PROPOSED RULE MAKING



CR-102 (December 2017) (Implements RCW 34.05.320)

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DATE: May 16, 2022

TIME: 4:04 PM

WSR 22-11-067

Agency: Department	of Ecology A	O #21-06	
☐ Supplemental Not	ice to WSR		
☐ Continuance of W	SR		
	ment of Inq	uiry was filed as WSR 21-16-111	; or
☐ Expedited Rule Ma	akingProp	osed notice was filed as WSR	; or
☐ Proposal is exemp	ot under RC	W 34.05.310(4) or 34.05.330(1); or	•
☐ Proposal is exem	ot under RC	W	
Washington Administr chapter is to establish Emissions- Cap-and-li RCW 70A.65.)	ative Code, (and implement nvest Progra	Chapter 173-446 WAC, Climate Coent the programmatic framework in m, Engrossed Second Substitute Semaking visit: <a href="https://ecology.wa.gov/https://ecology.</td><td>The rulemaking is proposing a new chapter in the mmitment Act Program. The purpose of this new the Climate Commitment Act (Greenhouse Gas enate Bill 5126, Chapter 316, Laws of 2021, codified as gov/Regulations-Permits/Laws-rules-</td></tr><tr><td>rulemaking/Rulemakin</td><td><u>ig/WAC-173-</u></td><td><u>-446</u></td><td></td></tr><tr><td>Hearing location(s):</td><td>Time</td><td>Leastien, (he apositie)</td><td>Commant</td></tr><tr><td>Date:</td><td>Time:</td><td>Location: (be specific)</td><td>Comment:</td></tr><tr><td>June 21<sup>st</sup>, 2022</td><td>10:00 AM</td><td>Hearing via webinar. Join online and see instructions: https://waecy-wa-gov.zoom.us/meeting/register/tZc td-2vpzosGdMb4UVR6wjnJBv1zVn KElbu	Presentation, question and answer session followed by the hearing. We are holding this hearing via webinar. This is an online meeting that you can attend from any computer using internet access.
June 22 nd , 2022	6:00 PM	Hearing via webinar. Join online and see instructions: https://waecy-wa-	Presentation, question and answer session followed by the hearing. We are holding this hearing via webinar. This is an online meeting that you can attend from any computer using internet access.
June 27 th , 2022	1:00 PM	vdeyvrjMjH9Xip3BLePF3Yf- 10sStCZxM	Presentation, question and answer session followed by the hearing. We are holding this hearing via webinar. This is an online meeting that you can attend from any computer using internet access.
June 28 th , 2022	10:00 AM	Hearing via webinar. Join online and see instructions: https://waecy-wa-gov.zoom.us/meeting/register/tZclfu2rrD4tHtaNSP550zMMSB6KhbBszaHS ember 29, 2022 (Note: This is NOT	using internet access.
Date of intellued add	puon. septe	5111001 23, 2022 (NUCC. 11115 IS NU I	uic checuve uale <i>)</i>

Submit written comments to:

Name: Joshua Grice Address: Send US mail to: Department of Ecology Air Quality Program PO Box 47600, Olympia, WA 98504-7600

Or

Send parcel delivery services to: Department of Ecology Air Quality Program

300 Desmond Dr. SE, Lacey, WA 98503

Email: ecyreclimaterules@ecy.wa.gov

Fax: N/A

Other: Online: https://aq.ecology.commentinput.com/?id=6Nx2J

By (date) June 30, 2022

Assistance for persons with disabilities:

Contact Ecology ADA Coordinator

Phone: 360-407-6831

Fax: N/A

TTY: For Washington Relay Service or TTY call 711 or 877-833-6341.

Email: ecyADAcoordinator@ecy.wa.gov

Other: Visit https://ecology.wa.gov/accessibility for more information.

By (date) June 16, 2022

Purpose of the proposal and its anticipated effects, including any changes in existing rules: This rulemaking will establish the foundational regulations necessary to implement the Climate Commitment Act Program to cap greenhouse gas (GHG) emissions and implement an allowance trading market.

These components include, but are not limited to:

- Program coverage, registration, and account requirements
- Methods and procedures for allocating allowances
- Allowance budgets for the first compliance period (2023 2026) and distribution of allowances
- Auction registration requirements
- Auction floor and ceiling prices and Tier I and Tier II prices for allowance price containment reserve auctions
- Emissions containment reserve
- Procedures and protocols for offset projects
- Enforcement provisions
- Transfer and sale of allowances and recognition of compliance instruments
- Other elements to support the operation and functioning of the cap and invest program

Reasons supporting proposal: In 2020, the Legislature updated Washington's greenhouse gas emissions limits for 2030, 2040, and 2050. Washington must, based on current science and emission trends, achieve these targets to support the global effort to avoid the most significant impacts of climate change. Meeting these emission-reduction commitments will require coordinated, comprehensive, and multi-sectoral implementation of policies, programs, and laws – such as the Climate Commitment Act –as other enacted policies are insufficient by themselves. The Climate Commitment Act establishes a new cap-and-invest program to help Washington achieve these limits. Ecology is responsible for implementing this program through rulemaking. The legislation directs Ecology to start the program by January 1, 2023, and adopt annual allowance budgets for the first compliance period of the program by October 1, 2022.

Statutory authority for adoption: RCW 70A.65.220 Adoption of Rules

Statute being implemented: RCW 70A.65.060 through 70A.65.210 (Climate Commitment Act – Cap and Invest Program)

Is rule necessary	/ because of a:						
Federal Lav	w?		□ Yes ⋈ No				
Federal Co	urt Decision?		□ Yes ⋈ No				
State Court Decision? □ Yes □							
If yes, CITATION:	f yes, CITATION:						
Agency commen matters: N/A	its or recommendation	ns, if any, as to statutory language, implementati	on, enforcement, and fiscal				
Name of propone	ent: (person or organiza	ation) Department of Ecology	□ Private□ Public☑ Governmental				
Name of agency	personnel responsible	e for:					
,	Name	Office Location	Phone				
Drofting							
Drafting:	Kay Shirey	Lacey, WA	564-200-2372				
Implementation:	Luke Martland	Lacey, WA	360-764-3666				
Enforcement:	Luke Martland	Lacey, WA	360-764-3666				
The public may Name: N Address Phone: Fax: N// TTY: N/. Email: N Other: N S a cost-benefit S Yes: A pre Name: Address Phone: Fax: N// TTY: Fo Email: e Other: No: Plea	ment here: y obtain a copy of the solution y obtain a copy of the solution ix N/A N/A A A A A A A A A A A A A	nalysis may be obtained by contacting: gy npia, WA 98504-7600 rvice or TTY call 711 or 877-833-6341	☐ Yes ☒ No				
This rule proposal chapter 19.85 RC This rule proposal adopted solely to regulation this rule adopted. Citation and descomer This rule proposed fined by RCW 3	I, or portions of the prop W). Please check the bosal, or portions of the p conform and/or comply is being adopted to coription: osal, or portions of the p 34.05.313 before filing the posal, or portions of the p	posal, may be exempt from requirements of the Regox for any applicable exemption(s): proposal, is exempt under RCW 19.85.061 because with federal statute or regulations. Please cite the sonform or comply with, and describe the consequence proposal, is exempt because the agency has complete notice of this proposed rule.	this rule making is being pecific federal statute or ces to the state if the rule is not eted the pilot rule process				

□ This rule	e proposal, or portions of the proposal, is exempt	under R	.CW 19.85.025(3). Check all that apply:
	RCW 34.05.310 (4)(b)		RCW 34.05.310 (4)(e)
	(Internal government operations)		(Dictated by statute)
	RCW 34.05.310 (4)(c)		RCW 34.05.310 (4)(f)
	(Incorporation by reference)		(Set or adjust fees)
	RCW 34.05.310 (4)(d)		RCW 34.05.310 (4)(g)
	(Correct or clarify language)		((i) Relating to agency hearings; or (ii) process
			requirements for applying to an agency for a license
			or permit)
⊠ This rule	e proposal, or portions of the proposal, is exempt	under R	CW <u>19.85.025(4)</u> .
Economic I		osed rul	er the RFA, and their inclusion in a Small Business e would impose compliance costs on small businesses. 25(4).
required to employs 19 about half of GHG report	comply with the proposed rule. The average bus 273 people. However, we do not have full inform the 50-60 expected electric power entities that	iness that nation co would po covered	sses that would be covered entities and therefore at is likely to be a covered entity under the proposed rule incerning all potential covered entities. For example, otentially start reporting under recent amendments to the entities. Based on the size of other covered entities, we
attributes. The employ	This is particularly true for EPEs for which we have ment attributes of electric power entities, we chose	e uncert se to con	e all large businesses, we cannot be certain of all their ainty about emissions levels. Due to uncertainty about applete a Small Business Economic Impact Statement and disproportion in the impacts of the proposed rule.
revenue an		d be the	pacts and price or output impacts (as they play into most appropriate space to discuss macroeconomic he proposed rule.
	COMPLETE THIS SECTION (ONLY IF	NO EXEMPTION APPLIES
If the propo	sed rule is not exempt , does it impose more-tha	n-minor	costs (as defined by RCW 19.85.020(2)) on businesses?
□ No	Briefly summarize the agency's analysis showing	ng how o	costs were calculated
⊠ Yes econom	Calculations show the rule proposal likely impoint impact statement is required. Insert statement WA Depart	here:	e-than-minor cost to businesses, and a small business
	Small Business Eco Relevant Information fo	nomic I	mpact Statement:
	Proposed WAC 173-446 CI	imate C	ommitment Act Program
	Business Economic Impact Statement (SBEIS) p		-
	mpliance requirements of the proposed rule. sults of the analysis of relative compliance cost b	urden	
	nsideration of lost sales or revenue.	di doi.i	
	st-mitigating action taken by Ecology, if required.		
	all business and local government consultation.		
	ustries likely impacted by the proposed rule.		
• Exp	pected net impact on jobs statewide.		
whether the			Business Economic Impact Statement, are based on businesses. A rule is otherwise exempt from these

Based on available information, we did not identify any small businesses that would be covered entities and therefore required to comply with the proposed rule. The average business that is likely to be a covered entity under the proposed rule employs 19,273 people. However, we do not have full information concerning all potential covered entities. For example,

about half of the 50-60 expected electric power entities that would potentially start reporting under recent amendments to the GHG reporting rule (Chapter 173-441 WAC), would also be covered entities. Based on the size of other covered entities, we do not expect these electric power entities to be small businesses.

While it may be reasonable to assume that electric power entities are all large businesses, we cannot be certain of all their attributes. This is particularly true for EPEs for which we have uncertainty about emissions levels. Due to uncertainty about the employment attributes of electric power entities, we chose to complete a Small Business Economic Impact Statement and complete work required under the RFA, to fully understand potential disproportion in the impacts of the proposed rule.

As the RFA requires analyses specifically related to employment impacts and price or output impacts (as they play into revenue and profits), we also determined this analysis would be the most appropriate space to discuss macroeconomic modeling we performed to fully understand the potential impacts of the proposed rule.

A small business is defined by the Regulatory Fairness Act (chapter 19.85 RCW) as having 50 or fewer employees. Estimated costs are determined as compared to the existing regulatory environment—the regulations in the absence of the rule. The SBEIS only considers costs to "businesses in an industry" in Washington State. This means that impacts, for this document, are not evaluated for government agencies. The existing regulatory environment is called the "baseline" in this document. It includes only existing laws and rules at federal and state levels.

This information is excerpted from Ecology's complete set of regulatory analyses of the proposed rule. For complete discussion of the likely costs, benefits, minimum compliance burden, and relative burden on small businesses, see the Regulatory Analyses (Ecology publication no. 22-02-015, May 2022)

COMPLIANCE REQUIREMENTS OF THE PROPOSED RULE, INCLUDING PROFESSIONAL SERVICES

For this rulemaking, the regulatory baseline includes:

- Greenhouse Gas Emissions Cap and Invest Program law, Chapter 70A.65 RCW.
- Limiting Greenhouse Gas Emissions law, Chapter 70A.45 RCW.
- Reporting of Emissions of Greenhouse Gases rule, Chapter 173-441 WAC.
- Washington Clean Air Act law, Chapter 70A.15 RCW.
- Clean Energy Transformation Act law, Chapter 19.405 RCW, and rule, Chapter 173-444 WAC.
- Transportation Fuel Clean Fuels Program law, Chapter 70A.535 RCW.
- Motor Vehicle Emission Standards law, Chapter 70A.30 RCW.

General Requirements (proposed WAC 173-446-010 through -080)

- Purpose.
- Definitions.
- Applicability.
- Covered emissions.
- Covered entity registration.
- Electric utilities registration.
- General market participant registration.
- Cap-and-invest consultants and advisors.
- New or modified covered entities.
- Exiting the program.
- Allowances.

Program Account Requirements (proposed WAC 173-446-100 through -150)

- Program accounts required.
- Disclosure of corporate associations Indicia of corporate association.
- Disclosure of corporate associations types of disclosures required.
- Disclosure of corporate association information to be submitted.
- Designation and certification of account representatives.
- Designation of account viewing agents.
- Accounts for registered entities.

Allowance Budgets and Distribution of Allowances (proposed WAC 173-446-200 through -260)

- Total program baseline.
- Total program allowance budgets.
- Distribution of allowances to Emissions-Intensive and Trade-Exposed Entities.
- Distribution of allowances to electric utilities.
- Distribution of allowances to natural gas utilities.
- Removing and Retiring Allowances.
- Allowance distribution dates.

Allowance Auctions (proposed WAC 173-446-300 through -385)

• Auctions of current and prior year allowances.

- Public notice.
- Registration for an auction.
- Auctions prohibited actions.
- Suspension and revocation of registration.
- Bid guarantee.
- Purchase limits.
- Auction floor price and ceiling price.
- Administration of auction: lots.
- Bids
- Determination of actual maximum bid value.
- Maximum bid value in excess of bid guarantee.
- Acceptance of bids.
- Payment for purchases.
- Summary of auction.
- Auction of future year allowances.
- Allowance Price Containment Reserve Account.
- Emissions Containment Reserve Account.
- · Price ceiling units.
- Price ceiling unit Sales.

Compliance Instrument Transactions (proposed WAC 173-446-400 through -440)

- Compliance instruments transactions general information.
- Transfers among registered entities process.
- Transaction requests information required by Ecology.
- Transfers to Ecology process.
- Transfers of no cost allowances from an electric utility to an electrical generating facility or to a federal power marketing administrator.
- Transfer of no cost allowances from a utility's holding account to its limited use holding account for consignment to auction
- Compliance instrument transactions prohibited actions.

Offsets (proposed WAC 173-446-500 through -595)

- General requirements for Ecology offset credits and registry offset credits.
- Requirements for compliance offset protocols.
- Requirements for offset projects using Ecology compliance offset protocols.
- Authorized Project Designee.
- Listing of offset projects using Ecology compliance offset protocols.
- Monitoring, reporting, and record retention requirements for offset projects.
- Verification of GHG emissions reductions and GHG removal enhancements from offset projects.
- Requirements for offset verification services.
- Offset verifier and verification body accreditation.
- Conflict of interest requirements for verification bodies and offset verifiers for verification of offset project data reports.
- Issuance of registry offset credits.
- Issuance of Ecology offset credits.
- Process for issuance of Ecology offset credits.
- Registration of Ecology offset credits.
- Forestry offset reversals.
- Transferability of Ecology offset credits.
- Invalidation of Ecology offset credits.
- Approval requirements for offset project registries.
- Offset project registry requirements.
- Direct environmental benefits in the state.

COSTS OF COMPLIANCE: EQUIPMENT

Compliance with the proposed rule, compared to the baseline, is not likely to impose additional costs of equipment that are separable from emission abatement costs (see below).

COSTS OF COMPLIANCE: SUPPLIES

Compliance with the proposed rule, compared to the baseline, is not likely to impose additional costs of supplies.

COSTS OF COMPLIANCE: LABOR

Compliance with the proposed rule, compared to the baseline, is not likely to impose additional costs of labor that are separable from willingness to pay for GHG emissions allowances.

COSTS OF COMPLIANCE: PROFESSIONAL SERVICES

Compliance with the proposed rule, compared to the baseline, is not likely to impose additional costs of professional services that are separable from willingness to pay for GHG emissions allowances.

COSTS OF COMPLIANCE: ADMINISTRATIVE COSTS

Where applicable, Ecology estimates administrative costs ("overhead") as part of the cost of labor and professional services.

COSTS OF COMPLIANCE: OTHER

The various requirements in the proposed rule would interact to run the Cap and Invest Program. To estimate the costs resulting from the proposed rule, we estimated the costs of the combined requirements. These include combined costs of:

- Allowance purchases.
- Offsets.
- Emissions reductions.

Recall that allowance prices account for various transaction costs of being a covered entity under the proposed rule and allowance auction participation.

See the Preliminary Regulatory Analyses for this rulemaking for discussion of our overall analytic structure and assumptions, including underlying estimates of allowance market prices, allowance volumes, and emissions levels.

Year	Allowance Purchases	Abatement Costs	Total Costs
Teal	(billions of \$)	(billions of \$)	(billions of \$)
2030	\$2.77	\$0.88	\$3.65
2040	\$0.66	\$0.44	\$1.10
2050	\$0.06	\$0.54	\$0.60
Present Value through 2050	\$37.45	\$11.11	\$48.56

We also estimated total costs with maximum allowed use of offset credits.

Year	Allowance Purchases (billions of \$)	Offset Purchases (billions of \$)	Abatement Costs (billions of \$)	Total Costs (billions of \$)
2030	\$2.50	\$0.23	\$0.88	\$3.61
2040	\$0.62	\$0.04	\$0.44	\$1.10
2050	\$0.04	\$0.02	\$0.54	\$0.60
Present Value	\$34.44	\$2.56	\$11.11	\$48.11

We note that maximum use of offsets reduces average compliance costs, but has only minor impact on costs. We have therefore made the simplifying assumption of no offset use in sensitivity and alternatives analyses, which also conservatively estimates the high end of potential costs for relevant scenarios.

The costs in the tables above are maximum costs for each scenario, since abatement calculations assume a unit cost equivalent to the allowance market price. In reality, covered entities with emissions abatement options available to them at costs below the allowance price would first choose to reduce emissions before using allowances. The inverse holds for entities with high marginal abatement costs, which would inform their greater demand for allowances, which is in turn reflected by higher allowance market prices.

COMPARISON OF COMPLIANCE COST FOR SMALL VERSUS LARGE BUSINESSES

We calculated the estimated per-business costs to comply with the proposed rule, based on the costs estimated in Chapter 3 of this document. In this section, we estimate compliance costs per employee.

Since there is uncertainty in the employment levels of potential small business electric power entities, we chose to examine the full range of 1 - 50 employees that defines a small business in the RFA.

Type of cost (or total cost)	Low	High
Average small business employment	1	50
Average employment at largest ten percent of businesses	127,498	127,498
Small business cost per employee	\$266,80 2	\$13,216,16 4
Largest business cost per employee	\$105	\$104

We conclude that, **if the proposed rule does impose compliance costs on small businesses, it may disproportionately affect them**. Therefore Ecology must include elements in the proposed rule to mitigate the potential for this disproportion, as far as is legal and feasible.

CONSIDERATION OF LOST SALES OR REVENUE

Businesses that would incur costs under the Cap and Invest Program could experience reduced sales or revenues if the proposed rule significantly affects the prices of the goods they sell. The degree to which this could happen is strongly related to each business's production and pricing model (whether additional lump-sum costs would significantly affect marginal costs), as well as the specific attributes of the markets in which they sell goods, including the degree of influence each firm has on market prices, as well as the relative responsiveness of market demand to price changes.

We used the REMI E3+ model for Washington State to estimate the impact of the proposed rule on directly affected markets, accounting for dynamic adjustments throughout the economy. The model accounts for: inter-industry impacts; price, wage, and population changes; and dynamic adjustment of all economic and population variables over time.

	,	Motor vehicle	•	•	
	Statewide Price	fuels, lubricants,			
Year	Level Impacts	and fluids	Electricity	Natural Gas	Fuel Oil
2030	0.28%	1.50%	2.80%	-4.20%	1.40%
2040	0.07%	0.40%	1.00%	0.30%	0.40%
2050	0.03%	0.20%	0.60%	2.00%	0.20%
Year	Statewide Output	Utilities	Retail	Wholesale	Transportation and
	Impacts (billions of			(includes	Warehousing
	\$)			transportation	
				fuels)	
2030	-\$2.25	-\$0.29	-\$0.41	-\$0.88	-\$0.12
2040	-\$2.62	-\$0.21	-\$0.23	-\$0.62	-\$0.09
2050	-\$1.47	-\$0.10	-\$0.15	-\$0.31	-\$0.05

MITIGATION OF DISPROPORTIONATE IMPACT

The RFA (19.85.030(2) RCW) states that:

"Based upon the extent of disproportionate impact on small business identified in the statement prepared under RCW 19.85.040, the agency shall, where legal and feasible in meeting the stated objectives of the statutes upon which the rule is based, reduce the costs imposed by the rule on small businesses. The agency must consider, without limitation, each of the following methods of reducing the impact of the proposed rule on small businesses:

- a) Reducing, modifying, or eliminating substantive regulatory requirements;
- b) Simplifying, reducing, or eliminating recordkeeping and reporting requirements;
- c) Reducing the frequency of inspections;
- d) Delaying compliance timetables;
- e) Reducing or modifying fine schedules for noncompliance; or
- f) Any other mitigation techniques including those suggested by small businesses or small business advocates."

We considered all of the above options, the goals and objectives of the authorizing statutes (see Chapter 6), and the scope of this rulemaking. We limited compliance cost-reduction methods to those that:

- Are legal and feasible.
- Meet the goals and objectives of the authorizing statute.
- Are within the scope of this rulemaking.

Though the proposed rule is not analytically separable from the regulatory baseline for the purposes of this analysis, the authorizing statute does not allow Ecology to reduce, modify, or eliminate substantive requirements for any covered entities. The areas of the proposed rule reflecting these statutory requirements include rule coverage, inspections or their equivalent in verification, emissions reduction goals, compliance timetables, and fines. The areas in which Ecology exercised its discretion do not control substantive regulatory requirements or these other areas dictated in whole or in part by the statute.

Ecology simplified requirements related to recordkeeping and reporting by automatically registering covered entities (a subset of which may be small businesses, though are likely not; see Section 7.2). Automatic registration allows these businesses to avoid an element of transaction costs.

Small businesses would also inherently have fewer or no corporate associations (direct or indirect), and require fewer personnel managing or observing market and compliance activities.

SMALL BUSINESS AND LOCAL GOVERNMENT CONSULTATION

Ecology involved small businesses and local governments in its development of the proposed rule, using:

- Four stakeholder meetings:
 - o November 8, 2022
 - o December 16, 2022 (morning).
 - o December 16, 2022 (afternoon).
 - o January 11, 2022.
- For each stakeholder meeting we sent notifications to two email distribution lists that include multiple business and local government contacts:

- Climate Commitment Act listserv.
- o Greenhouse gas reporting listserv.
- Two Tribal rulemaking review sessions:
 - o January 13, 2022.
 - o January 18, 2022.
- An informal comment period from Nov. 8 Jan. 26 (deadline extended from initial date of Jan. 18 in response to stakeholder requests).

NAICS CODES OF INDUSTRIES IMPACTED BY THE PROPOSED RULE

11/11/00	ODES OF INDUSTRIES INFACTED BY		NOLD ROLL
NAICS	NAICS Title	NAICS	NAICS Title
1121	Cattle Ranching and Farming	3274	Lime and Gypsum Product Manufacturing
2123	Nonmetallic Mineral Mining and	3311	Iron and Steel Mills and Ferroalloy
	Quarrying		Manufacturing
2131	Support Activities for Mining	3313	Alumina and Aluminum Production and
			Processing
2211	Electric Power Generation,	3314	Nonferrous Metal (except Aluminum)
	Transmission and Distribution		Production and Processing
2212	Natural Gas Distribution	3321	Forging and Stamping
2213	Water, Sewage and Other Systems	3344	Semiconductor and Other Electronic
			Component Manufacturing
3112	Grain and Oilseed Milling	3359	Other Electrical Equipment and Component
			Manufacturing
3114	Fruit and Vegetable Preserving and	3364	Aerospace Product and Parts
	Specialty Food Manufacturing		Manufacturing
3115	Dairy Product Manufacturing	4247	Petroleum and Petroleum Products
			Merchant Wholesalers
3116	Animal Slaughtering and Processing	<i>4</i> 251	Wholesale Electronic Markets and Agents
			and Brokers
3119	Other Food Manufacturing	4451	Grocery Stores
3211	Sawmills and Wood Preservation	4471	Gasoline Stations
3212	Veneer, Plywood, and Engineered	4 811	Scheduled Air Transportation
	Wood Product Manufacturing		
3219	Other Wood Product Manufacturing	4862	Pipeline Transportation of Natural Gas
3221	Pulp, Paper, and Paperboard Mills	4881	Support Activities for Air Transportation
3222	Converted Paper Product	4921	Couriers and Express Delivery Services
	Manufacturing		
3241	Petroleum and Coal Products	4931	Warehousing and Storage
	Manufacturing		
3251	Basic Chemical Manufacturing	5622	Waste Treatment and Disposal
3253	Pesticide, Fertilizer, and Other	6113	Colleges, Universities, and Professional
	Agricultural Chemical Manufacturing		Schools
3272	Glass and Glass Product	9241	Administration of Environmental Quality
	Manufacturing		Programs
3273	Cement and Concrete Product	9281	National Security and International Affairs
	Manufacturing		

IMPACT ON JOBS

We used the REMI E3+ model for Washington State to estimate the impact of the proposed rule on jobs in the state, accounting for dynamic adjustments throughout the economy.

The proposed rule would result in transfers of money within and between industries, as compared to the regulatory baseline. The modeled impacts on employment are the result of multiple small increases and decreases in employment, prices, and other economic variables across all industries in the state. We used outputs from the same model run as described above in Section 7.5. Employment impacts are presented in thousands of full-time employee (FTE) equivalents in each year.

Year	Statewide	Utilities	Retail	(includes transportation fuels)	Transportation and Warehousing	Construction (infrastructure)	Manufacturing
2030	-0.28	-0.19	-2.05	-2.16	-0.77	8.48	0.352
2040	-5.49	-0.11	-0.87	-1.17	-0.52	1.86	-0.175
2050	-3.88	-0.04	-0.46	-0.45	-0.26	-0.08	0.255

The public may obtain a copy of the small business economic impact statement or the detailed cost calculations by contacting:

Name: Joshua Grice

Address: Department of Ecology Air Quality Program

PO Box 47600, Olympia, WA 98504-7600

Phone: 360-280-6566

Fax: N/A

TTY: For Washington Relay Service or TTY call 711 or 877-833-6341.

Email: ecyreclimaterules@ecy.wa.gov

Other:

Date: 5/16/2022	Signature:	
Name: Heather Bartlett	1 ball Of the H	
Title: Deputy Director	Stather Claving	