State of Oregon Department of Environmental Quality

Draft Fiscal Impact Statement, Fee Analysis, Racial Equity, and Environmental Justice

Climate Protection Program 2024 Rulemaking

Request for advisory committee comment

DEQ is requesting feedback and any additional data or information from members of the advisory committee on:

- Whether the proposed rules would have a fiscal impact and the extent of that impact
- Whether the rules will have a significant economic effect on businesses, and options that the EQC should consider for achieving the rules' substantive goals while reducing that impact
- Whether the proposed rules would have a significant adverse effect on small businesses, and if yes, how might the EQC reduce that impact consistent with the public health and safety purpose of the proposed rules
- Potential racial equity impacts of the proposed rules
- Potential environmental justice considerations of the proposed rules

Overview

The Climate Protection Program 2024 proposed rules establish a program that sets an enforceable and declining limit, or cap, on greenhouse gas emissions from fossil fuels used in Oregon, including diesel, gasoline, natural gas, and propane. These fossil fuels are used in transportation, residential, commercial and industrial settings.

The primary mechanism for reducing emissions in the CPP 2024 proposed rules is declining caps on fossil fuel suppliers and Emissions-Intensive Trade-Exposed stationary source. The CPP 2024 proposed rules also includes a Best Available Emissions Reduction mechanism to regulate industrial process emissions at BAER stationary sources.

The purposes the CPP 2024 proposed rules are to:

- Significantly reduce greenhouse gas emissions to address the worsening effects of climate change
- Achieve co-benefits, such as improvements in public health from other air contaminant reductions, and
- Enhance public welfare for Oregon communities, particularly environmental justice communities, (including, communities of color, tribal, communities experiencing lower incomes, and rural communities).

To support these purposes, the CPP 2024 proposed rules:

- Require that covered entities reduce greenhouse gas emissions,
- Support reduction of emissions of other air contaminants in addition to greenhouse gases,

- Prioritize reduction of greenhouse gases and other air contaminants in environmental justice communities disproportionately burdened by the effects of climate change and air contamination, and
- Provide covered entities with compliance options to mitigate economic impacts to businesses and consumers, including the option to meet part of their compliance obligations with Community Climate Investments credits, an alternative designed to reduce emissions from fossil fuels in Oregon communities.

Affected parties

The following parties will be directly affected by the proposed rules:

- Fuel suppliers
    - Suppliers of liquid fuels and propane that exceed certain thresholds of greenhouse gas emissions
    - Natural gas utilities, termed as “local distribution companies” in the proposed rules
- Stationary sources
    - A subset of stationary sources that meet the definition of a covered stationary source subject to Best Available Emissions Reduction (BAER)
    - A subset of stationary sources that meet the definition of an EITE (Emissions-Intensive Trade-Exposed) source

In addition, organizations that may receive funds as Community Climate Investments for projects that reduce greenhouse gas emissions in Oregon may also be directly affected by the proposed rules.

Additional background

The CPP 2024 proposed rules are informed by the CPP 2024 rulemaking process, the over 18-month process to develop the initial Climate Protection Program which was adopted by the Environmental Quality Commission in December 2021 (the “CPP 2021”), and two years of DEQ staff, regulated companies, other interested parties, and the public’s experience implementing the CPP 2021 prior to that program’s invalidation by the Oregon Court of Appeals.

DEQ used a three-phase approach to develop the CPP 2021. Program development was informed by extensive public engagement. Prior to the formal rulemaking process in 2021, DEQ convened two public listening sessions, followed by seven technical workshops on key program elements and three town halls throughout 2020. Hundreds of people attended these meetings and offered extensive input on how Oregon could implement a greenhouse gas emissions reduction program.

DEQ began the formal rulemaking process at the beginning of 2021 with the 34-member rulemaking advisory committee. The advisory committee included members from potentially regulated businesses, environmental justice and community-based organizations, tribes, as well as other parties. The advisory committee met seven times from January through July 2021. All meetings were open to the public and included opportunities for public comment. DEQ received over 7,000 comments after the release of the Notice of Proposed Rulemaking in August 2021.

Two years of program implementation included program modifications and clarifications adopted by the EQC in November 2023 and December 2023, as part of the Climate 2023 rulemaking.

DEQ had convened an Equity Advisory Committee as a key partner for the CPP 2021 Community Climate Investments, including the selection of a provisional CCI entity. Equity Advisory Committee members included representatives from Tribes, environmental justice advocates, committed individuals, environmental advocates and academic researchers.

Fee analysis

These proposed rules would establish a new fee. Statutory authority to adopt the proposed fee is provided in ORS 468A.295.

Brief description of proposed fees

Proposed rules would establish a new Community Climate Investment fee of 4.5% on all CCI contributions from covered fuel suppliers received by a CCI Entity. The CCI fee would be paid to DEQ by all approved CCI entities on a biannual basis. The fee would be deposited into the Community Climate Investment Oversight Account at DEQ. Allowable uses of the fee include paying for costs of administering and overseeing those portions of the Climate Protection Program related to Community Climate Investments.

Reasons

New fee created by statute: Section 2 of HB 3196 (2023), now codified in ORS 468A.295, authorizes the EQC to establish a fee up to 5% that is reasonably calculated to cover DEQ's costs of administering and overseeing those portions of the Climate Protection Program related to Community Climate Investments.

The fee will pay the costs of administering and overseeing those portions of the Climate Protection Program related to Community Climate Investments. As the program is implemented, the fee will support increased DEQ capacity to properly administer and oversee the CCI program.

As the CCI program has yet to be fully implemented, fee trend information is not available. DEQ has used assumptions and information from the advisory committee to determine the proposed fee percentage at 4.5%, with additional proposed language allowing DEQ to lower the fee for a given fee period if it is determined that the lower fee would cover the costs of administering and overseeing those portions of the Climate Protection Program related to Community Climate Investments.

Fee proposal alternatives considered

DEQ requires a fee to cover the Department's costs of administering and overseeing the CCI program. Different options for structuring the fee were considered. DEQ recommends setting the fee and schedule as proposed. If a fee is not adopted, the lack of funding would hamper DEQ's ability to oversee and administer the CCI program, including the review and approval of CCI entity workplans, annual reports, as well as program oversight, communications, and reporting.

Fee payer

The fee payers include any DEQ approved Community Climate Investment entities.

Affected party involvement in fee-setting process

There are no Community Climate Investment entities approved at this time.

Summary of impacts

Fee will support DEQ implementation and oversight of the CCI program and CCI entity, and overall transparency. Fee will also support DEQ communication and sharing resources with the public, environmental justice communities, and interested parties related to the CCI program. Fee will support engagement with environmental justice communities prioritized to benefit from emission reduction projects funded by the Community Climate Investments.

Fee payer agreement with fee proposal

There are no approved CCI entities at this time. When a CCI entity is approved by DEQ, the CCI fee will be included in a written agreement between DEQ and the CCI entity, in addition the proposed rules establishing the fee.

Links to supporting documents for proposed fees

Document title	Document location
House Bill 3196 (2023):	https://olis.oregonlegislature.gov/liz/2023R1/Downloads/MeasureDocument/HB3196/A-Engrossed

Estimated DEQ Annual Expenses for Costs Associated with Administering and Overseeing CCI Program:

	Year 1	Year 2	Year 3	Year 4	Year 5
Personnel (fringe included):	$1,394,895	$1,464,639	$1,537,871	$1,614,765	$1,695,503
Materials:	$50,000	$52,500	$55,125	$57,881	$60,775
Subcontracted:	$375,000	$677,500	$711,375	$746,944	$784,291
Annual Total	**$1,819,895**	**$2,194,639**	**$2,304,371**	**$2,419,590**	**$2,540,569**

Note: Expenses adjusted annually for 5% inflation
Note: This assumes covered entities choose this optional compliance mechanism

Potential CCI contribution scenarios

Compliance period	Emissions Cap (MTCO2e)	Scenario 1	Scenario 2	Scenario 3
2025 (year 1)	25,995,557	$83,835,671	$41,917,836	$0
2026 (year 2)	24,898,109	$80,296,402	$40,148,201	$0
2027 (year 3)	23,800,661	$76,757,132	$38,378,566	$0
Average	**24,898,109**	**$80,296,402**	**$40,148,201**	**$0**

Range of percent fees from CCI contributions based on the average of the first compliance period.

CCI Fee %	Scenario 1	Scenario 2	Scenario 3
1.0%	$802,964	$401,482	$0
2.0%	$1,605,928	$802,964	$0
3.0%	$2,408,892	$1,204,446	$0
4.0%	$3,211,856	$1,605,928	$0
4.5%	**$3,613,338**	**$1,806,669**	**$0**
5.0%	$4,014,820	$2,007,410	$0

Scenarios

- Scenario 1: 25% of covered entities choose to demonstrate compliance with 10% Community Climate Investments.
- Scenario 2: 25% of covered entities choose to demonstrate compliance with 5% Community Climate Investments.
- Scenario 3: 0% of covered entities choose to demonstrate compliance with Community Climate Investments.

Assumptions

- CCI contribution is $129, and will first increase March 1, 2027, by $1 and then adjusted for inflation.
- CCI contributions will not be made in 2025, while DEQ is getting CCI entity(ies) approved.

How long will the current fee sustain the program?

There are no current fees established for the program. The proposed fee in this rulemaking is intended to pay DEQ's costs in administering and overseeing the CCI program.

Proposed Fees		
Expected change in revenue (+/-)	unknown	0%
Main GF required by statute/rule to fund program	unknown	0%
Proposed fee allows General Fund replacement	$0	0%
Expected effective date	Jan. 1, 2025	

Transactions and Revenue				
Biennium	**Number of transactions**	**Number of fee payers**	**Impact on revenue (+/-)**	**Total revenue (+/-)**
Current biennium	0	0	$0	$0
Next biennium	unknown	unknown	unknown	unknown

Fee schedule

Fee to be paid biannually to DEQ by any approved CCI entities.

CCI Fee Schedule			
Dates of biannual fee payment to DEQ			
DEQ Invoices CCI Entities	**Period covered**	**Amount of fee**	**Documentation**
February 1 of each year	July 1 – December 31 of previous calendar year	4.5% of all CCI contributions received from covered fuel suppliers (unless DEQ specifies a reduced fee percentage in the invoice)	Report of all CCI contributions received during the fee period
August 1 of each year	January 1 – June 30 of that calendar year	4.5% of all CCI contributions received from covered fuel suppliers (unless DEQ specifies a reduced fee percentage in the invoice)	Report of all CCI contributions received during the fee period

The CPP 2024 proposed rules would not create any new fees for covered stationary sources subject to BAER. There are no fees associated with a BAER assessment or BAER order, but in some cases complying with a BAER order may require a stationary source to submit a Notice of Construction or permit modification application, including applicable fees. Fees are listed in OAR 340-216-8020 Table 2 and OAR 340-220-0050 and depend on the source's DEQ air permit type and the type of modification.

Statement of fiscal and economic impact

Fiscal and economic impact

The focus of this statement is the anticipated fiscal impact of the CPP 2024 proposed rules on regulated entities. Indirect impacts on businesses and consumers in Oregon are discussed in the Public section below.

Climate change is impacting Oregon's environment, air, water, and economy. Oregonians are already experiencing the reality of increased wildfire risk as a result of climate change, as well as other extreme impacts. The significant economic losses, negative health impacts, and environmental damage caused by climate change inaction demonstrates the importance of reducing greenhouse gas emissions with regulations such as the CPP 2024 proposed rules. This fiscal impact statement does not quantify or calculate the costs of climate change in Oregon, or the benefits that the state will realize if climate change is limited relative to recent trends. This fiscal impact statement assesses the fiscal and economic impact of the CPP 2024 proposed rules.

The CPP 2024 proposed rules include two key program approaches for reducing greenhouse gas emissions in Oregon:

- An annually declining cap on greenhouse gas emissions that requires emissions reductions from covered fuel suppliers and stationary sources that are covered Emission Intensive Trade Exposed sources
- A process to determine and require the best available greenhouse gas emissions reductions at stationary sources that are covered Best Available Emissions Reduction sources.

The CPP 2024 proposed rules offer various options and flexibility for covered entities to comply such that a given covered entity may reduce its emissions in a way that aligns with its particular circumstance, perspective, and business needs.

The cap on emissions from covered fuel suppliers and covered EITE sources is a market-based regulatory approach to reduce greenhouse gas emissions from the use of fuels supplied in Oregon. This approach does not mandate the use of any particular type of fuel or technology. Instead, it defines a total limit or cap on all covered emissions resulting from the supply of covered fuels for use in Oregon.

DEQ will distribute free compliance instruments to each covered fuel supplier and covered EITE source. As the total limit, or cap, on greenhouse gas emissions decreases each year, DEQ will distribute fewer compliance instruments accordingly. Covered fuel suppliers and covered EITE sources will demonstrate compliance once for total covered emissions for each three-year compliance period. For the first three-year compliance period covered EITE sources will be distributed compliance instruments equivalent to 100 percent of their estimated 2017-2019 covered emissions. Covered fuels suppliers and covered EITE sources must submit one compliance instrument or Community Climate Investment credit for every ton of covered emissions during the three-year compliance period. The multi-year compliance period allows for fuel suppliers to plan for and respond to annual variability in fuel demand. Placing the point of regulation for natural gas at covered EITE sources gives these large stationary sources direct control and options for reducing emissions, thereby lowering potential costs. Potentially transitioning to a compliance instrument allocation method that uses a declining emissions

intensity target, in compliance periods after the initial compliance period, may further alleviate potential leakage.

Covered fuel suppliers and covered EITE sources that need additional compliance instruments beyond what they are allocated can acquire compliance instruments through trading with other fuels suppliers and EITE sources that have excess instruments; they also can bank compliance instruments in one period for use in a subsequent period. In addition to compliance instruments, covered fuel suppliers and covered EITE sources can also elect to earn community CCI credits by contributing funds to a community climate investment entity. Contributions to approved CCI entities will result in DEQ issuing CCI credits to the fuel supplier or EITE source. CCI funds are then used to fund projects that reduce anthropogenic greenhouse gas emissions and benefit Oregon communities, prioritizing investments that will benefit environmental justice communities. The degree to which covered fuel suppliers or covered EITE sources may use CCI credits to meet their compliance obligations is limited, however.

Covered fuel suppliers and covered EITE sources are anticipated to meet part of their compliance obligations by replacing or substituting fossil fuels with renewable or lower carbon fuels. In the case of gasoline and diesel fuel suppliers, this could occur by increased use/substitution of renewable and/or lower carbon fuels. In the case of natural gas, this could occur through increased use of biomethane or through substitution of hydrogen. To some degree, covered fuel suppliers are also expected to increase prices of fossil fuels to consumers as the compliance instruments allowing them to supply those fuels become scarcer over time. The potential economic impacts of these actions are addressed in the public section below.

The best available emissions reduction approach is a site-specific approach to generally reduce greenhouse gas emissions that result from industrial processes. This includes an assessment of the options available to each BAER source to reduce covered emissions. DEQ can consider each source's specific circumstances and impacts on nearby communities in determining requirements for emissions reductions. This might include practices, processes or technologies that are available and cost-effective, but that also maximize emissions reductions.

Covered fuel suppliers

Administration, permitting, reporting, and recordkeeping

DEQ is proposing to require covered fuel suppliers register in DEQ's electronic system, apply for a permit, report information to demonstrate compliance, and retain records of reported information for seven years.

Covered fuel suppliers are already reporting to DEQ's Greenhouse Gas Reporting Program, subject to the Oregon Clean Fuels Program, or both. There would also be on-going costs associated with reporting to demonstrate compliance and retaining records. Since the covered fuel suppliers are already reporting to DEQ they may already have staff available to take on any new reporting requirements. The costs of complying with the CPP 2024 proposed rules are likely to vary from one entity to another, depending on existing reporting and recordkeeping activities and depending on how each entity chooses to comply with the program requirements.

The CPP 2024 proposed rules recordkeeping requirements may result in additional costs for some covered fuel suppliers if they need to add capacity to their existing systems in order to

retain additional records. Other costs incurred would be in relation to allocating time and resources for demonstrating compliance to DEQ. The use of a three-year compliance period helps to reduce these on-going costs.

Covered fuel supplier may experience a fiscal impact due to these requirements, but DEQ does not have any specific information to quantify all costs associated with these requirements. EPA has estimated costs to entities for tracking and reporting greenhouse gas emissions in the Regulatory Impact Analysis for the Mandatory Reporting of Greenhouse Gas Emissions, Final Rule (GHG Reporting). EPA has estimated these costs as ranging from $0 to $6,854 per year. The higher end of the range is based on labor, recordkeeping, and reporting costs for the relevant industry. DEQ does not have additional information to determine the precise costs and acknowledges that it could be different than as estimated in this report from EPA. During the CPP 2021 rulemaking DEQ received an estimate in a written comment that was a representative of a potentially covered fuel supplier suggesting that these costs may range from $4,000 to up to $40,000 per year. The higher end of the range is based on labor, recordkeeping, and reporting costs for an entity that may need to train new staff to conduct program administration.

Reducing greenhouse gas emissions

DEQ will distribute compliance instruments directly to covered fuel suppliers, without any direct cost paid by the fuel suppliers for the instruments, and those compliance instruments are then used to demonstrate compliance with the program's greenhouse gas emissions limits. The number of compliance instruments DEQ distributes each year will decline with the declining caps on emissions. A covered fuel supplier therefore incurs costs related to program compliance if the quantity of compliance instruments distributed by DEQ is insufficient to cover the emissions associated with the volumes of covered fuels that they supply during a compliance period. The declining caps allow covered fuel suppliers time to plan for and implement program compliance strategies. The following discusses the costs for a covered fuel supplier to comply with the program for each MT of CO2e emissions resulting from the use of those fuels in Oregon that are in excess of the number of compliance instruments the fuel supplier receives from DEQ.

The CPP 2024 proposed rules include several compliance flexibility options for covered fuel supplier to help mitigate costs while achieving significant emissions reductions. DEQ expects that allowing for varying options for achieving compliance will mitigate the costs of compliance for a given covered fuel supplier, and therefore mitigate the overall costs of the program. Compliance flexibility options include:

- Three-year compliance periods to provide covered fuel suppliers with time to implement emissions reduction strategies and helps to better account for weather-related changes to emissions or other annual variability.
- The ability to bank unused compliance instruments into the future can help covered entities achieve compliance in the most cost-effective manner throughout time. If emissions reductions are less costly in early years of the program, a covered entity could reduce emissions early and save unused compliance instruments for use in later years when additional emissions reductions may be more costly. DEQ would expect covered fuel suppliers to choose this compliance option if it makes business sense for the long-term and those early emissions reductions are expected to be lower cost than later emissions reductions.

- The ability to trade compliance instruments allows covered fuel supplier to achieve the program cap on emissions collectively, which can result in cost savings across the program compared to an approach where each covered fuel supplier must individually achieve the same level of emissions reductions. Trading can allow covered fuel supplier that are able to reduce emissions cost-effectively or quickly to trade unused instruments with other covered fuel suppliers that require more time to reduce emissions. Covered fuel suppliers will be able to determine the price at which they are willing to trade compliance instruments. Specific prices are therefore likely to vary per trade, but in the aggregate trading allows for a more efficient allocation of resources and promotes cost-effective emissions reductions.
- Option to choose to contribute funds to a CCI entity to earn CCI credits. A covered fuel supplier may choose to use CCI credits for up to 15 percent of its compliance obligation in the first compliance period, and 20 percent in each compliance period thereafter. Covered fuel suppliers receive CCI credits from DEQ when they demonstrate that they have contributed funds to a DEQ-approved CCI entity to support implementation of projects that reduce greenhouse gas emissions. Under the proposed rules, the voluntary contribution required to receive one CCI credit begins at $129 in 2025, stays $129 for 2026, and in 2027 increases by $1 per year, over time. This contribution amount was informed by project implementation costs, specifically the likely range of costs to reduce to emissions by one ton for each CCI credit issued. The contribution to receive one CCI credit in a given year also will be adjusted for inflation, in addition to the $1 per year increase. While the proposed program rules allow up to a certain percent (depending on the compliance period) of a compliance obligation to be achieved with CCI credits, the use of CCI credits is not required.

Covered fuel suppliers are more likely to choose the last two options if either is less expensive than the cost to reduce emissions, and the cost of acquiring a compliance instrument via trade may be less than the contribution amount to earn a CCI credit. In any given year, but especially as the program progresses and the caps become lower over time, covered fuel suppliers may use any combination of the above compliance options. These multiple combinations make it difficult to estimate the potential fiscal impacts and DEQ does not have specific information to quantify all costs associated with reducing emissions. DEQ anticipates that any contributions to earn CCI credits may be the highest compliance cost for covered fuel suppliers, particularly in early years of the program. However, DEQ acknowledges that the program could become more expensive over time as opportunities to reduce emissions become constrained and as the necessary dollar contribution amount to receive a CCI credit increases.

Example covered fuel supplier fiscal impact scenario using CCI contributions:

Imagine a covered fuel supplier with baseline annual greenhouse gas emissions of 100,000 MT CO2e. Assume the supplier receives 95,000 compliance instruments from DEQ for 2026. It would need to either reduce emissions or find a way to comply with the remaining 5,000 MT CO2e of emissions if it seeks to continue to emit 100,000 MT CO2e in that year. Since the percentage of compliance instruments the fuel supplier needs to demonstrate compliance is less than 15% of its compliance obligation, the covered fuel supplier could choose to contribute CCI funds to support projects that reduce greenhouse gas emissions, and at $129 per CCI credit in 2026, the total contribution would be $645,000 to earn 5,000 CCI credits. Later in the program, the distribution of compliance instruments decreases further, and the allowable usage of CCI credits increases. Now assume the covered fuel supplier receives 80,000 compliance instruments for 2031. If the covered fuel supplier still has 100,000 MT CO2e of covered

emissions, it would need to either reduce emissions or find a way to comply with the remaining 20,000 MT CO2e if it seeks to emit 100,000 MT CO2e. Since the percentage of compliance instruments the fuel supplier needs to demonstrate compliance that year is 20% of its compliance obligation, it could again choose to make contributions to earn CCI credits and at $134 per CCI credit in 2031, and the total contribution would be $2,680,000 (2024 dollars) to earn 20,000 CCI credits. Alternatively, in any year, the covered fuel supplier may seek a compliance instrument trade at a lower price or may decide to increase prices to reduce emissions.

As the cap continues to decline over time, covered fuel suppliers would receive fewer compliance instruments. If, for example, in the third compliance period, a covered fuel supplier receives fewer compliance instruments than 80 percent of its baseline emissions, making contributions to earn CCI credits would no longer be sufficient to fully meet its compliance obligation, and so it would need to take actions to reduce emissions by reducing the volume of fuels (through price increases) or increasing the mix of renewable or lower carbon fuels, or it would need to acquire additional compliance instruments through trades.

Covered fuel suppliers may achieve compliance by reducing greenhouse gas emissions resulting from fuels usage over time to levels that ensure any compliance instruments they receive from DEQ will cover their compliance obligations. A covered fuel supplier could supply less fossil fuels in favor of more alternatives, such as biofuels and other clean fuels. A covered fuel supplier could also supply less fuel overall in order to reduce emissions it is responsible for under the program. In this case, that reduced supply could both increase costs to consumers and businesses. Price increases could lead businesses (particularly those that are heavily reliant on natural gas, gasoline, or diesel) to shift operations to outside of Oregon in order to avoid these costs. There may be other costs associated with choosing to comply by directly reducing emissions, such as for equipment, retrofits, supplies, labor, increased administration, or other operational impacts. DEQ expects costs or savings will vary over time as technologies emerge, vary by fuel type, and vary for each covered fuel supplier.

As part of CPP 2021 program development, DEQ contracted with ICF to analyze the macroeconomic impacts of potential program options to implement an emissions cap from the use of fossil fuels in commercial, industrial and residential settings in Oregon. While the assumptions for these modeling scenarios were not identical to these proposed rules, the study included several key program elements, such as significantly declining emission caps on fossil fuel, different point of regulation for natural gas, and the option for covered fuel suppliers to use CCIs, which make this analysis informative for these CPP 2024 proposed rules As part of the study, ICF evaluated cost ranges for emissions reductions from fuels based on external studies and internal ICF analysis. These ranges, which are discussed below, represented net present value and account for cumulative emissions reductions achieved across the modeled policy scenarios for the CPP 2021 program development and a study period of 2022 through 2050, rather than a cost for a particular snapshot in time.

The costs should not be interpreted as costs per ton of emissions; rather, these are costs per ton of emissions reduced. As noted above, compliance instruments will be distributed without cost to covered fuels suppliers. In addition, the cost estimates included below do not represent a potential direct cost to a covered fuel supplier. In actuality, different costs may be borne by different parties, depending on different compliance strategies and various policies. This may include fiscal impacts to the covered fuel supplier, pass through costs to its customers, but also may include costs to others, such as an electric utility and its customers, and could also incorporate savings from incentives and government programs.

In the analysis ICF estimated costs to reduce emissions from natural gas may range from $64 to $188 (2020 dollars) per metric ton of emissions reduced. These estimated costs are dependent on the strategy chosen from a range of different strategies. The costs estimated here include the cost of equipment (such as for energy efficiency or electrification) and fuel costs, assuming introduction of biomethane into the supply.

For fossil fuels other than natural gas, the estimated costs to reduce emissions ranged from $50 to $55 (2020 dollars) per metric ton of emissions reduced. The costs estimated here include the costs of vehicles, such as electric vehicles or alternative fuel vehicles, as well as costs for alternative fuels, assuming they replace emissions from regulated fuels, such as gasoline or diesel. The cost ranges are based on available information, but may be higher or lower, depending on business decisions, technologies advancements, and changes to complementary policies over time. For example, the Oregon Clean Fuels Program is a complementary policy that creates incentives to transition to lower-carbon fuels over time. This may result in reduced costs of biofuels over time, which could in turn reduce the costs of compliance in the proposed CPP 2024.

Enforcement

There are costs related to being involved in an enforcement action that includes correcting the violation and the payment of civil penalties, if assessed. The proposed enforcement rule changes would not have an economic impact on covered entities unless they violate the program rules.

Potential impacts to stationary sources: Covered stationary sources subject to BAER

Administration, permitting, reporting, and recordkeeping

The costs of complying with the proposed CPP 2024 vary from one entity to another, depending on existing reporting and recordkeeping activities. All stationary sources that would be a covered stationary source subject to BAER under these proposed rules as are already reporting to DEQ's Greenhouse Gas Reporting Program and have DEQ air permitting requirements, and therefore may already have staff available to take on new reporting and permitting requirements. The recordkeeping requirement may result in additional costs for some stationary sources that do not currently retain records for ten years or if they need to add capacity to their existing systems in order to retain additional records required for the proposed CPP 2024.

BAER sources may experience a fiscal impact due to these requirements, but DEQ does not have any specific information to quantify all costs associated with these requirements. EPA has estimated costs to entities for tracking and reporting greenhouse gas emissions in the Regulatory Impact Analysis for the Mandatory Reporting of Greenhouse Gas Emissions, Final Rule (GHG Reporting). EPA has estimated these costs as ranging from $0 to $6,854 per year. The higher end of the range is based on labor, recordkeeping, and reporting costs for the relevant industry. DEQ does not have additional information to determine the precise costs and acknowledges that it could be different than as estimated in this report from EPA. DEQ notes that if the costs were twice as high as the EPA estimates, the costs could range from $0 to $13,708 (2020 dollars). For a source that must modify a permit to incorporate BAER order requirements, a fee may be incurred each time it must apply for a CPP permit addendum.

The costs to conduct and complete a BAER assessment will be dependent on whether or not a source has existing technical and professional staff resources that can conduct this type of emissions and technology assessment, or whether they may need to contract with a third-party consulting firm to assist. DEQ made an effort to balance the timeliness and costs of the BAER approach by allowing sources nine months to conduct the assessments, which gives them time to first determine the most cost-effective approach for conducting the assessment, such as comparing costs of different consulting firms. Costs will also depend on the industry type and will be specific to the complexity of each source's individual business.

DEQ does not have specific information to quantify all costs associated with conducting a BAER assessment, but DEQ estimates that preparing a BAER assessment may take approximately 150-300 hours of facility staff time and/or consultant time. At a rate of $200 per hour, estimated costs are $30,000-$ 60,000. After having completed the BAER process, sources have to submit an annual progress report and five-year BAER reports. If new emissions reduction strategies are identified, DEQ may require a source to update their BAER assessment. The costs for submitting an annual report, five-year BAER reports and updating a BAER assessment are expected to be the same or less than writing a new BAER assessment and more likely toward the lower range of costs for a BAER assessment.

BAER stationary sources and reducing greenhouse gas emissions

Under these proposed rules, stationary sources that are required by DEQ to conduct a BAER assessment would need to implement any emission reduction strategies that are included in a BAER, if DEQ issues a BAER order. In setting requirements for each BAER stationary source, DEQ can consider strategies to reduce covered emissions that are available, feasible, and cost-effective for that individual source. DEQ expects that accounting for site-specific considerations will mitigate the costs for a given BAER stationary source, and therefore mitigate the overall costs of the program. The costs of complying with the proposed program will likely vary from one entity to another, depending on the business and the strategies DEQ requires of each covered stationary source to reduce covered emissions and comply with the CPP 2024 requirements.

Each source will have to implement the required strategies from a DEQ-issued BAER order in order to comply and these strategies will reduce covered emissions. Costs to implement strategies that reduce greenhouse gas emissions will vary by strategy, business, and industry. Strategies to reduce emissions vary and can include fuels, processes, equipment, technology, systems, actions, and other methods and techniques, such as business practices or other alterations to operations to result in greenhouse gas emissions reductions. Some example industry types that may be impacted by the CPP 2024 proposed rules include, but are not limited to:

- Cement manufacturing
- Iron and steel mills
- Polystyrene foam product manufacturing
- Semiconductor and related device manufacturing

As part of CPP 2021 program development, DEQ contracted with ICF to analyze potential program options to implement a declining cap on emissions from the use of fossil fuels in commercial, industrial and residential settings in Oregon. While the assumptions for these modeling scenarios were not identical to these proposed rules, the study included several key program elements, such as significantly declining emission caps on fossil fuel, different point of

regulation for natural gas, and the option for covered fuel suppliers to use CCIs, which make this analysis informative for these CPP 2024 proposed rules. As part of the study, ICF assumed some cost ranges to reduce emissions from industrial stationary sources based on external studies. The estimated costs for a given source to reduce greenhouse gas emissions, based on various strategies and industries, ranged from $47 to $190 (2020 dollars) per metric ton of emissions reduced. The low estimate is based on EPA's Global Non-CO2 report and may represent some costs to reduce emissions for polystyrene foam product manufacturing. The high estimate is based on the McKinsey and Company marginal cost abatement study and may represent some costs to reduce emissions for cement manufacturing. These costs can be assumed to account for equipment, supplies, labor and increased administration required for businesses to comply. These costs also represent net present value and therefore account for cumulative emissions reductions achieved across a given time period from that study, rather than a cost for a particular snapshot in time. These costs do not necessarily represent a potential direct cost to a BAER stationary source, but rather represent the total cost per metric ton to achieve emissions reductions. Different costs may be borne by different parties, depending on the strategy, and the BAER stationary source may pass through some costs to consumers of its products. The cost range may be higher or lower, depending on facility-specific conditions, business decisions, and technological advancements over time.

The cost of compliance for a BAER stationary source will depend on the actions and strategies required in the BAER order. There may be instances where a BAER order does not require a source to take any actions because they may be determined to achieve the best available emissions reductions at that time. In these cases, there would be no cost to reduce emissions.

There could be negative economic effects on a regulated business if the CPP 2024 proposed rules were to result in curtailed production or closure in response to these requirements. It is possible that operations could shift to an area outside of Oregon that is not subject to this regulation, which is sometimes referred to as leakage of business or greenhouse gas emissions. Some CPP 2024 rulemaking advisory committee members noted that this was higher risk for businesses and industries that faced out-of-state competition and had higher energy costs.

The BAER approach does not limit or curtail production, but requires the implementation of strategies, practices and technologies to maximize emissions reductions. DEQ does not have additional information to estimate the potential or economic impacts of leakage but recognizes the negative economic impacts of business and job loss that could occur, despite proposed provisions to allow covered entities flexibility.

Potential impacts to stationary sources: EITE sources

Administration, permitting, reporting, and recordkeeping

DEQ is proposing to require covered EITE sources apply for a CPP permit addendum, report information to demonstrate compliance, and retain records of reported information for seven years. The costs of complying with the proposed CPP 2024 vary from one entity to another, depending on existing reporting and recordkeeping activities. All stationary sources that would be a covered EITE sources in these proposed rules are already reporting to DEQ's Greenhouse Gas Reporting Program and have DEQ air permitting requirements, and therefore may already have staff available to take on new reporting and permitting requirements. The recordkeeping

requirement may result in additional costs for some EITE sources if they need to add capacity to their existing systems in order to retain additional records required for the proposed CPP 2024.

EITE sources may experience a fiscal impact due to these requirements, but DEQ does not have any specific information to quantify all costs associated with these requirements. EPA has estimated costs to entities for tracking and reporting greenhouse gas emissions in the Regulatory Impact Analysis for the Mandatory Reporting of Greenhouse Gas Emissions, Final Rule (GHG Reporting). EPA has estimated these costs as ranging from $0 to $6,854 per year. The higher end of the range is based on labor, recordkeeping, and reporting costs for the relevant industry. DEQ does not have additional information to determine the precise costs and acknowledges that it could be different than as estimated in this report from EPA. DEQ notes that if the costs were twice as high as the EPA estimates, the costs could range from $0 to $13,708.

EITE sources and reducing greenhouse gas emissions

Covered EITE sources are proposed to be regulated similar to fossil fuels suppliers in that they will be distributed compliance instruments, must demonstrate compliance by turning in compliance instruments to meet their established compliance obligation in each three-year compliance period, and may use any combination of the compliance options discussed above for covered fuel suppliers. While DEQ does not have the necessary information to assess these costs of reducing greenhouse gas emissions for EITEs, some estimates for reducing natural gas emissions were included above in the discussion for covered fuel suppliers. During the CPP 2024, rulemaking advisory committee members who were representatives for EITE sources commented that EITE sources would prefer to have more direct control over emissions associated with natural gas supplied by utilities and preferred direct regulation.

EITE sources commented that being energy intensive and trade exposed industries there were greater negative economic impacts of the declining emission cap to their industries and work force and the possible shift of operations to an area outside of Oregon. For the CPP 2024 proposed rules DEQ has proposed a different emission reduction approach for EITE sources than in the CPP 2021 program. DEQ is proposed that EITE source be distributed compliance instruments equal to 100% of their historical emissions for the first compliance period. DEQ propose to develop an approach to transition to distributing compliance instruments to EITEs using an emissions intensity target in later compliance periods. DEQ anticipates that will result in less potential fiscal impacts to EITEs.

Enforcement

There are costs related to being involved in an enforcement action that includes correcting the violation and the payment of civil penalties, if assessed. The enforcement rule changes would not have an economic impact on covered entities unless they violate the program rules.

Statement of Cost of Compliance

State agencies

DEQ staff will implement the program and provide assistance to covered entities about how to comply with program rules. DEQ staff will need to select Equity Advisory Committee members and provide outreach and assistance to members of the public and organizations interested in the CCI portion of the program. DEQ staff will need to select a CCI entity or entities and provide

adequate oversight and administration. DEQ staff will need to review BAER assessments and determine what if any actions are included in a BAER order for the BAER stationary sources. Implementing the CPP 2024 proposed rules will require DEQ to collect new data and information from EITE sources.

Local governments

The CPP 2024 proposed rules do not impose any direct fiscal or economic effects on federal, state, or local agencies or tribal governments. However, federal, state, and local agencies and tribal governments are indirect consumers of fuels and goods. The indirect impacts of the CPP 2024 on government entities will be the same as on other consumers of transportation fuels, natural gas, and propane. See the discussion on the potential impacts to the Public below.

Local or tribal government representatives, such as city or county health staff, planning staff, and other officials, may also be impacted by the need to participate in meetings related to program implementation. This may include time to research and understand potential air quality concerns, program regulations, and time spent attending meetings. DEQ is not able to quantify these fiscal impacts but recognizes that time spent may affect local or tribal government budgets for travel or other expenses.

Public

While the public would not incur any direct fiscal impacts associated with the CPP 2024 proposed rules, DEQ is including a discussion of potential indirect impacts to the public.

DEQ recognizes that as covered entities comply with the program, there will be indirect impacts, both potential costs and benefits, to consumers and businesses throughout Oregon. These impacts will change over time. DEQ does not have specific information to quantify these indirect impacts. DEQ recognizes that compliance costs for fuel suppliers likely will be passed on and may disproportionately impact businesses and industries that face out-of-state competition and are more reliant on natural gas. DEQ has not proposed to regulate end users for emissions associated with fossil fuels but has proposed that EITE sources be directly regulated for natural gas emissions so they can better control emission reduction strategies and potential costs. Disproportionate indirect impacts also could be felt by environmental justice communities that have difficulty transitioning to clean energy sources, and that are less resilient to price impacts. These communities include communities of color, communities experiencing lower incomes, tribal communities, rural communities, coastal communities, communities with limited infrastructure and other communities traditionally underrepresented in public processes and adversely harmed by environmental and health hazards, including seniors, youth and persons with disabilities.

Potential climate change impacts

Climate change caused by greenhouse gas emissions is having detrimental effects on the overall public health, safety and welfare of Oregonians, and there are costs associated with climate inaction. DEQ recognizes the scope of these costs, although this fiscal statement does not quantify the costs and benefits associated with climate change and public welfare.

Greenhouse gas emissions reductions achieved from the CPP 2024 proposed rules that decrease climate change risks could create positive economic benefits and improvements in public welfare statewide. These benefits may include avoidance of future state costs to mitigate

or adapt to impacts of climate change, such as the impact of extreme heat and the impacts of severe drought on agricultural or other natural resource sectors. DEQ does not have additional information to estimate the specific costs of climate change inaction in Oregon.

Impacts to consumers and businesses that are not directly regulated

Members of the public and businesses purchase transportation fuels, natural gas and propane, and other goods for their use. The CPP 2024 proposed rules are likely to affect the prices of these commodities as fuel suppliers take actions to comply. Impacts will vary for the residential, commercial, and industrial sectors depending particularly on how intensively people currently use fossil fuels.

Examples of potential impacts may include:

- Fuel costs are likely to change. These may be cost increases or, if clean alternative fuels that reduce emissions are more cost-effective than the fossil fuels they would replace, then the retail fuel prices may decrease. In addition, if businesses experience price changes, they likely will pass on these changes to their customers.
- If a covered fuel supplier acquires compliance instruments by paying for them in a trade, or choosing to earn CCI credits, then these costs likely will be passed on to customers. For example, businesses that are not directly regulated may use fuels, such as natural gas, to power operations. These businesses could see an increase in the cost of fuel as a result of the regulation of their fuel suppliers.
- If clean technologies that reduce emissions are less cost-effective than the fuels or existing operations they would replace, then the price of goods for consumers could increase.
- Implementation of CCI projects may reduce costs to some. For example, if CCI credits are used to weatherize a building the heating costs to the occupant may be reduced even if the cost per unit of natural gas or propane used for heating increases.

During the CPP 2021 rulemaking, DEQ received comments that included macro-economic impacts of significantly reducing emissions from fossil fuel used in industrial, residential and commercial settings. carried out by Energy Strategies, LLC and RECON Insights, LLC. While the assumptions used in this analysis are not identical to these proposed rules, key program elements such as the use of CCIs and a significant emissions reduction trajectory, make the cost impacts included in this analysis, adjusted for inflation, informative for these proposed rules. This analysis projected that the CPP 2021 program would result in higher prices for gasoline, diesel and natural gas. The projected increases were generally greater after 2035. For gasoline, the report stated that "the CPP could add $0.10 to $0.36 per gallon to the cost of motor gasoline, between 2025 and 2050", representing a three to seven percent increase in the cost of a gallon of gasoline by 2050. A similar range of potential cost increases was projected for diesel.

As a general comparison, DEQ notes that to date the cost impacts of the Clean Fuels Program have been modest, and that the analyses conducted for the Clean Fuels Program Expansion 2022 rulemaking indicated that the costs of renewable and lower carbon fuels were declining relative to fossil fuels as production volumes, such as for renewable diesel, continues to increase.

DEQ also notes that the CPP 2021 program was in effect for two years before it was invalidated. Though liquid fuels and propane suppliers regulated by that prior program had not yet demonstrated compliance for that program's first three-year compliance period, 2022-2024, as a whole those fuels suppliers were reducing emissions faster than the applicable emissions cap for those years. Those emissions reductions were occurring as the state's economy continued to rebound from the global pandemic, and though DEQ had yet to conduct a program evaluation, there were no immediate obvious shocks to the supply of those fuels in the state.

Increased use of biomethane, demand response, increased electrification, hydrogen, and future technologies can all drive down demand for natural gas and support compliance for natural gas utilities. However, DEQ acknowledges that despite greater clarification around the use of book and claim accounting to report the use of biomethane in the Climate 2023 rulemaking, the more limited availability of biomethane (relative to renewable transportation fuels) means that there is a greater potential for price impacts.

For natural gas, the Energy Strategies, LLC and RECON Insights, LLC report projected a larger price increase, peaking at just under 60 percent in 2040, after which time the degree of increase relative to the reference case is projected to decline. DEQ believes that a similar range of cost impacts, adjusted for inflation, could be applicable to CPP 2024.

Recognizing these uncertainties, DEQ included in the CPP 2024 proposed rules that if the cost of gasoline, diesel or natural gas in Oregon increases year-over-year by an amount that is more than twenty percent higher than the change in cost for the same fuel over the same period in each of the states adjacent to Oregon (not including California), DEQ will investigate and report on the cause(s) to the EQC. In these circumstances, the EQC could order a deferral of compliance for a limited period of time, change caps and distribute additional compliance instruments, or take other actions to avoid economic impacts and provide for a smoother transition to clean energy sources.

Potential impacts to Oregon's economy

Price changes will affect the economy as businesses and other consumers adjust to changes in the costs of fuels or goods, as discussed above. Businesses and consumers that are able to transition to lower carbon energy sources sooner may realize savings, while those that have difficultly transitioning may experience larger increases in costs.

As part of CPP 2021 program development, DEQ contracted with ICF to analyze the macroeconomic impacts of potential program options to implement an emissions cap from the use of fossil fuels in commercial, industrial and residential settings in Oregon. While the assumptions for these modeling scenarios were not identical to these proposed rules, the study included several key program elements, such as significantly declining emission caps on fossil fuel, different point of regulation for natural gas, and the option for covered fuel suppliers to use CCIs, which make this analysis informative for these CPP 2024 proposed rules.

Across multiple program design scenarios, ICF concluded an emissions reduction program of this type could significantly reduce greenhouse gas emissions while maintaining the overall health of the economy. While changes were small as compared to the size of the economy, the study showed net positive trends for gross state product, income, and jobs. Net employment changes in 2050 were projected between 14,100-19,700 jobs. Net gross state product impacts in 2050 were projected between 1,350 to 1,730 ($Mil)($2020) and net income impacts in 2050

were projected between 820 and 1,100($Mil)($2020). Reduced fuel costs were found to outweigh costs of investments, with the trend increasing over time. This increased personal income and allowed for more spending throughout the economy. Investments in clean transportation were found to result in consumer fuel and energy cost savings.

As noted above, as part of the CPP 2021 development DEQ received comments which included a macroeconomic analysis conducted by Energy Strategies, LLC and RECON Insights Group, LLC on potential CPP impacts. This analysis found potential macroeconomic impacts during the first half of the program to be generally minor, with most significant negative impacts after 2035. This study found different job impacts compared to the ICF study, with the most impacted industries being petroleum and natural gas suppliers as well as certain industries that are more reliant on natural gas, such as chemical, food, and wood products and pulp and paper manufacturing. Despite negative job impacts to certain industries, the broader manufacturing sector overall was shown to have economic gains through 2050. For the CPP 2024 proposed rules, DEQ has proposed for EITE sources to be directly regulated for emissions from natural gas use and to transition to a declining emissions intensity target. DEQ believes this might allow these sources to better manage emission reductions and further mitigate potential business leakage while continuing to support emission reductions in Oregon.

Both the ICF and Energy Strategies, LLC and RECON Insights Group, LLC studies used a contribution amount to earn CCI credits to estimate potential costs for regulated entities, but the reinvestment of CCI funds in the state's economy was also not estimated nor included in these studies. Also, both studies were based on available information and current technology at the time they were prepared. As we have seen in the electricity and renewable fuels sectors, technology will change over the next thirty years. As noted above, technological change will be particularly important in the arena of natural gas, both in terms of renewable natural gas and hydrogen as alternatives to conventional fossil gas.

Potential positive economic impacts

Members of the public may also see economic benefits related to the creation of new green jobs, including through implementation of approved projects that receive community climate investment funds. The implementation of these projects may require hiring and training new staff or contractors. DEQ is not able to quantify the fiscal impact of these potential new green jobs.

DEQ cannot quantify specific potential fiscal impacts related to installation of more efficient technology throughout Oregon as a result of the CPP 2024 proposed rules because compliance with the program is not prescriptive. However, there may be positive economic impacts. For example, according to Brennan Borlaug, et al., an electric vehicle may save its owners between $11,000 and $14,000 in fuel costs over the expected life of the vehicle, and the US Department of Energy estimates that in Oregon, the per-mile cost to drive an electric vehicle may be roughly one third of the per-mile cost of gasoline. Additionally, in 2016 the American Council for an Energy-Efficient Economy estimated that high-efficiency electric heat pumps could save Oregon consumers approximately $2,000 to $3,000 over the systems' lifetimes when compared to gas furnaces. Modeling for the California Energy Commission in 2019 found that electric heat pumps could be approximately 80 percent less expensive to operate than a gas furnace with renewable natural gas.

Community climate investments may encourage these types of technologies throughout Oregon. The types of projects and communities that may be impacted by this are not yet determined, as DEQ will need to re-establish an Equity Advisory Committee and select a CCI third party entity or entities or entities. However, a project that improves energy efficiency in low-income households may create economic benefit for those households. This portion of the program also has the opportunity to bring monetized benefits to environmental justice communities, though DEQ is not able to quantify the fiscal impact on project impacts or cost savings related to implementation of projects using CCI funds.

Potential negative economic impacts

The proposed program could affect the public if regulated businesses alter the price of goods and services in response to the cost to comply with the CPP 2024 proposed rules. For example, consumers could experience price increases for fuel such as the cost of a gallon of gasoline at a gas station or the cost of natural gas for a residential or commercial customer. Estimating projected retail prices is complex and relies on a number of assumptions and policies. It is also important to note that DEQ is not an economic regulator and cannot set requirements for how regulated businesses do or do not alter their retail prices of goods or fuels. DEQ did not estimate impacts to the public on the costs of goods or fuels.

For the CPP 2024 rulemaking, utility advisory committee members also provided projected changes to rates and/or customer bill impacts. These projections make a range of assumptions, including that the utility continues to be the point of regulation for gas supplied to EITE stationary sources. One utility projected estimated monthly percentage bill impact increase compared with current bills for residential customers at 34% and 43% percent for 2025 and 2030, 38% and 48% for commercial customers, and 41% and 51% percent for industrial customers. Another utility projected rate increases for residential and small commercial customers for a normal weather year as 5.2% for compliance period 1, 16.6% for compliance period 2 and 26.9% for residential customers and 6.6%, 20.6% and 32.2% for small commercial customers.

The CPP 2024 proposed rules prioritize the investment of any CCI funds for the benefit of environmental justice communities. By accelerating the transition of residential, commercial, industrial, and transportation-related uses of fossil fuels to lower carbon sources of energy, CCI projects have the potential to reduce potential negative economic impacts from fuel price increases. It is worth noting that the studies referred to this section did not analyze the potential benefits from reinvestment of CCI funds.

The proposed program could have negative economic effects on the public if businesses providing jobs and contributing to local economies were to curtail production or close in response to regulatory requirements. These operations could shift to an area outside of Oregon that is not subject to this regulation, referred to as leakage. DEQ recognizes that employment plays a key role in public health, and that negative economic impacts through job loss could occur despite proposed provisions to allow business flexibility in an effort to decrease the chances of business closures or employee layoffs in direct response to regulations. DEQ does not have specific information to estimate these costs. Provisions included in the proposed CPP 2024 to help mitigate leakage include the BAER approach for covered stationary sources and regulating EITE sources.

Potential positive health impacts

Environmental justice communities are disproportionately burdened by the effects of climate change, air contamination, and by energy costs. The proposed CPP 2024 is intended to reduce greenhouse gas emissions to address climate change and support reductions of co-pollutants, such as toxic air contaminants and criteria pollutants. Emissions reductions achieved from the program could decrease co-pollutant health risks and create positive economic benefits and improvements in public health and welfare statewide. DEQ does not have specific information to quantify all costs or benefits associated with public welfare.

The proposed CPP 2024 prioritizes the spending of CCI funds on projects that reduce greenhouse gas emissions, reduce other air contaminants emissions, promote benefits for environmental justice communities, and accelerate the transition to lower carbon fuels. As a result, CCI projects may support positive health impacts for Oregon communities. For example, CCI funds may be used to support vehicle electrification, which may reduce exposure to particulate matter for communities near transportation corridors.

DEQ contracted with ICF to analyze the public health impact of potential program options to implement a declining cap on emissions from the use of fossil fuels in commercial, industrial, and residential settings in Oregon. While the assumptions for these modeling scenarios were not identical to these proposed rules, the study included several key program elements, such as significantly declining emission caps on fossil fuel, different point of regulation for natural gas, and the option for covered fuel suppliers to use CCIs, which make this analysis applicable to CPP 2024 proposed rules. Across multiple potential program design scenarios, ICF concluded that programs that sets a declining limit on these emissions could significantly reduce statewide adverse health impacts due to changes in criteria pollutant emissions from on-road mobile sources and other sources. The cumulative monetized value of public health benefits of a program that started in 2022 to 2050 could be up to $2.29 billion (2020 dollars). This analysis was a conservative estimate of the potential health benefits, as it did not incorporate all potential benefits. For example, it analyzed reductions in the co-pollutants of particulate matter and its precursors but did not capture the benefits of reductions of other co-pollutants, such as air toxics. The model monetized several health outcomes, such as avoided heart attacks and hospital visits, but did not capture all health outcomes that may be affected by air contamination, did not capture health outcomes related to CCI projects, and did not capture indirect health outcomes, such as adverse health impacts from extreme weather cause by climate change.

Community climate investment entities

Non-profit organizations approved by DEQ to be community climate investment entities will be authorized to receive funds from covered fuel suppliers and EITE sources and use those funds to create or expand projects that reduce greenhouse gas emissions. Participation as a CCI entity is voluntary, as are contributions by covered entities to an approved CCI entity.

CCI entities may benefit from the proposed program by an increase in opportunities to participate in work to reduce greenhouse gas emissions and to develop projects that will particularly benefit Oregon environmental justice communities. Project implementation costs incurred would be supported by the CCI funds received from covered fuel suppliers and covered EITE sources, along with administrative and reporting costs related to project implementation.

Large businesses – businesses with more than 50 employees

Based on Greenhouse Gas Reporting Program data, DEQ estimates that approximately 72 large businesses may be directly affected by these rules. The impacts described in the Cost of Compliance section above apply to:

- Large businesses that are suppliers of liquid fuels and propane that are subject to the emissions cap requirements may incur costs described in the covered fuel suppliers' subsection above. DEQ estimates there are approximately 46 such businesses.
- Large businesses that are natural gas utilities that are subject to the emissions cap requirements may incur costs described in the covered fuel suppliers' subsection above. DEQ has identified 3 such businesses.
- Large businesses that are permitted air contamination sources that are covered stationary sources subject to BAER may incur costs described in the stationary sources" subsection above. DEQ estimates there are approximately 11 such businesses.
- Large businesses that are permitted air contamination sources that are EITE sources may incur costs described in the stationary sources' subsection above. DEQ estimates there are approximately 20 (three of which are also subject to the BAER) such businesses.

Small businesses – businesses with 50 or fewer employees

ORS 183.336 - Cost of compliance effect on small businesses

Based on current Oregon Department of Employment data and Greenhouse Gas Reporting Program data, DEQ estimates that approximately 5 small businesses may be directly affected by these rules. The impacts described in the covered entities section above apply to:

- Covered fuel suppliers subject to the proposed declining cap on emissions requirements:
  - DEQ estimates that with declining thresholds of applicability over the first nine years of the program, there are approximately 5 small businesses that may become covered fuel suppliers supplying liquid fuels or propane.
  - There are no small businesses that are natural gas utilities.
- Covered stationary sources subject to BAER and EITE sources:
  - DEQ estimates there are no small businesses that are covered stationary sources.

a. Estimated number of small businesses and types of businesses and industries with small businesses subject to the proposed rule

Based on Oregon Department of Employment 2022 data and Greenhouse Gas Reporting Program data, DEQ estimates that approximately 5 small businesses may be directly affected by these rules. As shown below in Table 2, these are all suppliers of liquid fuels and/or propane.

Table 2 Small business counts by sector and at different thresholds		
Covered Sector	**Threshold**	**Count of Small Businesses**
Covered fuel suppliers that are liquid fuels and propane suppliers	Greater than or equal to 100,000 MT CO2e (covered beginning 2025)	3
	Greater than or equal to 50,000 MT CO2e and less than 100,000 MT CO2e (covered beginning 2028)	1
	Greater than or equal to 25,000 MT CO2e and less than 50,000 MT CO2e (covered beginning 2031)	1
Covered fuel suppliers that are natural gas utilities	N/A (covered beginning 2025)	0
Covered stationary sources (BAER and EITE stationary sources)	Greater than or equal to 25,000 MT CO2e (covered beginning 2025)	0

b. Projected reporting, recordkeeping and other administrative activities including costs of professional services, required for small businesses to comply with the proposed rule

Costs to small business associated with reporting, recordkeeping and other administrative
are discussed in the administration, permitting, reporting, and recordkeeping subsections of the covered fuel supplier section above.

c. Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule

Costs to small business associated with equipment, supplies, labor and increased administration are discussed in the reducing greenhouse gas emissions subsections of the covered fuel supplier section above.

d. Mitigation measures for small businesses

To mitigate small business impacts, DEQ is proposing points of direct regulation and emissions thresholds that will exclude the vast majority of small businesses from being subject to program requirements. For the approximately five small businesses that DEQ currently anticipates to be covered, the proposed declining threshold for inclusion over the first nine years of the program will delay some small business inclusion and provide more time to plan for emissions reductions and other compliance-related activities. Two

of the identified five directly regulated small businesses would not have compliance obligations before 2028. During the first year of the program, DEQ will distribute a one-time additional supply of compliance instruments to covered fuel suppliers which represent early emission reductions. This increased supply may make it easier for small businesses to trade for instruments if needed in the first compliance period.

For covered fuel suppliers, a proposed program-wide cap with compliance flexibility options allows each entity several options to comply with the program while mitigating costs. An entity could adjust its business to reduce emissions to remain below the declining threshold for inclusion, or, if regulated, could reduce emissions in alignment with DEQ's free distribution of compliance instruments. Alternatively, if it is more cost effective for a covered fuel supplier, the businesses can use the various compliance options that are further described in the covered fuel supplier section above, including:

- Three-year compliance periods
- The ability to bank or save unused compliance instruments for use in the future
- The ability to trade compliance instruments
- The option to earn CCI credits

DEQ expects that allowing for these program features and varying options for achieving compliance will likely mitigate costs, and allow covered entities, especially those that are small businesses, to determine the most cost-effective compliance pathway for their business. This will therefore also likely mitigate the overall costs of the program.

e. How DEQ involved small businesses in developing this proposed rule

DEQ convened a rulemaking advisory committee that included membership organizations that represent small businesses including but not limited to the Oregon Fuels Association and Oregon Business & Industry. DEQ also provided notice of this rulemaking to entities currently reporting to the Greenhouse Gas Reporting Program and Clean Fuels Program, which include a number of small businesses.

Documents relied on for fiscal and economic impact

Document title	Document location
Estimates of costs provided to DEQ	Oregon Department of Environmental Quality 700 NE Multnomah St. Suite 600 Portland OR 97232
Oregon Greenhouse Gas Reporting Program data	https://www.oregon.gov/deq/ghgp/Pages/GHG-Emissions.aspx
ICF Modeling Study on Program Options to Reduce Greenhouse Gas Emissions Summary Report August 2021	https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/GHGCR2021MSsummary.pdf
ICF Modeling Study on Program Options to Reduce Greenhouse Gas Emissions Assumptions, Data Sources, and Methods Report August 2021	https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/GHGCR2021MSMethodReport.pdf
RECON Insights LLC, Energy Strategies LLC, Macroeconomic Impact Analysis Oregon's Department of Enviromental Quality Proposed Climate Protection Program, October 2021	Oregon Department of Environmental Quality 700 NE Multnomah St. Suite 600 Portland OR 97232 https://www.oregon.gov/deq/EQCdocs/121621_AttachmentF_MacroReport.pdf
U.S. Interagency Working Group on Social Cost of Greenhouse Gases Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990, February 2021	https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf
U.S. EPA Global Non-CO2 Greenhouse Gas Emission Projections & Mitigation Potential: 2015-2050, October 2019	https://www.epa.gov/sites/production/files/2019-09/documents/epa_non-co2_greenhouse_gases_rpt-epa430r19010.pdf
McKinsey & Company Decarbonization of industrial sectors: the next frontier, June 2018	https://www.mckinsey.com/~/media/mckinsey/business%20functions/sustainability/our%20insights/how%20industry%20can%20move%20toward%20a%20low%20carbon%20future/decarbonization-of-industrial-sectors-the-next-frontier.pdf
Regulatory Impact Analysis for the Mandatory Reporting of Greenhouse Gas Emissions Final Rule (GHG Reporting), EPA, September 2009	https://www.epa.gov/sites/production/files/2015-07/documents/regulatoryimpactanalysisghg.pdf
Oregon Employment Department, 2022 small business statewide data	Employment Department 875 Union Street NE Salem OR 97311

Document title	Document location
U.S. Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product by State	https://www.bea.gov/data/gdp/gdp-state
America's New Climate Economy: A Comprehensive Guide to the Economic Benefits of Climate Policy in the United States	https://files.wri.org/d8/s3fs-public/americas-new-climate-economy.pdf
Brennan Borlaug, et al., Levelized Cost of Charging Electric Vehicles in the United States, Joule 4, 1470–1485, July 15, 2020	https://www.cell.com/joule/pdfExtended/S2542-4351(20)30231-2
U.S. Dept. of Energy, eGallon: What It Is and Why It's Important	https://www.energy.gov/articles/egallon-what-it-and-why-it-s-important
U.S Energy Administration Information, Oregon Natural Gas Industrial Price	https://www.eia.gov/dnav/ng/hist/n3035or3a.htm
U.S Energy Administration Information, Oregon Price of Natural Gas Delivered to Residential Consumers	https://www.eia.gov/dnav/ng/hist/n3010or3A.htm
Comparative Energy Use of Residential Gas Furnaces and Electric Heat Pumps	https://www.aceee.org/sites/default/files/publications/researchreports/a1602.pdf
The Challenge of Retail Gas in California's Low-Carbon Future – Technology Options, Customer Costs, and Public Health Benefits of Reducing Natural Gas Use	https://www.energy.ca.gov/resources/publications/energy-commission-publications?combine=CEC-500-2019-055&field_publication_classification_target_id=All&field_publication_program_target_id=All
DEQ and ICF analyses of the marginal abatement costs of various types of greenhouse gas reduction programs-Delaware Climate Action Plan Supporting Technical Greenhouse Gas Mitigation Analysis Report	https://documents.dnrec.delaware.gov/energy/Documents/Climate/Plan/DNREC%20Technical%20Report.pdf
DEQ and ICF analyses of the marginal abatement costs of various types of greenhouse gas reduction programs-Pennsylvania Climate Action Plan 2021	www.depgreenport.state.pa.us/elibrary/GetDocument?docId=3925177&DocName=2021 PENNSYLVANIA CLIMATE ACTION PLAN.PDF <span style%3D"color:green%3b"> <span style%3D"color:blue%3b">%28NEW%29 9/21/2023
DEQ and ICF analyses of the marginal abatement costs of various types of greenhouse gas reduction programs-Pennsylvania Climate Action Plan 2018	http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=1454161&DocName=2018%20PA%20CLIMATE%20ACTION%20PLAN.PDF%20%20%20%3cspan%20style%3D%22color:blue%3b%22%3e%28NEW%29%3c/span%3e
DEQ and ICF analyses of the marginal abatement costs of various types of	https://cedar.wwu.edu/wwuet/973/

Document title	Document location
greenhouse gas reduction programs-Electrification and Decarbonization for Mid-sized Municipalities: A Case-Study Marginal Abatement Cost Analysis	
Oregon Public Utility Commission Docket #: UM 2178, Natural Gas Fact Finding Per EO 20-04 PUC Year One Work Plan, utility modeling and presentations	https://apps.puc.state.or.us/edockets/docket.asp?DocketID=22869
GHG reduction and project cost estimates included in CCI entity application	Oregon Department of Environmental Quality 700 NE Multnomah St. Suite 600 Portland OR 97232
Climate Pollution Reduction Grant - Oregon	https://www.oregon.gov/deq/ghgp/pages/climate-pollution-reduction-planning-grant.aspx
Climate Pollution Reduction Grant – Washington	https://www.commerce.wa.gov/growing-the-economy/energy/infrastructure-investment-and-jobs-act/climate-pollution-reduction-grant-program/
Climate Pollution Reduction Grant – Utah	https://deq.utah.gov/air-quality/beehive-emission-reduction-plan
Washington CCA Auction Proceeds Report	https://ecology.wa.gov/air-climate/climate-commitment-act/auction-proceeds

Housing cost

As ORS 183.534 requires, DEQ evaluated whether the proposed rules would have an effect on the development cost of a 6,000-square-foot parcel and construction of a 1,200- square foot detached, single-family dwelling on that parcel. DEQ determined the proposed rules will have no impact on the supply of housing or land for residential development. The proposed rules will not impact the cost of labor or administration related to such development but could have an effect on development costs because they could indirectly affect the price of materials used for such construction. For example, the indirect impact on the price of materials could occur if covered entities subject to the proposed rules increase fuel prices and if the companies that manufacture construction materials, then pass through those increased costs in the price of their materials. As another example, the cost of cement used in the development could increase as a result of the proposed program. Because these impacts are indirect and depend on the individual decisions of multiple businesses before resulting in land development cost increases, DEQ is unable to estimate the amount of the increased costs.

Racial Equity Impact Statement

Longstanding systemic barriers built into government systems have left communities of color behind in accessing the programs and services that would offset the effects of history. As Oregon's demographics shift over time, governmental policies and practices have both a historic and current role in alleviating racial and other inequities. This statement focuses on how the Climate Protection Program 2024 proposed rules impact racial equity.

The Climate Protection Program proposed rules support racial equity by reducing greenhouse gas emissions from sources in Oregon, achieving co-benefits from reduced emissions of other air contaminants, and enhancing public welfare for Oregon communities, particularly environmental justice communities. Environmental justice communities include Oregon's communities of color and tribal communities along with other communities traditionally underrepresented in public processes, and adversely harmed by pollution and environmental and health hazards.

Communities of color in particular are disproportionately impacted by pollution from transportation, as these communities are often located near busy transportations corridors. So, reductions in greenhouse gases emissions and associated co-pollutants would have benefits for racial equity.

The proposed rules include the Community Climate Investments program. Under the program, regulated entities can choose to meet part of their compliance obligation by contributing funds to approved third-party CCI Entities to receive CCI credits. Emission reduction projects funded by these investments will be prioritized to benefit EJ communities and to be in and near these communities The proposed rules include requirements for CCI entities to meaningfully engage and center EJ communities in their processes and projects, track and report on all CCI funds and projects, and gain approval from DEQ on approved work plans.
Additionally, the proposed rules include an Equity Advisory Committee who will review all deliverables from the CCI entities and provide feedback on those deliverables including work plans, community engagement and capacity building, and best practices.

In the proposed rules, DEQ has significant oversight responsibility for the CCI program, including approving and contracting with third party CCI Entities, establishing and supporting the

Equity Advisory Committee, and supporting development of workplans informed by the priorities of a wide range of Oregon communities. This oversight is critical to maintaining the integrity of the program, achieving the predicted reductions, and ensuring transparency to program participants, interested parties, and policy makers. The proposed rules include a fee of up to 4.5% on all investments that would be paid to DEQ by each approved third-party CCI entity. DEQ anticipates this fee to have no negative or positive impact on racial equity.

The CCI program is being developed with extensive engagement with impacted communities to primarily impact environmental and natural resources issues, particularly the impacts on climate change on communities. The proposed rules promote economic and health benefits and reduce burdens in these communities. Investments are prioritized to help ensure all parts of Oregon enjoy the benefits of transitioning away from fossil fuels towards cleaner energy sources. Depending on the specific programs and projects and specific communities supported through the CCIs, there will be various racial equity impacts. A few examples include:

- Reduced energy burden and improve living conditions from weatherization projects.
- Increased access to clean transportation through electric car share and micromobility projects.
- Improved indoor air quality and access to heating and cooling through heat pumps.

The CCI program will be evaluated every two years, including:

- Review of the number and types of environmental justice communities being served by specific projects.
- Identified gaps in communities being served.
- Review of community engagement methods.
- Evaluation of emission reductions and equity goals with quantitative and qualitative data.
- Recommendation for further program goals and improvements. DEQ will share regular updates with community partners.

The proposed rules also have the potential for a negative indirect racial equity impact. To some degree, covered entities are expected to increase prices of fossil fuels to consumers as the compliance instruments allowing them to supply those fuels become scarcer over time. DEQ has de

DEQ convened a 26 person rules advisory committee representing diverse perspectives of interested parties throughout Oregon, including organizations that can speak to the unique challenges and concerns of Black, Indigenous, and People of Color communities in Oregon.

Environmental justice considerations

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, culture, education or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. DEQ is committed to incorporating environmental justice best practices into its programs and decision-making, to ensure all people in Oregon have equitable environmental and public health protections.

Climate change caused by anthropogenic greenhouse gas emissions has detrimental effects on the overall public welfare of the State of Oregon. Reducing greenhouse gas emissions and mitigating climate change will improve the overall public welfare of Oregon. In particular,

reducing greenhouse gas emissions will improve the welfare of environmental justice communities, reducing the environmental burden on those communities. The proposed Climate Protection Program rules are designed to reduce greenhouse gas emissions from sources in Oregon, achieve co-benefits from reduced emissions of other air contaminants, and enhance public welfare for Oregon communities, particularly environmental justice communities.

The program:

- Requires that covered entities reduce greenhouse gas emissions.
- Supports reduction of emissions of other air contaminants that are not greenhouse gases.
- Prioritizes reduction of greenhouse gases and other air contaminants in environmental justice communities.
- Provides covered entities with compliance options to minimize disproportionate business and consumer economic impacts
- Allows covered entities to comply with the Climate Protection Program requirements in part through contributing community climate investment funds to support projects that reduce greenhouse gas emissions and prioritize benefits for environmental justice communities in Oregon.

Environmental justice communities are communities of color, communities experiencing lower incomes, communities experiencing health inequities, tribal communities, rural communities, remote communities, coastal communities, communities with limited infrastructure and other communities traditionally underrepresented in public processes and adversely harmed by environmental and health hazards, including seniors, youth, and persons with disabilities.

Non-discrimination statement

DEQ does not discriminate on the basis of race, color, national origin, disability, age or sex in administration of its programs or activities.

Visit DEQ's Civil Rights and Environmental Justice page.