

Oregon Climate Protection Program: Modeling Study on Program Options

Question and Answer session
Oregon DEQ and ICF

April 28, 2021

Agenda

Time	Topic
9 a.m.	Welcome
9:05 a.m.	Meeting ground rules, procedures for asking questions
9:10 a.m.	Initial modeling policy scenarios results considerations
9:20 a.m.	Questions from advisory committee members
10 a.m.	Questions from advisory committee members and public
10:55 a.m.	Next Steps
11 a.m.	Adjourn

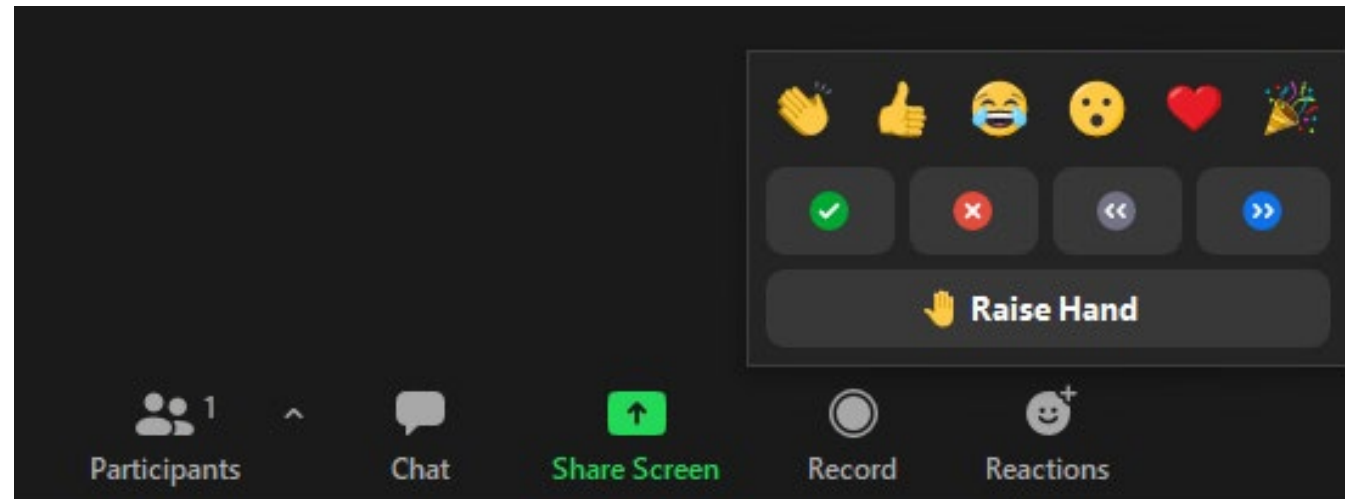
Participation Tips

Thank you for joining us today!

- Please join audio by either phone or computer, not both.
- RAC members: stay on mute when not speaking, and please join us on video if able
- Public: please stay on mute and please join us on video only when you're speaking
- For discussion, use "Raise Hand" button to get in the queue; if joined by phone press *9
- Say your name and affiliation before speaking
- Move around and take care of yourself as needed!
- For Zoom technical issues, send chat message to host

How to Raise Hand

Look for the Raise Hand in Zoom panel



Public Participation Protocols

- Public participation is welcome – thank you!
- Time for public questions, though primary purpose is RAC questions
- When asking questions, please respect time limits and ground rules
- For questions or comments not related to today's topic:
 - Send written comments to GHGCR2021@deq.state.or.us
 - Requested by April 30

DEQ and Kearns & West

Oregon DEQ

Colin McConnaha

Manager, Office of GHG Programs

Nicole Singh

Senior Climate Policy Advisor

Matthew Espie

Climate Policy Analyst

Lauren Slawsky

Climate Policy Analyst

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Sylvia Ciborowski

Senior Director / Facilitator

Modeling Analysis Study

- DEQ contracted with ICF for specialized modeling
 - Summary results include GHG emissions, monetized health benefits, economic metrics, qualitative co-benefits and equity assessment
- Modeling analysis objectives
 - Analyze options to inform overall program design and relationships between design elements
 - Provide information on directionality and magnitude of changes when considering program elements
- Scenarios do not represent final or complete program design proposals and not all program design elements are represented in the modeling

Modeling Analysis Study

- Rulemaking Page

www.oregon.gov/deq/Regulations/rulemaking/Pages/rghgcr2021.aspx

- Initial modeling policy scenarios results document (*updated April 27th*)
- Initial modeling scenarios assumptions & data sources document (*updated April 27th*)
- April 22nd RAC presentation with initial modeling policy scenario results

- Modeling Study

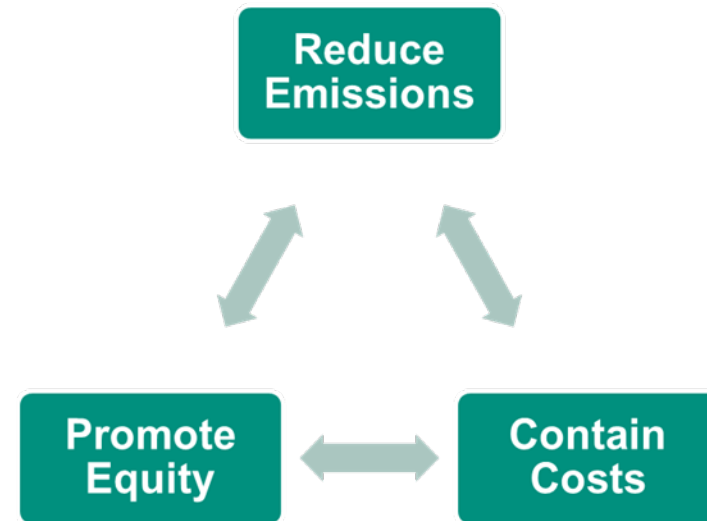
www.oregon.gov/deq/ghgp/Pages/modelingstudy.aspx

- Continue to discuss results at future rulemaking advisory committee meetings

DEQ Initial Reflections on Modeling

- Achieving significant emissions reductions
- Containing costs
- Promoting benefits and alleviating burdens for EJ and impacted communities

This is achievable



DEQ Initial Reflections on Modeling

- *CPP can result in dramatic reductions in GHG emissions while maintaining the overall health of Oregon's economy*
 - All three scenarios modeled at least 80% emission reductions by 2050
 - Emissions reductions are driven by transportation sector emission reductions
 - Other reductions are achieved with building energy efficiency, electrification, and renewable natural gas
 - Modeling does not factor in technological improvements that could produce even better results in the future
 - All three scenarios show very little overall macroeconomic change
 - Small changes to economy, but positive trends for GSP and income while small overall job impacts are well less than 1% of baseline jobs

DEQ Initial Reflections on Modeling

- Significant investments in clean transportation, followed by smaller investments in energy efficiency, and electrification
- Positive economic impacts are associated with investments in clean energy options and increasing bill savings over time
- Negative economic impacts come from losses in fossil fuel sector
- Don't account for some important benefits, including economic growth from improved human health, and CCI emissions reduction projects in Oregon communities
- All policy scenarios indicate increased co-benefits

DEQ Initial Reflections on Modeling

- *CPP can improve public health across Oregon by reducing emissions*
 - Reducing emissions reduces other co-pollutants that have localized adverse health impacts
 - Model only analyzes public health impacts of changes in emissions of particulate matter and its precursors (NO_x, SO₂, NH₃, VOCs)
 - All scenarios show significant reductions statewide in adverse health impacts
 - Cumulative monetized health benefit of approximately \$2 billion (2020\$)^{1,2}
 - Avoided mortality is a significant driver of health benefits

¹ Scenario 2 reduced exposure to air pollution from 2025-2050 that may be avoided statewide. High estimates, monetized at 3% discount. All monetary values discounted to 2022.

² COBRA valuation component aims to monetize public health benefits, not calculate healthcare cost savings. Many endpoints (e.g., mortality, acute bronchitis) are valued using non-market valuation based on willingness to pay (WTP) estimates. Endpoints for which WTP is not available, valuation is approximated using healthcare cost savings and lost productivity. The valuation estimates represent an approximate value residents of Oregon would place on avoiding the statistical cases of characterized endpoints; these estimates are not comparable with market impact estimates generated by the economic analysis component.

DEQ Initial Reflections on Modeling

- *Can be designed to promote equity*
 - All policy scenarios overall projected to benefit five identified communities of concern
 - *Communities of color*
 - *Low-income rural communities*
 - *Low-income urban communities*
 - *Tribal nations*
 - *Elderly populations*
 - Positive co-benefits and equity benefits
 - Urban low-income households and communities of color projected to experience the most benefits
 - CCI and reduction in adverse health impacts

DEQ Initial Reflections on Modeling

- Regulated sectors and emission reductions targets are important
- Allowance of compliance flexibility options like banking and CCIs played an important role in goals of emissions, costs and equity
- Banking used in all scenarios
- CCIs used to the almost fullest extent in scenarios
- CCIs and equity
 - Target projects to areas with communities of concerns
 - Can help support an equitable transition to low carbon future

Proposed Next Steps

Next steps:

- Q&A Session FAQ or summary document
- Continue to review modeling results at upcoming RAC meetings
 - RAC Meeting #5 May 25, 2021
 - RAC Meeting #6 June 17, 2021
- Submit written comments to GHGCR2021@deq.state.or.us
- RAC 4 comments requested by April 30th