	Unspecified Emissions Factor	A-3-5, A-4-2
Bonneville Power Administration	Alisa Kaseweter	Wheeled Electricity	A-3-6
Bonneville Power Administration	Alisa Kaseweter	References to Asset Controlling Supplier	A-3-7
King County Solid Waste Division	Alexander Rist	Waste	A-2-1
King County Solid Waste Division	Alexander Rist	Natural Gas	A-2-2
King County Solid Waste Division	Alexander Rist	Record Retention	A-2-3
King County Solid Waste Division	Alexander Rist	Effective Date	A-2-4
U.S. Department of Energy	Mike Demiter	Verification	A-1-1
Organizations			
37 th Legislative District Democrats Environmental Caucus	Greg Stinson	Fugitive emissions and methane leaks	O-4-1
EarthJustice	Jaimini Parekh	Fugitive emissions and methane leaks	O-8-1
EarthJustice	Jaimini Parekh	Linkage	O-8-2

Affiliation	Commenter	Topic	Comment Number
EarthJustice	Jaimini Parekh	Goals	O-8-3
NW Pulp & Paper Association	Christian McCabe	Referencing Chapters 173-446 and 173-446A WAC	O-1-1
NW Pulp & Paper Association	Christian McCabe	Verification	O-1-2
NW Pulp & Paper Association	Christian McCabe	Confidential Business Information	O-1-3
NW Pulp & Paper Association	Christian McCabe	Reporter Classification	O-1-4
NW Pulp & Paper Association	Christian McCabe	Reporter Affiliations	O-1-5
NW Pulp & Paper Association	Christian McCabe	Product Data	O-1-6
NW Pulp & Paper Association	Christian McCabe	Method Change	O-1-7
NW Pulp & Paper Association	Christian McCabe	Record Retention	O-1-8
PPGA	Matthew Solak	Effective Date	O-7-1
PPGA	Matthew Solak	Lifecycle	O-7-2
PPGA	Matthew Solak	Other Fuels	O-7-3
PPGA	Matthew Solak	Biogenic and Renewable Emissions	O-7-4
Public Generating Pool	Therese Hampton	Reporting Deadline	O-9-1
Public Generating Pool	Therese Hampton	Effective Date	O-9-2
Public Generating Pool	Therese Hampton	Emissions Sources Terminology	O-9-3
Seattle City Light	Supported comments submitted by: Public Generating Pool; Western Power Trading Forum	Refer to these comments for topics	
Seattle City Light	Robert Cromwell	Linkage	O-3-1
Seattle City Light	Robert Cromwell	Verification	O-3-2
Seattle City Light	Robert Cromwell	Energy Imbalance Market	O-3-3
Seattle City Light	Robert Cromwell	Effective Date	O-3-4
Seattle City Light	Robert Cromwell	Reporting Deadline	O-3-5
Seattle City Light	Robert Cromwell	Rulemaking Process	O-3-6
Seattle City Light	Robert Cromwell	Foundation	O-3-7

Affiliation	Commenter	Topic	Comment Number
Tacoma Power	Lisa Rennie	Emissions Sources Terminology	O-6-1
Tacoma Power	Lisa Rennie	Reporting Deadline	O-6-2
Tacoma Power	Lisa Rennie	Effective Date	O-6-3
Tacoma Power	Lisa Rennie	Energy Imbalance Market	O-6-4
Tacoma Power	Lisa Rennie	Rulemaking Process	O-6-5
Western Power Trading Forum	Clare Breidenich	Carbon Pricing Agreements	O-5-1
Western Power Trading Forum	Clare Breidenich	Effective Date	O-5-2
Western Power Trading Forum	Clare Breidenich	Verification	O-5-3
Western Power Trading Forum	Clare Breidenich	Linkage	O-5-4
Western Power Trading Forum	Clare Breidenich	Multi-jurisdictional Entities	O-5-5
Western Power Trading Forum	Clare Breidenich	Threshold for EPE Reporting	O-5-6
Western Power Trading Forum	Clare Breidenich	Energy Imbalance Market	O-5-7
Western Power Trading Forum	Clare Breidenich	Electricity Transactions	O-5-8
Western Power Trading Forum	Clare Breidenich	Rulemaking Process	O-5-9
Western Power Trading Forum	Clare Breidenich	Definitions	O-5-10
Western Power Trading Forum	Clare Breidenich	Wheeled Electricity	O-5-11
WSPA	Jessica Spiegel	Effective Date	O-2-1
WSPA	Jessica Spiegel	Product Data	O-2-2
WSPA	Jessica Spiegel	Foundation	O-2-3
WSPA	Jessica Spiegel	Missing Data/Calibration	O-2-4
WSPA	Jessica Spiegel	Verification	O-2-5
WSPA	Jessica Spiegel	Sequestration and CO ₂ Suppliers	O-2-6
WSPA	Jessica Spiegel	Confidential Business Information	O-2-7
WSPA	Jessica Spiegel	References/Technical Clarifications	O-2-8

Affiliation	Commenter	Topic	Comment Number
WSPA	Jessica Spiegel	Biogenic and Renewable Emissions	O-2-9
WSPA	Jessica Spiegel	Goals	O-2-10
WSPA	Jessica Spiegel	Record Retention	O-2-11
WSPA	Jessica Spiegel	Reporting Deadline	O-2-12
WSPA	Jessica Spiegel	Reporter Classification	O-2-13
WSPA	Jessica Spiegel	Narrative/Monitoring Plan	O-2-14
WSPA	Jessica Spiegel	Assigned Emissions Level	O-2-15
WSPA	Jessica Spiegel	Reporting Fees	O-2-16
WSPA	Jessica Spiegel	Other Fuels	O-2-17
Other			
City of Spokane	Kelle Vigeland	Referencing Chapters 173-446 and 173-446A WAC	OTH-2-1
City of Spokane	Kelle Vigeland	Definitions	OTH-2-2
City of Spokane	Kelle Vigeland	Product Data	OTH-2-3
City of Spokane	Kelle Vigeland	Missing Data/Calibration	OTH-2-4
City of Spokane	Kelle Vigeland	Reporter Affiliations	OTH-2-5
City of Spokane	Kelle Vigeland	Electricity Use or Generation	OTH-2-6
City of Spokane	Kelle Vigeland	References/Technical Clarifications	OTH-2-7
City of Spokane	Kelle Vigeland	Waste	OTH-2-8
City of Spokane	Kelle Vigeland	Lifecycle	OTH-2-9
City of Spokane	Kelle Vigeland	References to Asset Controlling Supplier	OTH-2-10
Joint Utilities (Avista, PacifiCorp, Public Generating Pool, Puget Sound Energy, Seattle City Light, Tacoma Power)	Therese Hampton, Lisa Rennie, Mary Wiencke, Kevin Booth, Robert Cromwell, Lorna Luebbe	Linkage	OTH-1-1
Joint Utilities (Avista, PacifiCorp, Public Generating Pool, Puget Sound Energy, Seattle City Light, Tacoma Power)	Therese Hampton, Lisa Rennie, Mary Wiencke, Kevin Booth, Robert Cromwell, Lorna Luebbe	Emissions Sources Terminology	OTH-1-2

Affiliation	Commenter	Topic	Comment Number
Joint Utilities (Avista, PacifiCorp, Public Generating Pool, Puget Sound Energy, Seattle City Light, Tacoma Power)	Therese Hampton, Lisa Rennie, Mary Wiencke, Kevin Booth, Robert Cromwell, Lorna Luebbe	Energy Imbalance Market	OTH-1-3
Joint Utilities (Avista, PacifiCorp, Public Generating Pool, Puget Sound Energy, Seattle City Light, Tacoma Power)	Therese Hampton, Lisa Rennie, Mary Wiencke, Kevin Booth, Robert Cromwell, Lorna Luebbe	Multi-jurisdictional Entities	OTH-1-4
Joint Utilities (Avista, PacifiCorp, Public Generating Pool, Puget Sound Energy, Seattle City Light, Tacoma Power)	Therese Hampton, Lisa Rennie, Mary Wiencke, Kevin Booth, Robert Cromwell, Lorna Luebbe	Rulemaking Process	OTH-1-5
Washington Refuse and Recycling Association	Rod Whittaker	Product Data	OTH-3-1
Washington Refuse and Recycling Association	Rod Whittaker	Waste	OTH-3-2
Washington Refuse and Recycling Association	Rod Whittaker	Lifecycle	OTH-3-3

Comments and Responses

We organized comments and responses by grouping them together by topics. Under each topic heading, you can see a summary of comments Ecology received for that topic followed by Ecology's response to comments on that topic.

Scope and purpose

Comments on Goals and purpose

Commenters: Nancy Hansen (comment I-13-1), WSPA and Phillips 66 (comment O-2-10), EarthJustice (comment O-8-3)

Summary: The proposed rule is a good start, but the reduction targets for the Climate Commitment Act (CCA) need to be tightened. Another advocated setting the threshold for the reduction program in this regulation.

Response to Goals and purpose

Thank you for your comments. Reduction targets, CCA thresholds, and other CCA provisions are outside the scope of this rulemaking. This rule only covers greenhouse gas (GHG) reporting. We encourage you to participate in the [Chapter 173-446 WAC rulemaking](#)³ that focuses on the cap and invest program.

Ecology is not changing the rule due to these comments.

Comments on Expand coverage

Commenters: Robert Sappington (comments I-1-2 and I-3-1), Stacey Valenzuela (comment I-4-1), Janet Hays (comment I-7-1), Nancy Hansen (comment I-13-3)

Summary: Expand reporting to include new emissions or sectors. Specifically, expand reporting for agriculture, forestry, and plastics. Also, account for emissions of non-GHGs from asphalt or concrete production.

Response to Expand coverage

Thank you for your comments. RCW 70A.15.2200 establishes the scope of Washington’s GHG reporting program. Subsection (5)(a) limits the program to certain types of GHG emissions.

“The department shall adopt rules requiring persons to report emissions of greenhouse gases as defined in RCW 70A.45.010 where those emissions from a single facility, or from electricity or fossil fuels sold in Washington by a single supplier or local distribution company, meet or exceed ten thousand metric tons of carbon dioxide equivalent annually.”

RCW 70A.15.2200(5)(a) establishes the types of GHG emissions that are part of the program. Emissions from most agricultural, forestry, or plastics operations do not meet the definitions of suppliers or electric power entities in subsection (5)(h). Facility emissions are limited to specific subparts of the EPA’s 40 CFR Part 98 GHG reporting program.

This rulemaking covers the GHG emissions sources authorized under RCW 70A.15.2200. Some of the requested GHG emissions are included in the rule from various sources such as transportation, waste, some forms of combustion, and some forms of process emissions such as the adoption of 40 CFR Part 98 Subpart X: Petrochemical Production. Ecology will continue to track GHG emissions sources and protocols and update this regulation as appropriate when new sources meet statutory requirements.

Ecology is not changing the rule due to these comments.

Comments on Fugitive emissions and methane leaks

³ <https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-446>

Commenters: Louise Kulzer (comments I-2-1 and I-5-1), Richard Voget (comment I-6-1), Rosemary Sweeney (comment I-8-1), Michael Ruby (comment I-10-1), Arvia Morris (comment I-11-1), Robin Briggs (comment I-12-1), Tim Gould (comment I-14-1), 37th Legislative District Democrats Environmental Caucus (comment O-4-1), EarthJustice (comment O-8-1)

Summary: Include fugitive emissions in the reporting program and CCA. Methane leaks from natural gas pipelines, compressor stations, extraction, and other infrastructure are the biggest concern, but landfills, refinery flaring, and other fugitive emissions should also be included. The most recent studies for both emissions factors and global warming potentials should be used. Emissions factors should reflect more recent studies with higher leak rates based on top down measurements. Global warming potentials should come from the 5th Assessment Report of the Intergovernmental Panel on Climate Change.

The difference between facilities, suppliers, and electric power entities is confusing. Explain the difference using natural gas pipelines as an example to demonstrate that fugitive emissions will not be exempt. Commenters had various classification solutions to solve this problem, ranging from assigning leaks to facilities to creating a new fourth category or reporter.

Response to Fugitive emissions and methane leaks

Thank you for your comments. Ecology hears and shares your concerns about fugitive emissions, including methane leaks from the natural gas sector. The GHG reporting regulation already accounts for fugitive emissions as appropriate under RCW 70A.15.2200. This rulemaking maintains those provisions and we remain committed to tracking developments in this sector and updating and adding new fugitive emissions as appropriate when they meet the standards outlined in statute.

RCW 70A.15.2200 prescribes what type of GHG emissions are included in the program, who is required to report, and which external programs Ecology should use when adopting protocols that contain emissions factors and global warming potentials (GWPs). The statute sets up three main types of reporters: facilities, suppliers, and electric power entities. It also directs Ecology to base our reporting program on EPA's 40 CFR Part 98 and/or that of a linked jurisdiction, potentially a program like California or Quebec's GHG reporting programs.

Methane leaks from in-state compressor stations, landfills, and emissions from refinery flaring are already part of the reporting program. Some leaks from natural gas pipelines are also already included, but those emissions are incomplete due to limitations in EPA's reporting protocols. We expect EPA to update those protocols in the near future and intend to update this regulation to follow those changes when they are complete. Currently there is no extraction of fossil fuels in Washington and that is unlikely to change due to the geology of the state. However, protocols are already in place to require reporting if extraction or processing occur in the state. This reporting program is intended to only capture GHG emissions that occur in Washington or are consumed in Washington through the purchase of electricity. Lifecycle accounting for the natural gas sector that includes out of state extraction and processing is inconsistent with RCW 70A.15.2200; see the response to "Lifecycle" for more information.

Chapter 173-441 WAC already includes the most recent emissions factors and GWPs that are consistent with RCW 70A.15.2200. Year-to-year methodology consistency is critical in any baseline and reduce program such as the CCA. California and other jurisdictions often lag behind EPA on updates for this very important reason. Regulatory emissions tracking programs like Chapter 173-441 WAC and informational or analysis-based systems like SEPA have different needs and purposes. Ecology is currently using the most current emissions factors and GWPs available for regulatory programs. We intend to track updates to regulatory GHG accounting programs, including EPA and California, and update this regulation to follow changes to those programs when available. Updating now would be inconsistent with RCW 70A.15.2200, negatively impact our ability to link our cap and invest program with other jurisdictions, and make it difficult to implement reductions relative to a fixed baseline period in the past.

Ecology acknowledges that the difference between facilities, suppliers, and electric power entities is confusing. We are providing an example in Figure 1 to help clarify the differences and demonstrate that all eligible GHG emissions remain in the program—the emissions are just assigned to different organizations. Each rectangle in the example represents a separate reporter for the example utility. The utility must report emissions from all reporters. Emissions from compressor stations are part of the natural gas transmission system, typically operated by a different organization, and would be reported by that organization as facilities.

Ecology is not changing the rule due to these comments.

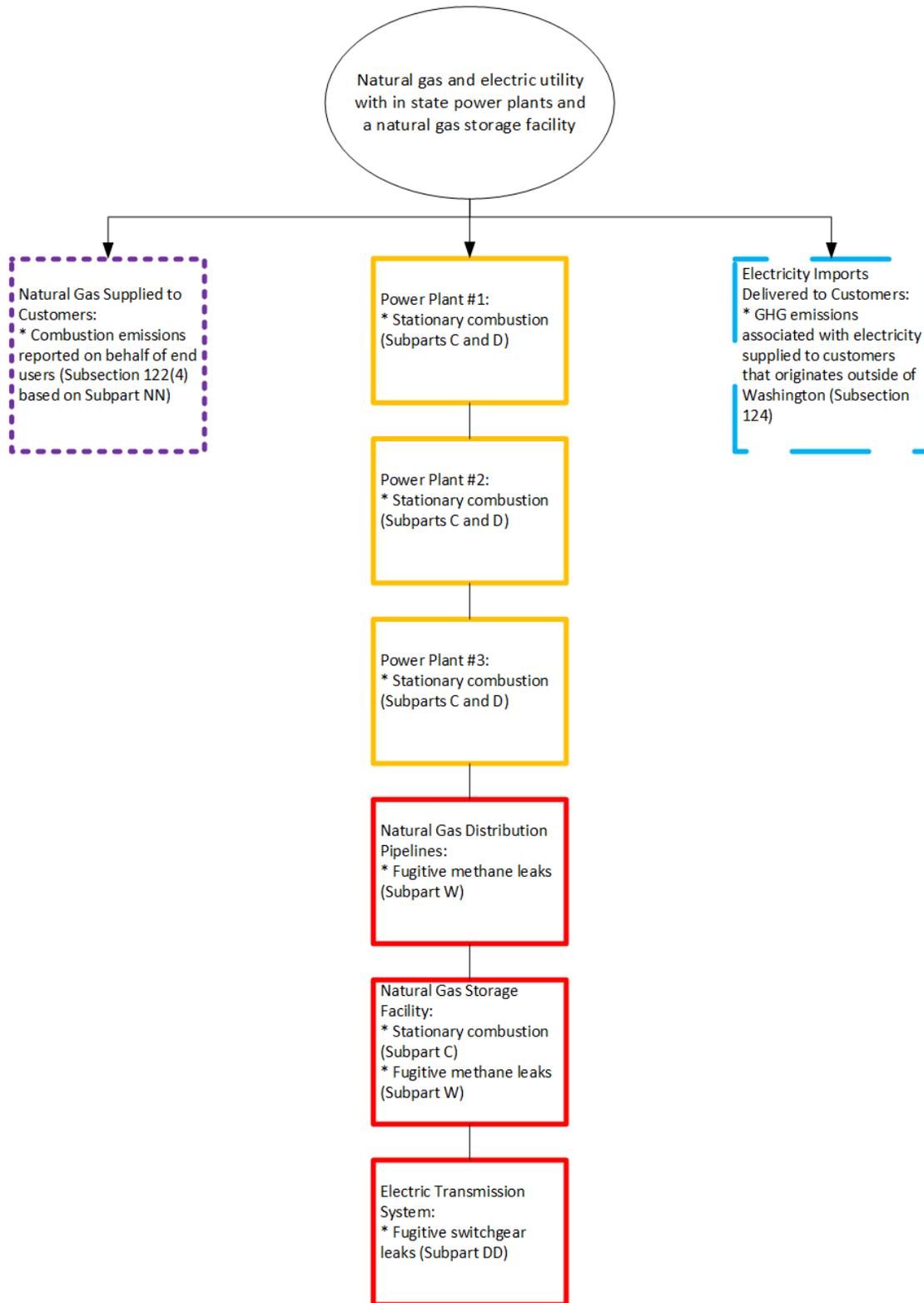


Figure 1: Example of a natural gas and electric utility with in-state power plants and a natural gas storage facility.

Each rectangle represents a separate reporter for the utility, the utility must report emissions from all reporters. Purple dotted lines = supplier. Dashed blue lines = electric power entity. Solid red lines (bottom three boxes) = facility. Solid orange lines (top three boxes) = a facility that is also part of the electric power entity reported as a facility.

Reporting protocols

Comments on Foundation

Commenters: WSPA and Phillips 66 (comment O-2-3) and Seattle City Light (comment O-3-7)

Summary: Stay with EPA based reporting protocols to save reporting costs. Alternately, switch to California based protocols to support linkage.

Response to Foundation

Thank you for your comments. RCW 70A.15.2200 directs Ecology to maintain consistency with both EPA's 40 CFR Part 98 GHG reporting program as well as with any reporting program from jurisdictions with which Washington has entered a linkage agreement. Ecology currently has not entered into a linkage agreement, but California is the most likely future linkage partner. EPA and California have similar but not identical GHG reporting programs.

Ecology is adopting a hybrid approach to address this inconsistency. Most protocols are EPA based to save reporting costs and maintain consistency with past reporting years that will likely be used to help set CCA baselines. We are adopting California based protocols when possible, mostly for suppliers and EPEs, to facilitate future linkage.

Ecology is not changing the rule due to these comments.

Comments on Waste

Commenters: King County Solid Waste Division (comment A-2-1), City of Spokane (comment OTH-2-9), Washington Refuse and Recycling Association (comment OTH-3-2)

Summary: Protocols for the waste sector are inaccurate or unfair. Some commenters view this as harmful for landfills, others think the protocols underestimate landfill emissions compared to other waste handling methods such as incineration.

Clarify, or do not include, the provision restricting how landfills can choose between the results of equations HH-6 and HH-8 for their GHG emissions.

Response to Waste

Thank you for your comments. RCW 70A.15.2200 directs Ecology to use protocols from EPA's 40 CFR Part 98 GHG Reporting program. Ecology has followed those protocols since Washington's program began in 2012. This rulemaking does not change that established practice.

The reporting protocols for landfills have more uncertainty than most in the program. This is partially due to landfill GHG emissions originating from a variable and diffuse decomposition process over years or decades. EPA's protocols also grant landfills several reporting exemptions such as exempting combustion emissions from flares and only requiring reporting for methane emissions while not including other GHGs such as carbon dioxide.

One key concern with Subpart HH is that methane emissions from landfills with gas capture are calculated two different ways, often with very different results. In some cases, EPA specifies which result to use for GHG emissions totals; in other cases, landfill operators are allowed to choose their desired result. This has led to inconsistencies in reporting between facilities and for a given landfill year-to-year. Consistency is needed to implement the CCA. Therefore, since the emissions calculated in equations HH-6 and HH-8 are both reported as subtotals for a facility, Ecology added instructions to use the higher value for total emissions instead of allowing the landfill operators to pick. This practice is consistent with how Ecology has implemented the program in the past, maintains the ability to submit a single acceptable report to both EPA and Washington, and improves reporting consistency.

Ecology is not changing the rule due to these comments.

Comments on Lifecycle

Commenters: City of Spokane (comment OTH-2-10), PPGA (comment O-7-2), Washington Refuse and Recycling Association (comment OTH-3-3)

Summary: Emissions should be reported on a lifecycle basis. Landfills were specifically mentioned by multiple commenters, some expressing landfills were the best option, others stating that incineration was preferable. Lifecycle accounting was also requested for the fuels sector, specifically for renewable propane.

Response to Lifecycle

Thank you for your comments. Consistent with other GHG reporting programs, RCW 70A.15.2200 directs Ecology to use direct emissions for GHG reports from facilities such as landfills and waste incinerators. Supplier and EPE reports are indirect emissions, but closely parallel direct emissions. This reporting program is not intended to calculate emissions on a lifecycle basis or compare the overall impact of two technologies or processes. This rulemaking does not change that existing practice, in place since the program began in 2012.

Lifecycle emissions are included in the Clean Fuels Program Rule ([Chapter 173-424 WAC⁴](#)). We encourage you to participate in that rulemaking.

Ecology is not changing the rule due to these comments.

⁴ <https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-424-455>

Comments on Sequestration and carbon dioxide suppliers

Commenters: bp America, Inc. (comment B-3-1), NW Natural (comment B-4-1), Phillips 66 (comments B-5-6 and B-12-2), WSPA (comment O-2-6)

Summary: Including options for reporting sequestration and suppliers of carbon dioxide are good. Those methods should be expanded to include all forms of sequestration. Ecology should base suppliers of carbon dioxide methods on existing EPA reporting. Reporters should be given credit under the CCA for these actions.

Response to Sequestration and carbon dioxide suppliers

Thank you for your comments. The rule already includes all currently developed and implemented EPA capture and sequestration GHG reporting protocols: Subpart RR: Geologic Sequestration of Carbon Dioxide, Subpart UU: Injection of Carbon Dioxide, and Subpart PP: Suppliers of Carbon Dioxide. No Washington facilities have used Subparts RR or UU to date. Subpart PP is already in place for facilities and is being expanded for non-facilities using EPA's protocols. We anticipate more reporting methods will be developed and added as sequestration becomes more common. Ecology will continue to track GHG emissions sources and protocols and update this regulation as appropriate when new carbon dioxide sequestration or supply protocols meet statutory requirements.

CCA impacts beyond reporting are outside the scope of this rulemaking. We encourage you to participate in the [Chapter 173-446 WAC rulemaking](#)⁵ that focuses on the cap and invest program.

Ecology is not changing the rule due to these comments.

Comments on Biogenic and renewable emissions

Commenters: Avista Utilities (comment B-6-6), Cascade Natural Gas Corporation (comment B-11-4), NW Natural (comment B-4-2), Phillips 66 (comments B-5-5 and B-12-3), PPGA (comment O-7-4), Puget Sound Energy (comment B-7-6), WSPA (comment O-2-9)

Summary: Expanding reporting for biogenic and renewable fuels like in WAC 173-441-020(1)(b) is a good thing. Expand that reporting even further and add clarity. The rule should support all types of contractual arrangements.

Response to Biogenic and renewable emissions

Thank you for your comments. In response to stakeholder feedback during the rule proposal phase and to provide flexibility for future renewable and biogenic fuels, text was added to section 122 that requires reporting of any renewable or biogenic version of a product listed in 40 CFR Part 98 Table MM-1, in addition to biomass-derived fuels listed in 40 CFR Part 98 Table MM-2. This additional text is consistent with the definition of

⁵ <https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-446>

fuel product in section 020(1)(h). However, we modified the rule text to clarify and avoid confusion:

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

This expansion covers a broad range of fuels. Further expansion of supplier reporting for renewable and biogenic emissions may have unintended consequences outside the scope of the regulation. For example, expansion may pull in suppliers of wood products, such as hog fuel, which is not the intent of the regulation.

Ecology added language to the definition of fuel supplier in section 020 to help clarify this issue.

Regarding biomass-fuel derived contractual agreements: We recognize the validity of the comment and will address the topic in a future rulemaking to allow for the time and space the topic requires.

Report content and requirements

Comments on Product data

Commenters: bp America, Inc. (comment B-3-2), City of Spokane (comment OTH-2-3), NW Pulp & Paper Association (comment O-1-6), Phillips 66 (comment B-5-7), WaferTech LLC (comment B-8-2), Washington Refuse and Recycling Association (comment OTH-3-1), WSPA (comment O-2-2)

Summary: Ecology should change the product data included in facility reports. Specifically, the following changes were recommended:

- 562213: Solid Waste Combustors and Incinerators should use tons of solid waste disposed instead of net megawatt hours.
- 3221XX: Pulp, Paper, and Paperboard Mills and 322299: All Other Converted Paper Product Manufacturing should use air-dried metric tons of paper, air-dried metric tons of paperboard, air-dried metric tons of pulp product, or let the facility pick their production metric. The units should specify that "air-dried" is considered 10% moisture.
- 334413: Semiconductor and Related Device Manufacturing should use square meters of mask layer instead of square meters of wafer produced.

A commenter requested Ecology remove the NAICS code 562111: Solid Waste Collection from the table as there are no active facilities in Washington and those facilities do not generate reportable GHG emissions.

A request was made to replace “total annual facility product data” with “total annual facility production.” The commenter also pointed out that permitting requires production numbers so the energy method described in Equation 050-1 is unlikely to be used.

A commenter requested the option of reporting based on applicable NAICS code and not just the primary NAICS code for co-located facilities.

Several commenters expressed concerns with complexity weighted barrel (CWB) reporting for 324110: Petroleum Refineries. Some asked for the requirement to be removed while others asked for the requirement to be phased, delayed, the reporting deadline extended, or to allow alternate methods. Commenters pointed out that new equipment and procedures are required and this can take some time, possibly requiring installation during a refinery shutdown.

Response to Product data

Thank you for your comments.

Comments to modify some production metrics in Table 050-1: In some cases, it was appropriate to modify a production metric and in other cases, we made no modification. In some cases, the option for multiple production metrics were included. Text was added to require a facility to contact Ecology if they wish to change the production metric reported when more than one production metric option is listed to facilitate this new option: “(iv) For a primary NAICS code in Table 050-1 that has multiple production metrics, a facility that wishes to change their reported production metric must contact ecology no later than forty-five calendar days prior to the emissions report deadline established in subsection (2) of this section and report total annual facility production data as instructed by the department.” We also added text explicitly allowing the reporting of more than one production metric: “Facilities may additionally report total annual facility product data as described in Table 050-1 for any reported secondary NAICS code.”

- NAICS code 3221XX covers pulp, paper and paperboard mills. Use of less than a full six-digit NAICS code broadens the type of facilities covered under the code. Providing several product data metrics options allows a facility to report the most applicable metric considering the broader coverage. We updated the Table 050-1 to provide more options for this NAICS code as requested: “Air dried (10% moisture) metric tons of produced: pulp product; or paper; or paperboard.” We also updated NAICS code 322299 to indicate air dried (10% moisture): “Air dried (10% moisture) metric tons of converted paper product produced”
- NAICS code 3364XX covers aerospace product and parts manufacturing. We added an additional production metric option: “square meters of external surface area of aircraft.”
- NAICS code 334413 covers semiconductor and related device manufacturing. Based on stakeholder feedback, we have updated Table 050-1 to change the production metric to “square meters of mask layer.”

- NAICS code 324110 covers petroleum refineries. Refineries expressed concerns around the CWB reporting, mostly related to timing, near term accuracy, and availability. Ecology is phasing the start of CWB reporting until after the first refinery turnaround after 2022 to give refineries time to plan, obtain, install, and implement equipment and procedures needed to fully and accurately report CWB. Ecology is adding a requirement to report barrels of crude oil and intermediate products beginning with the 2022 reporting year. All five refineries currently report this information as part of existing 40 CFR Part 98 Subpart Y reports. We are also moving the facility level Subpart MM reporting requirement to this section, also beginning with emissions year 2022 (see the response to “Reporter Classification” for more information). Together, these three production metrics facilitate short term and long term analysis and options for Chapter 173-446 WAC with minimal additional reporting burden. We added the following to the production metric column for petroleum refineries in Table 050-1:

“Report all of the following:

- Facility level Subpart MM report as reported under 40 CFR Part 98,
 - Barrels of crude oil and intermediate products received from off site that are processed at the facility, and
 - Beginning with the first emissions year after a refinery’s first turnaround after 2022, the refinery must also submit complexity weighted barrel (CWB) as described in CARB MRR section 95113(1)(3) as adopted by 7/1/2021. CWB supporting data must also be submitted to Ecology as described in CARB MRR section 95113(1)(3).”
- Using a product data metric of net megawatts hours for waste-to-energy entities is consistent with the classification as an electric facility by EPA and the Clean Energy Transformation Act (Chapter 173-444 WAC). Ecology is not changing the rule due to these comments.

Comment to remove NAICS code 562111 from Table 050-1: NAICS codes contained in Table 050-1 have been reported as primary NAICS codes by reporters. NAICS code 562111 has been reported as a primary NAICS code in the program since 2012. Additional NAICS codes in the table do not create any new requirements. Ecology is not changing the rule due to these comments.

Comment to change “product data” to “production data”: For most facilities, the applicable product data metric in Table 050-1 corresponds to production. However, in some cases, production is not an applicable metric. The metric proposed in these cases is not encompassed by the term “total annual facility production.” Ecology is not changing the rule due to these comments.

Comment on co-located facilities: Facilities already have the option to report a primary NAICS code, as well as secondary NAICS codes, using the EPA’s electronic GHG reporting tool (e-GGRT). A facility, including a co-located facility, can report multiple NAICS codes if applicable. We modified the rule text to clarify that total annual product data may be reported for secondary NAICS codes: “Facilities may additionally report

total annual facility product data as described in Table 050-1 for any reported secondary NAICS code.”

Comments on Facility electricity use or generation

Commenter: City of Spokane (comment OTH-2-6)

Summary: Provide more clarity on the requirement to report self-generated electricity in subsection 050(3)(l). Does this mean self-generated electricity used onsite, sold offsite, or both?

Response to Facility electricity use or generation

Thank you for your comments. Ecology agrees that the “self-generated electricity should be itemized separately” requirement needs more clarification. We are adding more detail to describe what needs to be itemized. We modified subsection 050(3)(l)(ii) to include:

- (ii) Self-generated electricity should be itemized separately if a facility includes an electricity generating unit as follows:
 - (A) Total facility nameplate generating capacity in megawatts (MW).
 - (B) Generated electricity in MWh provided or sold to each retail provider, electricity marketer, or other reportable end-user that is not a part of the facility, itemized by end-user.
 - (C) Generated Electricity For On-Site Industrial Applications Not Related to Electricity Generation in MWh.

Comments on Reporter affiliations

Commenters: City of Spokane (comment OTH-2-5), NW Pulp & Paper Association (comment O-1-5)

Summary: The requirement to describe any affiliation with other reporters needs to be clarified or removed. It is difficult to understand and presents confidentiality concerns.

Response to Reporter affiliations

Thank you for your comments. Ecology agrees this requirement lacks clarity and could be difficult to report. In response to these comments, we are removing the requirement from this rule. Chapter 173-446 WAC may include a similar requirement. If so, it will include more clarity. We modified subsection 050(3)(j) to remove: “Also describe any direct or indirect affiliation with other reporters.”

Comments on Record retention

Commenters: King County Solid Waste Division (comment A-2-3), Robert Sappington (comment I-1-1), NW Pulp & Paper Association (comment O-1-8), WSPA and Phillips 66 (comment O-2-11)

Summary: Record retention should be five years, do not expand to ten years as written. The requirement is inconsistent and remains three years in some places.

Response to Record retention

Thank you for your comments. Ecology agrees the record retention period should be consistent throughout the rule.

A record retention requirement of ten years supports linkage with other jurisdictions and enables records to be retained for both the current and previous compliance period under the CCA. A five year record retention would not be sufficient to cover the previous four-year compliance period once a new compliance period begins.

Ecology modified section 050(7)(e) in response to these comments: “The owner or operator must retain documentation for ten years to support any revision....”

Comments on Missing data and calibration requirements

Commenters: bp America, Inc. (comment B-3-3), City of Spokane (comment OTH-2-4), Phillips 66 (comment B-5-4), WSPA (comment O-2-4)

Summary: New missing data and calibration requirements are difficult to implement, need clarification, and are inconsistent with EPA and California. This could make submitting a single report to Washington and EPA difficult. Reporting should be based on available data.

Response to Missing data and calibration requirements

Thank you for your comments. Ecology has removed the missing data requirements based on data capture rate from this rulemaking. Ecology will consider these requirements in future rulemakings to allow time to refine the requirements and ensure consistency with EPA 40 CFR Part 98.

Subsection 050(8)(a) requires “other measurement devices” for emissions and product data to be calibrated to an appropriate error range for the applicable operating standard, such as manufacturer specifications or industry standards. This is more flexible than the California Air Resources Board (CARB) MRR 95103(k) provisions that require other measurement devices to be calibrated according to manufacturer’s specifications or using a method within 40 CFR Part 98.

Subsection 050(8)(h) has been modified to remove (i)(A-C), the missing data requirements based on data capture for Subparts C, H, P, Y, and AA. To simplify and account for potential conflicts with 40 CFR Part 98, the missing data requirements for product data have been incorporated into section 050(8)(h) and changed to “Substitute missing data used for product data or other data required under this section that is not included in your 40 CFR Part 98 report by using the best available estimate of the parameter, based on all available data.” The “all available data” requirement is consistent with other jurisdictions and corresponds to the available data that could reasonably be used to produce the “best available estimate.”

Comments on Narrative description of emissions changes and monitoring plan

Commenters: Avista Utilities (comment B-6-3), WSPA and Phillips 66 (comment O-2-14)

Summary: Descriptions of emissions changes should be triggered by a change of 10%, not 5%.

The monitoring plan should have the same timing requirements as other rule provisions.

Response to Narrative description of emissions changes and monitoring plan

Thank you for your comments. The requirement to provide a narrative for emissions changes greater than 5% is consistent with other jurisdictions, and Ecology believes that a narrative describing emissions changes of greater than 10% would not be adequate to capture the granularity of emissions in many sectors. For those reporters whose emissions more frequently differ by 5%, a brief narrative explaining the change will not add undue burden and will provide Ecology with additional insight into the normal emissions of the facility. Ecology has already been requesting this information via follow-up emails using our existing authority.

Ecology agrees the monitoring plan should have the same timing requirements for record requests as other rule provisions and has adjusted the rule language as indicated below.

WAC 173-441-050(6)(e)(iv) has been modified to read "...within 15 business days of receipt of the notification, unless a different schedule is agreed to by Ecology."

Comments on Method change requirements

Commenter: NW Pulp & Paper Association (comment O-1-7)

Summary: Describe how new requirements restricting methodology changes work and how the requirements relate to petitioning to use alternate methods in section 140.

Response to Method change requirements

Thank you for your comments. While 40 CFR Part 98 allows for a choice in calculation methodology in some cases, there can be differences in calculated values between various calculation methods. The new requirement restricting methodology changes establishes consistency in reporting years, so that emissions increases or reductions will be indicative of actual changes to a reporter's emissions rather than changes in accuracy or calculation methodology. A change from one Tier calculation methodology to another Tiered method within Subpart C is an example of a methodology change that would trigger WAC 173-441-050(4) obligations. The 45-day approval timeline outlined in the rule allows Ecology time to gather more information and assess the impact the change would have to emissions calculations. Nothing prohibits reporters from submitting notification of a methodology change to Ecology well ahead of the 60-day requirement before report submittal, to allow for additional time to complete the report.

Section 140 is an existing section with no substantive changes in this rulemaking. This section is only used to update existing methods that are adopted by reference, usually because EPA updated 40 CFR Part 98. It allows reporters to request an updated calculation method compared to older existing methods and has limitations such as having to be a more recent version of an already approved EPA protocol. It is also due 180 days before report submittal with Ecology review complete within 60 days, well before the deadline in subsection 050(4). Nothing prohibits a reporter from requesting a method change under both provisions, but due to their different timing, purposes, and requirements they are not in conflict.

Electric power entities

Comments on Electricity transactions within Bonneville Power Administration's (BPA's) balancing authority

Commenters: Bonneville Power Administration (comments A-3-2 and A-4-1), Western Power Trading Forum and Shell Energy North America (comment O-5-8)

Summary: Allow electricity procured from asset controlling suppliers to be claimed when the relevant electricity transaction does not have an e-tag associated with it, as is typical within BPA's own balancing authority.

Response to Electricity transactions within BPA's balancing authority

Thank you for your comments. Language has been added to clearly allow for situations where e-tags are not used.

Comments on Unspecified emissions factor

Commenters: Bonneville Power Administration (comments A-3-6 and A-4-2), Puget Sound Energy (comment B-7-8), Shell Energy North America (comment B-2-5)

Summary: Numerous commenters would prefer direct reference to the CARB unspecified emissions factor (0.428 MT CO₂e) and CARB transmission loss factor (1.02) rather than the current link to the Clean Energy Transformation Act's (CETA's) unspecified emissions factor – which combines the same CARB emission factor and the CARB transmission loss factor to form a combined emissions factor (0.437 MT CO₂e).

Response to Unspecified emissions factor

Thank you for your comments. Given the CCA's focus on CETA as the foundation for driving emission reductions in the electricity sector, Ecology maintains that it is logical to ensure consistency with CETA in using the same unspecified electricity emission factor. Moreover, by linking these rules to CETA's rules, that consistency is guaranteed in the future as any changes to the CETA factor will be reflected in the greenhouse gas reporting program, and these major electricity GHG programs will remain consistent.

Ecology is not changing the rule due to these comments.

Comments on Wheeled electricity

Commenters: Bonneville Power Administration (comment A-3-7), Western Power Trading Forum and Shell Energy North America (comment O-5-11)

Summary: Numerous commenters noted that, while acknowledging that CARB does require the reporting of wheeled electricity through California, the situation in Washington both complicates that reporting and may make such reporting of little value.

Response to Wheeled electricity

Thank you for your comments. References to wheeled power have been removed for this rulemaking, although Ecology may revisit the issue in the future if it becomes apparent that the information is valuable for other reasons.

Comments on References to asset controlling supplier

Commenters: Bonneville Power Administration (comment A-3-8), City of Spokane (comment OTH-2-11)

Summary: Several references to, and a definition for, asset controlling suppliers were missing or erroneous.

Response to References to asset controlling supplier

Thank you for your comments. Language has been fixed to remedy this situation, including adding a definition for asset controlling supplier.

Comments on Multi-jurisdictional retail provider emissions formula

Commenters: PacifiCorp (comment B-9-2)

Summary: The formula for multi-jurisdictional retail providers had a typo, and was incomplete for its intended purpose.

Response to Multi-jurisdictional retail provider emissions formula

Thank you for your comments. The noted typo has been fixed, and Ecology agrees that one of the terms was incomplete. However, two of the terms requested to be included (resulting in in-state emissions) appear to conflict and double-count emissions already reported through the facility reporting, and therefore were not included. One term in the equation, and the noted typo were addressed in the rule text.

Comments on Interstate and international carbon pricing agreements

Commenters: Powerex Corp. (comment B-10-4), Western Power Trading Forum and Shell Energy North America (comment O-5-1)

Summary: Several commenters request that the reporting rules be implemented in a manner that allows importers of electricity to account for GHG regulations in other states or provinces and report zero emissions for electricity that is imported under those conditions.

Response to Interstate and international carbon pricing agreements

Thank you for your comments. Decisions about crediting for GHG programs in other states or countries is an issue for the Chapter 173-446 WAC rulemaking, the main cap and invest program rule. The role of the GHG reporting rule is to ensure that supporting information for such decisions is captured, and not to infer or direct policy decisions on how that data should be treated in the broad context of the cap and invest system.

Ecology is not changing the rule due to these comments.

Comments on Definitions

Commenters: City of Spokane (OTH-2-2), Western Power Trading Forum, Seattle City Light, and Shell Energy North America (comment O-5-10)

Summary: Commenters requested definitions for terms that were not defined, and requested that definitions not used in the main text be deleted.

Response to Definitions

Definitions for direct delivery of electricity, electricity generating facility, and generation providing entity were all added. Clarity was added to specify that electric generation facilities in Washington continue to report as facilities.

Definitions for electricity generation provider, energy imbalance market purchaser, electricity wheeled through Washington, importer of record, and particular end user were all removed.

Comments on Terminology for emission sources

Commenters: Joint Utilities (comment OTH-1-2), Public Generating Pool and Seattle City Light (comment O-9-3), Tacoma Power (comment O-6-1)

Summary: The terminology “electric power entity source category” was noted as being confusing, particularly relative to the designated emission calculations which imply differing emissions source categories (specified power, unspecified power, and so forth).

Response to Terminology for emission sources

Thank you for your comment. Ecology agrees the word “source” in that context for electric power entities is unnecessary. The word “source” was removed in two places in subsection (1) in WAC 173-441-124.

Comments on Multi-jurisdictional entities

Commenters: Joint Utilities (comment OTH-1-4), Powerex Corp. (comment B-10-1), Shell Energy North America (comment B-2-4), Western Power Trading Forum (comment O-5-5)

Summary: Concerns were raised about how multi-jurisdictional retail providers and asset controlling suppliers (especially BPA) interact with the rules given that their load footprints extend beyond Washington.

Response to Multi-jurisdictional entities

Thank you for your comments. Numerous commenters requested that the rules be substantially rewritten and reorganized, and entirely replaced in some sections with recommended text and formulas. Given the timeline mandated by the legislature that level of change is not feasible for this rulemaking, but some surgical changes were made in the rule language and these suggestions will be considered for future rulemakings.

Comments on Energy imbalance market

Commenters: Bonneville Power Administration (comments A-3-5 and A-4-3), Joint Utilities (comment OTH-1-3), PacifiCorp (comment B-9-3), Powerex Corp. (comment B-10-3), Puget Sound Energy (comment B-7-2), Seattle City Light (comment O-3-3), Tacoma Power (comment O-6-4), Western Power Trading Forum and Shell Energy North America (comment O-5-7)

Summary: Numerous commenters requested that language around the Energy Imbalance Market (EIM) be struck entirely, while others wanted the language to be expanded or refined. Some commenters indicated they supported an interim approach of treating EIM power as unspecified power, while others wanted it to be ignored until a future time. Some also suggested various means to address EIM power through the cap and invest program rule (Chapter 173-446 WAC).

Response to Energy imbalance market

Thank you for your comments. The CCA requires Ecology to address the reporting of EIM power transactions through rulemaking by 2026, but not before that time. As requested by stakeholders, Ecology did reach out to the EIM program managers (the California ISO) and confirmed, as noted by stakeholders, that it is not currently possible for Washington-specific EIM power flows to be assigned to individual entities from their computer system due to technical reasons. At the same time, Ecology does not accept the argument that a certain proportion of electricity (even if a small amount) should be ignored by the reporting program until a later date. Ecology proposed the concept of treating EIM power as unspecified power until such time that the EIM is technically capable of providing the necessary information and that stakeholders and Ecology have the necessary time to work out the numerous other details required. Ecology continues to believe this is the best interim approach, while fully acknowledging that a more extensive discussion on the treatment of EIM power in the reporting program is necessary in the future (as the law requires). Ecology also notes that this course would be the default pathway regardless, since unspecified power is by definition power that cannot be traced back to a specific facility or defined source category. If EIM power is not treated directly in the rule language, that electric energy would revert to being classified as unspecified power. By continuing to have the option of having reporters report power sourced from the EIM where it is clearly from that source, Ecology can begin the process of understanding this power category for future rulemakings.

Ecology is not changing the proposed approach to EIM electricity reporting due to these comments, but has made changes to terminology (which have already been noted in prior responses) to clarify how EIM power that is reported should be treated. In addition, terminology and concepts that are extraneous to the proposed interim approach for treating EIM power have been eliminated, as noted in prior responses.

Comments on Threshold for EPE reporting

Commenters: Puget Sound Energy (comment B-7-7), Western Power Trading Forum, Seattle City Light, and Shell Energy North America (comment O-5-6)

Summary: There should be no reporting threshold for EPEs. All electricity emissions should be reported.

Response to Threshold for EPE reporting

Thank you for your comments. RCW 70A.15.2200 (5)(a) established a reporting threshold of 10,000 MT CO₂e for all reporters, including electric power entities. Ecology cannot alter the statutory threshold in this regulation. In addition, suggestions that requirements in the CCA statute, Chapter 70A.65 RCW, override the greenhouse gas reporting statute are not supported. The CCA statute guides the CCA; the reporting statute guides the reporting program.

Suppliers

Comments on Natural gas

Commenters: Avista Utilities (comment B-6-5), Cascade Natural Gas Corporation (comment B-11-1), King County Solid Waste Division (comment A-2-2), NW Natural (comment B-4-3), Puget Sound Energy (comment B-7-3)

Summary: Require biogenic and renewable reporting consistent with the definition section in 020. Including biogenic CO₂, methane, and nitrous oxide means EPA's eGGRT will not work; Ecology should develop a reporting spreadsheet instead. Ecology will also need to provide a list of large reporters as the suppliers will not know their reporting status. Landfill gas supplied to another facility that processes it and adds it to the distribution system should not trigger supplier reporting for the landfill.

Response to Natural gas

Thank you for your comments. Ecology is currently developing a reporting spreadsheet to facilitate reporting by natural gas suppliers under section 122(4). Ecology will make the reporting spreadsheet available to suppliers prior to the March 31, 2022 reporting deadline. Ecology will also integrate a list of large reporters into the calculation spreadsheet to facilitate supplier reporting.

Ecology believes it is clear from the definitions of supplier source categories in section 122(1)(a) that a landfill supplying landfill gas to another facility as described in the comments would not be categorized as a supplier.

The definition of supplier in subsection 020(1) restricts supplier reporting to “fuel products” which is also defined as limited to products described in Subparts LL through NN. In response to stakeholder feedback during the rule proposal phase and to provide flexibility for future renewable and biogenic fuels, text was added to section 122 that requires reporting of any renewable or biogenic version of a product listed in 40 CFR Part 98 Table MM-1, in addition to biomass-derived fuels listed in 40 CFR Part 98 Table MM-2. This additional text is consistent with the definition of fuel product in section 020(1)(h). However, we modified the rule text to clarify and avoid confusion:

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

Comments on Other fuels

Commenters: Phillips 66 (comment B-12-1), PPGA (comment O-7-3), WSPA (comment O-2-17)

Summary: Require biogenic and renewable reporting consistent with the definition section in 020. Including reporting for CCA exempt fuels is good. This rule uses the appropriate California based point of regulation for fuels.

Response to Other fuels

Thank you for your comments. The definition of supplier in subsection 020(1) restricts supplier reporting to “fuel products” which is also defined as limited to products described in Subparts LL through NN. In response to stakeholder feedback during the rule proposal phase and to provide flexibility for future renewable and biogenic fuels, text was added to section 122 that requires reporting of any renewable or biogenic version of a product listed in 40 CFR Part 98 Table MM-1, in addition to biomass-derived fuels listed in 40 CFR Part 98 Table MM-2. This additional text is consistent with the definition of fuel product in section 020(1)(h). However, we modified the rule text to clarify to avoid confusion:

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

Comments on Clarifications

Commenters: Michael Ruby (comment I-10-2)

Summary: There appears to be a grammatical error in WAC 173-441-122(2)(1), where it states that "For the purposes of this chapter, . . . are subject to reporting under this chapter." The same

problem occurs in -122(2)(m), where it states "for the purposes of this chapter." Should this reference the section instead of chapter?

Response to Clarifications

Thank you for your comments. Ecology has made the following clarifications to the rule text. The meaning of the text remains unchanged. The following sentence in WAC 173-441-122(2)(l) was updated to: "Only intrastate pipeline operators that physically deliver gas to end users in Washington are subject to reporting under this chapter."

WAC 173-441-122-(2)(m) was updated to: "'Local distribution company" or "LDC," for purposes of Chapter 173-441 WAC, means a company that owns or operates distribution pipelines, not interstate pipelines, that physically deliver natural gas to end users and includes public utility gas corporations, publicly owned natural gas utilities and intrastate pipelines that are delivering natural gas to end users."

Verification

Comments on Third-party verification

Commenters: Bonneville Power Administration (comment A-3-4), Hammerschlag LLC (comment B-1-1), Iris Antman (comment I-9-1), Nancy Hansen (comment I-13-2), NW Pulp & Paper Association (comment O-1-2), Phillips 66 (comment B-5-1), Puget Sound Energy (comment B-7-5), Seattle City Light (comment O-3-2), U.S. Department of Energy (comment A-3-4), WaferTech LLC (comment B-8-1), Western Power Trading Forum and Shell Energy North America (comment O-5-3), WSPA (comment O-2-5)

Summary: Most comments supported third-party verification, one was opposed. Some favored phasing the requirement in or making it only apply to emissions covered by the CCA. One commenter suggested a lower threshold of 20,000 MT CO₂e.

Ecology should monitor the number of available verifiers, conduct regular trainings, and publish a list of approved bodies. Most thought relying on California precertification was good, but one commenter requested adding ISO verifiers.

The verification cycle should follow four and eight year patterns like the CCA, not California's three and six year cycle. Others requested California consistency to support linkage. Some requested relaxing or removing conflict of interest provisions such as length of relationship between the reporter and verifier or allowing verifiers that also work with the reporter in other states.

Clarify verification requirements. When do third-party verification requirements begin? Is full verification the same as less intensive verification except it adds a site visit? When can verification or contracts end when a facility leaves the program? Commenters also wanted to wait until verification was complete before resubmitting their report or require the verification body produce their report four weeks before the verification deadline.

One commenter suggested that Ecology underestimated verification costs for pulp and paper facilities.

Response to Third-party verification

Thank you for your comments. Third-party verification has become the standard for GHG reduction programs similar to the CCA. Ecology proposed this approach to ensure high quality reports, keep reporting costs low, help protect confidential business information, and facilitate potential linkage to other programs.

RCW 70A.15.2200 does not explicitly specify third-party verification. Section (5)(g) does require Ecology to establish by rule the methods of verifying the accuracy of emissions reports. Section (5)(g)(ii) explicitly states these requirements apply to reporters covered by the CCA or that equal or exceed 25,000 metric tons of carbon dioxide equivalent emissions, including carbon dioxide from biomass-derived fuels. Ecology followed this legislative directive when setting the third-party verification threshold in section 085.

“Verification requirements apply at a minimum to persons required to report under (a) of this subsection with emissions that equal or exceed 25,000 metric tons of carbon dioxide equivalent emissions, including carbon dioxide from biomass-derived fuels, or to persons who have a compliance obligation under RCW 70A.65.080 in any year of the current compliance period.”

Ecology will conduct verifier training and certification events once this rule is final. Approved verification bodies will be posted on our website. We will continue to monitor the supply of verifiers and make adjustments to the program as necessary. Ecology previously conducted third-party verifier certifications as part of the no longer in effect Clean Air Rule (Chapter 173-442 WAC) and has reason to expect sufficient supply based on that experience. Relying on California certification as a precertification step speeds up the process, improves quality, and helps with potential future linkage. We are not including ISO precertification at this time as that program is less similar to this chapter than California’s program. Nothing prevents an ISO certified verifier from also becoming certified in California and Washington.

Many GHG reduction programs similar to Washington’s CCA use a three year compliance cycle. The CCA uses a four year cycle. Third-party verification requirements are the only part of this regulation directly impacted by that cycle as the verification cycle typically parallels the compliance cycle. Ecology weighed the benefits and drawbacks of following a three or four year cycle for verification before deciding on keeping the standard three year cycle. A four year cycle is simpler for an unlinked program and can reduce reporter costs. A three year cycle facilitates linkage, supports multi-jurisdictional contracts, and significantly improves verification quality through more frequent site visits and reducing conflict of interest.

Limiting the number of years a reporter and verification body can work together is an important and standard component of third-party verifier programs. It is a critical component of the conflict of interest provisions that help maintain the independent status of the verifier. It also helps provide a fresh set of eyes looking at the reports on a predictable cycle.

Section 085(7)(c)(ii) of Ecology’s proposed text already allows a reporter to use the same verifier for GHG reports in Washington and other jurisdictions.

“Any employee of the third-party verifier, or any employee of a related entity, or a subcontractor who is a member of the verification team has provided to the reporter any services within the previous five years, unless the service was part of GHG verification for another jurisdiction. Any years of previous service in the other jurisdiction count towards the limit in (b) of this subsection.”

The commenter is correct: full verification has the same requirements as less intensive verification except that it also includes a site visit. This is consistent with other jurisdictions.

Verification requirements are on a reporting year basis and do not cover partial years. Any reporter that falls below verification standards described in section 085(1) would need to have the entire annual report verified. Contracts are between the verifier and reporter, but verification services would need to cover the entire report.

The requirement to resubmit a report within 45 days of discovery of an error from section 050(7) is not modified by section 085. The only additional requirement is to have any revisions complete by the August 10th verification deadline. There are no penalties or direct reporting costs to the reporter to submit multiple reports, only the extra time to revise and submit the report. Those costs are minimal compared to overall verification costs and offset by the increased communication and improved early feedback from Ecology that can be achieved by submitting revisions within the standard 45 day period. This reduces the reporter’s risk of being out of compliance with the rule as all revisions must be 100% complete by August 10th to facilitate CCA implementation. One commenter suggested requiring the verifier to finalize its findings four weeks before the verification deadline. Ecology is not making this change, but nothing prevents a reporter from stipulating intermediate deadlines in their contract with the verifier.

Third-party verification requirements in section 085 already contain an explicit start date of 2023 emissions reported in 2024, but we added more language to that section for clarity and consistency. Ecology intends to conduct agency verification on 2022 reports, including those for suppliers and EPEs, and will require revisions under section 050(7) for that information if needed. That process is critical for making sure 2023 reports are ready for supporting the CCA.

Thank you for your comment regarding verification costs for pulp and paper mills. In their Verification Review, Massachusetts further investigated the estimated cost range from their technical support document (TSD) with a survey of reporters, which offered options for response costs between \$0 and greater than \$29,293 (in current dollars) per facility. The majority (48%) of respondents indicated a range of \$5,860 to \$11,717, with 30% reporting costs below this range, and 20% reporting costs above this range (totals do not add to 100% due to rounding). When accounting for facility size and emissions, 67% of facilities emitting at least 25,000 MTCO_{2e} reported verification costs between \$5,860 and \$11,717, with 21% reporting costs below this range, and 12% above with 4%

reporting costs above \$29,000. While one might expect facility size or emissions to correlate with verification complexity and cost, Massachusetts found that the highest weighted average costs (\$13,592) are likely to be incurred by reporters emitting between 10,000 and 25,000 MTCO_{2e}. This also indicates a high degree of variability across reporters, regardless of size, consistent with the commenter's indication that reporter complexity is a factor. This makes it difficult to confidently assign likely specific verification costs by individual reporter. We acknowledge that while median values are intended to reflect typical costs across all likely reporters given the full range of sample costs in the Massachusetts TSD discussed in the Verification Review, there is likely high variability across reporters, and some reporters may incur higher or lower costs than the values used to reflect median costs across all types of reporter and verification complexity.

Ecology is making the following change to the rule in response to these comments:

Section 085 has been modified to include: "reported in 2024"...

Linkage

Comments on Program linkage

Commenters: Avista Utilities (B-6-2), Cascade Natural Gas Corporation (comment B-11-2), EarthJustice (comment O-8-2), Joint Utilities (comment OTH-1-1), Nancy Hansen (comment I-13-4), Puget Sound Energy (comment B-7-1), Seattle City Light (comment O-3-1), Shell Energy North America (comment B-2-1), Western Power Trading Forum (comment O-5-4)

Summary: Most commenters expressed support for a program that could lead to linkage. One commenter noted that linkage is less important than using update global warming potentials.

Response to Program linkage

Thank you for your comments. Ecology agrees that this rule should support the potential for eventual program linkage. The rule was constructed with the goal of facilitating linkage within the limitations of timelines and requirements established in Chapter 70A.65 RCW and RCW 70A.15.2200. Global warming potentials are addressed in the response to fugitive emissions and methane leaks, and the potential for linkage was considered in making that decision.

Ecology is not changing the rule due to these comments.

Administrative

Comments on Effective date

Commenters: King County Solid Waste Division (comment A-2-4), Phillips 66 (comments B-5-3 and B-12-4), PPGA (comment O-7-1), Public Generating Pool (comment O-9-2), Seattle City Light (comment O-3-4), Shell Energy North America (comment B-2-2), Tacoma Power (comment O-6-3), Western Power Trading Forum (comment O-5-2), WSPA (comment O-2-1)

Summary: Many commenters requested clarification of when new reporting requirements would take effect. Many supported beginning with 2022 emissions reported in 2023, some requested 2023 emissions reported in 2024. Phasing in enforcement and allowing alternate methods for 2022 emissions was also suggested.

Response to Effective date

Thank you for your comments. Ecology agrees that more clarity is needed.

We agree with the commenters suggesting starting new requirements with 2022 emissions reported in 2023. There are no substantive changes to this regulation since publication on October 6, 2021 or the draft released on July 15, 2021. Also, the rule will be formally adopted early in the year on February 9, 2022. Requirements are consistent with those already established in other jurisdictions. Some reporters will need to submit this new information to Ecology as early as March 2022 in order to receive no costs allowances under the CCA. It is also important to get reports in for these new sectors as soon as possible so that both the reporters and Ecology can work through any issues before the start of CCA compliance years with 2023 emissions reported in 2024.

Ecology also understands that these reporting requirements will be new to many reporters, particularly suppliers and EPEs. Ecology is implementing the suggestion of phasing in enforcement for one year to allow reporters to build reporting tools on their end and for reporters and Ecology to work together to improve report quality. We are not expanding alternative methods or removing any other requirements for emissions year 2022. Agency verification will remain in place, Ecology may continue to enforce on requirements in the rule as it exists before this rulemaking, and Ecology may penalize a new supplier or EPE for not submitting a report. The only change is Ecology will not issue a penalty for incorrectly reporting new data elements for one year. 2022 emissions reported in 2023 are not part of the 2015-2019 CCA baseline period and are not part of a CCA compliance period, which begins with 2023 emissions reported in 2024.

Third-party verification requirements in section 085 already contain an explicit start date of 2023 emissions reported in 2024, but we added more language to that section for clarity and consistency. Ecology intends to conduct agency verification on 2022 reports, including those for suppliers and EPEs, and will require revisions under section 050(7) for that information if needed. That process is critical for making sure 2023 reports are ready for supporting the CCA.

Ecology is making the following changes to the rule in response to these comments:

Section 030(2) has been modified to start with: “Beginning with the 2022 emissions year reported in 2023”...

Section 030(3) has been modified to start with: “Beginning with the 2022 emissions year reported in 2023”...

Section 085 has been modified to include: “reported in 2024”...

Section 090 has been modified to include:

“(3) Phased enforcement for some reporting elements for the 2022 emissions year. Ecology is phasing in enforcement for nonconformance with new reporting requirements, including WAC 173-441-122 and WAC 173-441-124, adopted February 9, 2022 during the 2022 emissions year reported in 2023 as follows.

(a) Ecology may issue violations under subsection (1) of this section for any nonconformance with new reporting requirements, including WAC 173-441-122 and WAC 173-441-124, adopted February 9, 2022 during the 2022 emissions year reported in 2023. However, Ecology will not issue monetary penalties under this section, except for failure to comply with the requirement to submit a complete report by the reporting deadline, for this period. All other provisions of this chapter apply during this period.

(b) New reporting requirements, including WAC 173-441-122 and WAC 173-441-124, adopted February 9, 2022 are fully subject to compliance and enforcement provisions of this section, including potential monetary penalties for violations, beginning with the 2023 emissions year reported in 2024.”

Comments on Reporting deadline

Commenters: Shell Energy North America (comment B-2-3), WSPA (comment O-2-12), Seattle City Light (comment O-3-5), Phillips 66 (comment B-5-2), Avista Utilities (comment B-6-4), Tacoma Power (comment O-6-2), Bonneville Power Administration (comment A-3-1), Public Generating Pool (comment O-9-1), Puget Sound Energy (comment B-7-4), PacifiCorp (comment B-9-1)

Summary: EPEs were generally supportive of the June 1st deadline for the final report. Most would prefer removal of the March 31st report deadline. Some acknowledge the deadline is set in statute, others argue the statute is unclear. More clarity is needed if both deadlines remain.

Some facilities requested an April 10th deadline. This request was associated with reporting complexity weighted barrels by petroleum refineries.

The August 10th verification deadline has general support.

Response to Reporting deadline

Thank you for your comments. Ecology has heard the EPEs’ concerns about the March 31st reporting deadline. We understand the need for electricity importers to have more time to report.

RCW 70A.15.2200(5)(a)(ii) establishes the reporting deadline for the program.

“Each annual report must include emissions data for the preceding calendar year and must be submitted to the department by March 31st of the year in which the report is due.”

Ecology cannot write a regulation that conflicts with statute. That is why we added language to Section 050(2)(a)(i) of the proposed draft that explicitly states:

“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.”

The proposed rule text allows an EPE to remain in compliance with the statute and rule by submitting a report based on available information by March 31st and a revised final report by the requested June 1st date. The March report must include at least the following: an estimate of GHG emissions and MWh, and be signed and submitted by the EPE’s designated representative or alternate designated representative. The EPE and Ecology would both be aware that revisions would be required as specified by section 050(7), but those revisions would not be due until the June 1st deadline instead of by the normal 45 day requirement. A complete signed report fully in compliance with this chapter would be due by June 1st. Ecology would not enforce, publish, or conduct detailed analysis of the EPE’s report until after the June 1st deadline. Ecology will continue to work with EPEs to make this process as clear as possible, perhaps including specifics in our EPE reporting tool.

Facilities have been reporting their GHG emissions under this chapter to Washington by March 31st since emissions year 2012. Many are also subject to EPA’s 40 CFR Part 98 reporting program, which uses the same deadline and report. Some facilities previously reported to Washington by October 31st, but those facilities generally have simpler reports than those that have been successfully reporting by March 31st. The concerns about the March deadline for facilities seem to focus on new reporting requirements for petroleum refineries, specifically the new requirement for complexity weighted barrel. Ecology believes the refineries can still meet the March deadline even with the small increase in reported information. Ecology is phasing the requirement for complexity weighted barrel for reasons described in other responses, further reducing the need for an extended deadline.

Ecology appreciates feedback that changing the 3rd party verification deadline to August 10th is acceptable.

Ecology is not changing the rule due to these comments.

Comments on Reporter classification

Commenters: NW Pulp & Paper Association (comment O-1-4), WSPA and Phillips 66 (comment O-2-13)

Summary: One commenter asked how GHG emissions from the pulp and paper sector would be reported—as a facility, supplier, EPE, or a combination. Another asked how refinery reporting of production information related to how they report as a supplier. Also, how to allocate emissions from co-located facilities for both reporting and the CCA.

Response to Reporter classification

Thank you for your comments. A pulp and paper facility would not need to report hog fuel or most other biomass as a supplier. The definition of supplier in subsection 020(1) restricts supplier reporting to “fuel products” which is also defined as limited to products described in Subparts LL through NN. Hog fuel is a wood product and wood products are not covered in Subparts LL through NN or Tables MM-1, MM-2 or NN-1. Therefore, hog fuel suppliers are not suppliers subject to this regulation. If a company owns or operates a pulp and paper facility and also supplies an included fuel product, such as gasoline or biodiesel, then that owner or operator would report the pulp and paper facility separately from any activities as a supplier. Ecology is adding clarifying language to the definition of fuel supplier to avoid confusion. See the response to “Other Fuels” for more information.

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

Any facility supplying carbon dioxide to another organization would report that transfer using the existing Subpart PP methods as part of their facility report. Typically, the supplied carbon dioxide is subtracted from the facility’s reported GHG emissions. The other organization may or may not need to report as a supplier of carbon dioxide depending on their operations. Chapter 173-446 WAC will describe who is responsible for those emissions under the CCA, which may be different than reported emissions. We encourage you to comment during that rulemaking.

Ecology has clarified the requirements for facilities that generate electricity in Washington. Those facilities would need to submit information about the electricity produced and used onsite consistent with subsection 050(1). They would also be an electric power entity under this chapter, however as long as they are a single facility and do not otherwise import electricity, their requirements would be met by submitting their existing facility report with the additional data elements described in section 050. It is possible a pulp and paper company may need to report as a facility, supplier, and electric power entity, but we anticipate that most or all will just submit a facility report with a single third-party verification report. If the organization qualifies as more than one reporter, then each facility, supplier, or EPE that exceeds the verification threshold would need to separately complete third-party verification.

Ecology agrees that the requirement for petroleum refineries to submit their facility Subpart MM report is confusing. Those emissions are supplemental to the facility’s emissions and reflect facility production. The facility level Subpart MM report provides useful information, is already required by EPA for petroleum refineries so does not add reporting costs, and all five Washington petroleum refineries already have complete CBI determinations for information contained in Subpart MM.

The facility level Subpart MM report does not count towards the refinery’s facility emissions. It is not part of their supplier report, so also does not count as supplier emissions. Supplier reporting parallels the Subpart MM report, but has different reporting requirements (most importantly the point of regulation) that are outlined in section 122.

Ecology is moving the requirement to submit the existing facility level Subpart MM report for petroleum refineries from section 120 that describes facility reporting to subsection 050(n), the section containing information on supplemental product data reporting. Other corresponding references are also updated. This does not change requirements from the proposed rule, but should make it clearer that the facility level Subpart MM report is used to document facility product data instead of double counting GHG emissions.

Co-located facilities will continue to report based on the definition of facility in section 020 as modified by section 120. Obligations between co-located facilities under Chapter 173-446 WAC will be addressed in that rulemaking.

Ecology is making the following changes to the rule in response to these comments:

Added “suppliers of fuel products” clarification to “fuel supplier” definition in 020(1)(i).

Moved facility Subpart MM reporting from section 120 to Table 050-1.

“Report all of the following:

- Facility level Subpart MM report as reported under 40 CFR Part 98,
- Barrels of crude oil and intermediate products received from off site that are processed at the facility, and
- Beginning with the first emissions year after a refinery’s first turnaround after 2022, the refinery must also submit complexity weighted barrel (CWB) as described in CARB MRR section 95113(1)(3) as adopted by 7/1/2021. CWB supporting data must also be submitted to Ecology as described in CARB MRR section 95113(1)(3).”

Comments on Referencing Chapters 173-446 and 173-446A WAC

Commenters: City of Spokane (comment OTH-2-1), NW Pulp & Paper Association (comment O-1-1)

Summary: This rule should not, or cannot, reference Chapters 173-446 and 173-446A WAC as those rules have not yet been adopted.

Response to Referencing Chapters 173-446 and 173-446A WAC

Thank you for your comments. Chapter 173-441 WAC attempts to limit references to CCA rules still in development. However, references are sometimes needed and are provided for clarity both during rulemaking and to support long term implementation.

The CR-101 announcement for all three rules clearly indicated that the rules are linked. A complete draft of Chapter 173-446A WAC was made public during this rule's comment period. Ecology had also begun the public process for Chapter 173-446 WAC before the end of this rule's comment period.

The connections between the three rules are established in statute. The references in this rule are to the statute, and additionally include the WAC citations for clarity and future readability. For example, the reference in subsection 020(2) reads: "Chapter 70A.65 RCW, as described in chapters 173-446 and 173-446A WAC."

Ecology is not changing the rule due to these comments.

Comments on Assigned emissions level

Commenter: WSPA and Phillips 66 (comment O-2-15)

Summary: How does Ecology intend to determine an Assigned Emissions Level and place conditions it will use to determine the Assigned Emissions Level within the regulation? How will company personnel and/or verifiers be used in this process?

Response to Assigned emissions level

Thank you for your comments. Section 086 was already part of this regulation and is only slightly modified in this rulemaking. Ecology has assigned emissions levels to facilities in the past, and plans to use this tool as needed in a similar manner in the future. Ecology will continue to use all available information when setting any assigned emissions level, including information provided in signed GHG reports, or other information provided by the reporter, verifier, or other source. Subsection 086(3) describes this process. Ecology would rely on agency best judgement and any existing information to conservatively set an assigned emissions level if a reporter or their verifiers fail to assist in this process. It could also lead to a violation of the regulation.

Ecology is not changing the rule due to these comments.

Comments on Confidential business information

Commenters: NW Pulp & Paper Association (comment O-1-3), Phillips 66 (comment B-5-8), WSPA (comment O-2-7)

Summary: These reports contain confidential business information (CBI). We will submit petitions to protect the information.

Response to Confidential business information

Thank you for your comments. Ecology is retaining the existing procedure for confidential business information requests under the Washington Public Records Act (Chapter 42.56 RCW) and RCW 70A.15.2510. Any reporter with CBI concerns should submit a petition under that process once this rulemaking is complete.

Ecology is not changing the rule due to these comments.

Comments on Reporting fees

Commenter: WSPA (comment O-2-16)

Summary: Will fees be used just for covering the costs of reporting or also extend to cover CCA implementation costs? In the future, CCA revenue should replace the reporting fee.

Response to Reporting fees

Thank you for your comments. Fee recoverable activities are established in RCW 70A.15.2200(2) and are limited to recovering Ecology's costs of implementing the GHG reporting program. CCA implementation costs that are not directly tied to GHG reporting will not be part of this fee. Not all reporters are covered by the CCA and the legislature left Ecology's GHG reporting fee authority in place when adopting the CCA. Therefore, we will retain the GHG reporting fee in this rule.

Ecology is not changing the rule due to these comments.

Comments on References and technical clarifications

Commenters: City of Spokane (comment OTH-2-7), Powerex Corp. (comment B-10-2), WSPA and Phillips 66 (comment O-2-8)

Summary: Ecology received several requests for clarifications or technical corrections to the rule text.

One commenter requested that we specifically reference EPA's 40 CFR Part 98 in 050(3)(d)(iv) and 050(3)(g).

Another asked if the adoption by reference date in the definition of EPA's 40 CFR Part 98 in 020(1)(a) is intended to keep Washington's protocols consistent with that program.

One commenter requested changes on how "owner or operator", "person", and "reporter" are used, particularly for EPEs.

Response to References and technical clarifications

Thank you for your comments. The specified language in subsections 050(3)(d)(iv) and 050(3)(g) is part of the current regulation and has not been changed in this rulemaking. The reference to section 120 contains the necessary references to EPA's reporting program and is consistent with other similar references in the rule.

The adoption by reference date in the definition of EPA's 40 CFR Part 98 in 020(1)(a) is intended to keep Washington's protocols consistent with that program. Ecology has begun using a new method for incorporation by reference dates and this definition implements that method. It allows for a single adoption by reference date, streamlining the updating process. It is Ecology's intent to continue to update Chapter 173-441 WAC to maintain consistency with 40 CFR Part 98.

Ecology acknowledges that owner or operator can have different meanings for EPEs than other reporters. The proposed changes are extensive. Ecology has modified the definition of operator to have the same effect.

Ecology is making the following changes to the rule in response to these comments:

The adoption by reference date for EPA's 40 CFR Part 98 in 020(1)(a) has been updated to match the adoption date of this rulemaking.

The definition of operator in section 020 has been expanded to include the statement "The operator of an electric power entity may be the electric power entity itself."

Comments on Rulemaking process

Commenters: Avista Utilities (comment B-6-1), Cascade Natural Gas Corporation (comment B-11-3), Joint Utilities and Bonneville Power Administration (comment OTH-1-5), Phillips 66 (comment B-12-5), Powerex Corp. (comment B-10-5), Puget Sound Energy (comment B-7-9), Seattle City Light (comment O-3-6), Tacoma Power (comment O-6-5), Western Power Trading Forum (comment O-5-9)

Summary: Ecology should go slower with this rulemaking or delay finalizing until the agency can adopt Chapters 173-446 and 173-446A WAC at the same time. Alternately, we appreciate Ecology proactively working on this rulemaking in advance of the broader CCA rules. Please provide training sessions or workshops.

Response to Rulemaking process

Thank you for your comments. Ecology is required by the CCA to commence the cap and invest program by January 1, 2023. Ecology announced this rulemaking prior to the CCA cap and invest program rulemaking in order to establish the reporting requirements for the program. It is necessary to establish the reporting requirements first so that Ecology can collect the emissions data required for the cap and invest program. Additionally, some reporters will need to submit new information to Ecology in March 2022 in order to receive no cost allowances under the CCA. It is important to receive reports for new sectors as soon as possible so that both the reporters and Ecology can work through any issues before the start of the cap and invest program in 2023.

Ecology announced, proposed, and adopted this rule in accordance with the Washington Administrative Procedure Act. In addition to holding a public hearing and a formal public comment period, Ecology also held one stakeholder meeting and an informal public comment period on the draft rule. Ecology recognizes that statutory requirements led to an accelerated rule timeline. Ecology will continue to meet with reporters during rule implementation to work through any issues and ensure clear reporting requirements.

Ecology received several requests for general and specific workshops and trainings. We will conduct training sessions once the rulemaking is complete.

Ecology is not changing the rule due to these comments.