

# Technical Workshop 1

## Program Scope

Design Scoping for a Greenhouse Gas  
Emissions Cap and Reduce Program

Aug. 19, 2020

# Introductions

## Oregon DEQ

**Colin McConnaha**

Manager, Office of GHG Programs

**Jason Eisdorfer**

Policy Advisor

**Lauren Slawsky**

Climate Policy Analyst

**Matthew Espie**

Climate Policy Analyst

**Chloe Brown**

Greenhouse Gas Programs Analyst

## Kearns & West

**Sylvia Ciborowski**

Senior Director / Facilitator

# Cap and Reduce

Executive Order 20-04 directives to EQC and DEQ:

## Sector-Specific Cap and Reduce Program

- Take **actions** necessary to cap and reduce GHG emissions consistent with science-based emissions reduction goals from sectors including:
  - Large stationary sources
  - Transportation fuels, including gasoline and diesel
  - All other liquid and gaseous fuels including natural gas

## Reports to Governor

- ✓ Submit a **preliminary report** to the Governor by May 15, 2020, regarding program options to cap and reduce emissions from the above sectors that can commence no later than January 1, 2022
- ✓ Submit a **final report** to the Governor by June 30, 2020

# Pre-Rulemaking Public Engagement Opportunities

## **Technical Workshops (August & September)**

Detailed discussions about specific policy design options, key issues, and solutions

## **Town Halls (October)**

DEQ presentation followed by public comment period

## **Additional Opportunities (Ongoing)**

- Submit written comment after meetings
- Focused stakeholder meetings to address specific issues of interest, as requested
- Briefings provided to and meetings with community organizations, as requested

# Technical Workshops

## Purpose

- Engage across-the-table discussions of program design features
- Seek opportunities to address issues of interest
- Identify areas for attention during the rulemaking
- Offer multiple, accessible options for comment

## Goals

- DEQ acquires useful information and perspectives
- Productive conversation on interests and issues related to the topic is facilitated across stakeholders
- Common understanding of priority issues, legal constraints, potential policy mechanisms and implications
- Allow opportunity to inform design and direction of rulemaking

# Today's Agenda

Time	Topic
9:00 a.m.	Welcome, Introductions, and Overview
9:15 a.m.	Input from Stakeholders Unable to Join the Entire Meeting
9:35 a.m.	Considerations for Greenhouse Gases for Inclusion
9:50 a.m.	Sectors and Sources Overview
9:55 a.m.	Considerations for Fuel Suppliers Sector
10:35 a.m.	Quick Break
10:40 a.m.	Considerations for Large Stationary Sources Sector
11:20 a.m.	Considerations for Electricity Sector
11:45 a.m.	Break for Lunch
12:15 p.m.	Considerations for Natural Gas Sector
1:00 p.m.	Emerging Issues and Remaining Questions
1:30 p.m.	Adjourn Meeting

# Meeting Ground Rules

- Honor the agenda
- Provide a balance of speaking time
- Listen to understand and ask questions to clarify
- Stay on mute when not speaking, and feel free to join us on video
  - For questions or comment, use “**Raise Your Hand**” button to get in the queue; if joined by phone, press \*9 to raise hand
  - When it is your turn to speak, the facilitator will call on you
  - Say your name and affiliation before speaking
  - Use the “Chat” feature for help troubleshooting any issues

The meeting will not be recorded. A summary will be posted to the cap and reduce webpage:

[www.oregon.gov/deq/ghgp/Pages/ghg-cap-and-reduce.aspx](http://www.oregon.gov/deq/ghgp/Pages/ghg-cap-and-reduce.aspx)

# Defining the Topic: Program Scope

**The sectors, sources, and types of emissions that may be covered under a cap and reduce program or programs administered by the Oregon Department of Environmental Quality**

- Which greenhouse gases?
- What types of fuels, activities and sources of emissions?
- Which entities are obligated to comply for those emissions?

## **Driven by:**

- Executive Order 20-04
- The Environmental Quality Commission's statutory authority to regulate certain pollutants and entities
- Policy goals, such as the overall greenhouse gas emissions reduction targets



# Up Now

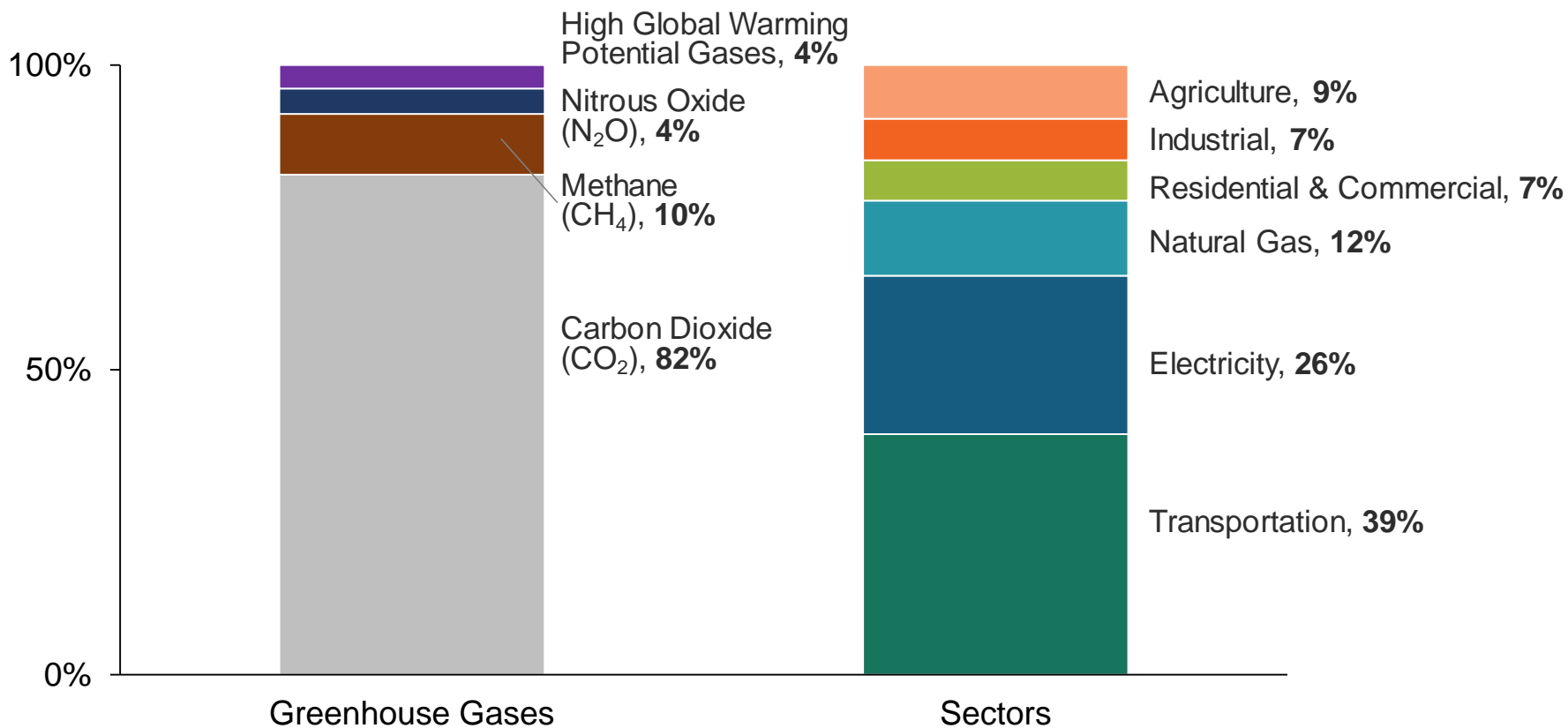
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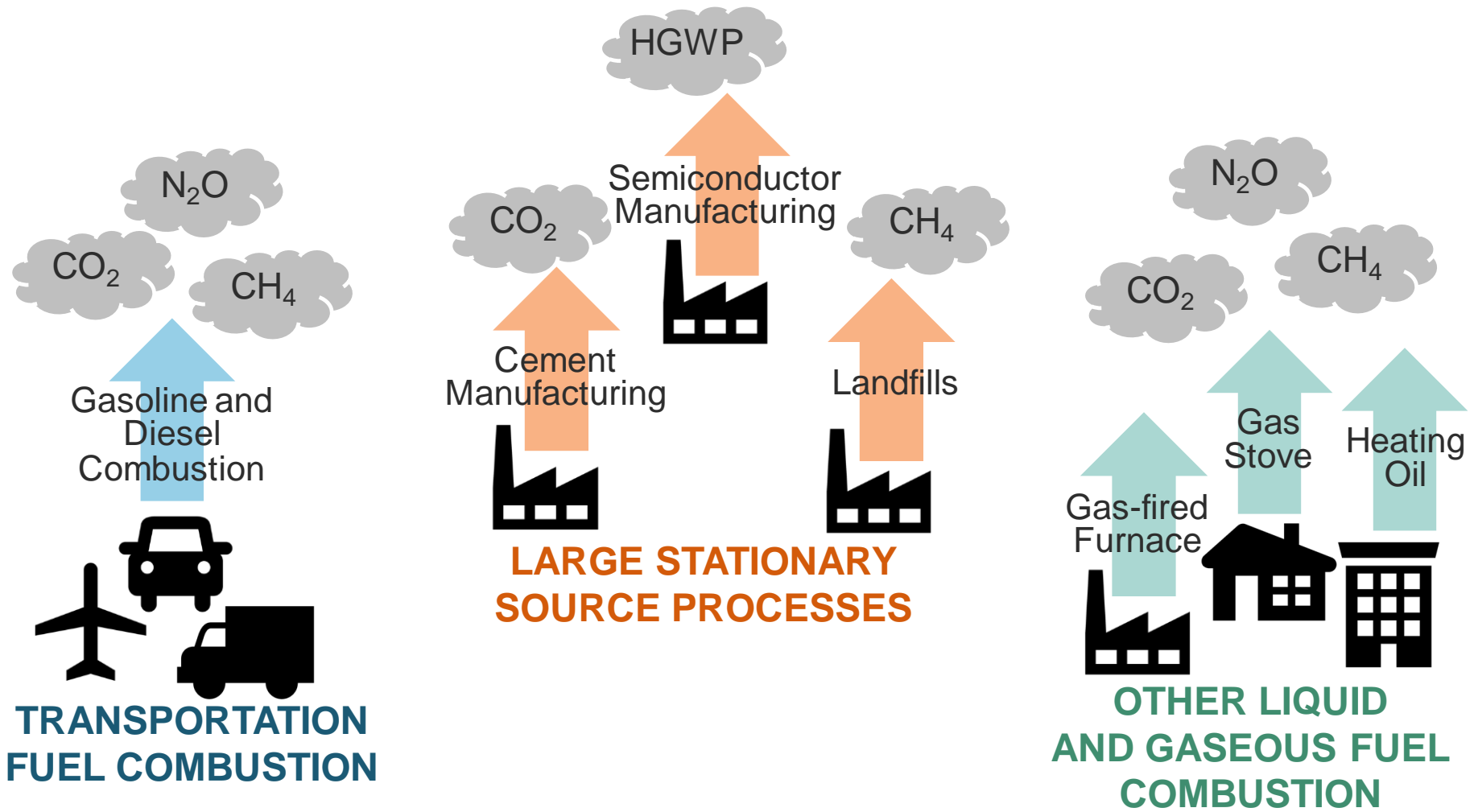
# Greenhouse Gas Emissions in Oregon

**64.6 Million** Metric Tons of Carbon Dioxide Equivalent in 2017



Source: Oregon DEQ, <https://www.oregon.gov/deq/aa/programs/Pages/GHG-Inventory.aspx>

# Different Processes Result in Different Pollutants



# Key Questions for Discussion

## Greenhouse Gas Emissions

- Which GHGs might be regulated? Why?
- Are there specific gases that should be considered for exemption?
- Which GHGs relating to industrial processes should be regulated at large stationary sources? Why or why not?

### **Keep in mind for final agenda item:**

- What issues have not yet been raised?
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# Overlapping Sectors and Sources

## Fuel Suppliers

- Motor gasoline
- Distillate fuel
- Residual fuel
- Aviation gasoline/jet fuel
- Non-road vehicles and equipment
- On-site industrial combustion
- Home heating
- Commercial heating

## Natural Gas

- Electricity generating facilities
- On-site industrial combustion
- Home heating
- Commercial heating

## Large Stationary Sources

- Electricity generating facilities
- Manufacturing/production
- Natural gas combustion
- Petroleum combustion
- Coal combustion
- Waste incineration
- Landfills
- Foams

## Electricity

- Power supplied in Oregon

## OTHER

- Wastewater
- Residential/commercial waste incineration
- Combustion byproducts
- Natural gas distribution
- Compost
- Agriculture
- Fertilization of landscaped areas
- Refrigerants, aerosols, solvents, A/C, fire protection

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# Fuels and Thresholds

- Oregon imports all non-natural gas fossil fuels used in the state
- The businesses importing fuels vary in size, fuel types, and annual volumes imported
  - This annual market variability must be considered for program scope and design
- Thresholds for inclusion directly connect to leakage risk
  - Emissions and business to other jurisdictions
  - Within Oregon for entities supplying fuels to keep them just below the threshold

Threshold MT CO <sub>2</sub> e	Share of Fuel Sector Emissions (26.1 Million MT in 2018)	Count of Suppliers
500,000	89%	6
25,000	99%	40
5,000	99.8%	59
<b>0 (state total)</b>	<b>100%</b>	<b>86</b>

**Note:** Examples for threshold comparisons do not account for totaling emissions between related entities under the ownership of a common parent company.



# Fuels and Compliance

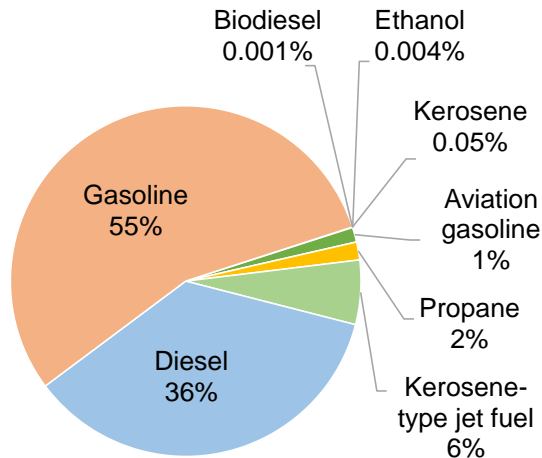
Cap and reduce may have compliance obligations based on fuels delivered (e.g. for all gasoline supplied in Oregon), fuel usage (e.g. transportation), or a combination

## Fuel Types

*versus*

## Fuel Uses

26.1 Million Metric Tons  
CO<sub>2</sub>e in 2018



- Transportation
  - On-road
  - Aircraft
  - Watercraft
- Non-road equipment
- Heating res./comm. buildings
- Etc.

**Note:** Total emissions and pie chart include anthropogenic emissions from fossil fuel combustion including CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. Biogenic CO<sub>2</sub> emissions from biodiesel and ethanol are not included..

# Key Questions for Discussion

## Fuel Suppliers

- Which fuels and activities result in emissions that should be regulated? Why?
- What tradeoffs are important when establishing emissions thresholds for inclusions?
- Which entities should be responsible for which sources of emissions and therefore might be covered? Why?
- Are there fuel types and/or fuel uses that should be considered for exemption?
- What Clean Fuels Program Considerations are there?

### **Keep in mind for final agenda item:**

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# Stationary Sources

- What is a stationary source?
  - Permitted air contamination sources (over 260)
    - Industrial manufacturers
    - Power plants
    - Natural gas compressor stations
    - Landfills
    - Institutional facilities
- What makes a stationary source “large”?
  - In the context of cap and reduce, the threshold for inclusion that is set in rule will determine this
- What emissions come from stationary sources?
  - On-site fuel combustion
  - Industrial processes

# Key Questions for Discussion

## Large Stationary Sources

- Which fuels and activities result in emissions that should be regulated? Why?
- What tradeoffs are important when establishing emissions thresholds for inclusions?
- Which entities should be responsible for which sources of emissions and therefore might be covered? Why?
- Are there facilities that should be considered for exemption?
- Should natural gas be regulated on-site at the user? Why or why not?

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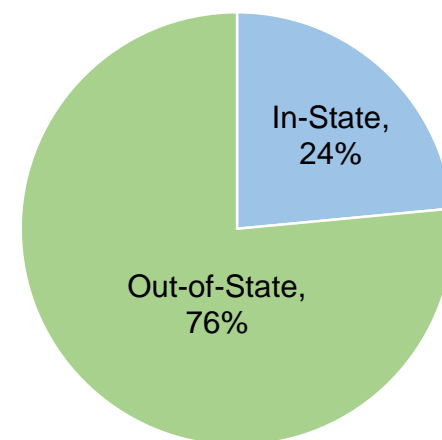


# Electricity Considerations

- Oregon is a majority importer of electricity
  - EQC does not have authority to regulate out-of-state emissions
- Emissions from the in-state generators (natural-gas fired) serving Oregon load are >95% associated with Portland General Electric
  - Regulation would mainly only impact PGE and their customers
- How the electric grid operates and current policies surrounding Oregon
  - Leakage risks

## Electricity Sector in Oregon

16.7 Million Metric Tons  
CO<sub>2</sub>e in 2018



# Key Questions for Discussion

## Electricity

- In an Oregon-only program, what are the benefits/risks of including in-state generators?
- What is your take on the level of leakage risk in Oregon for the electricity sector?

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**We will keep the webinar open and will pick up with the next agenda item at 12:20 p.m.**

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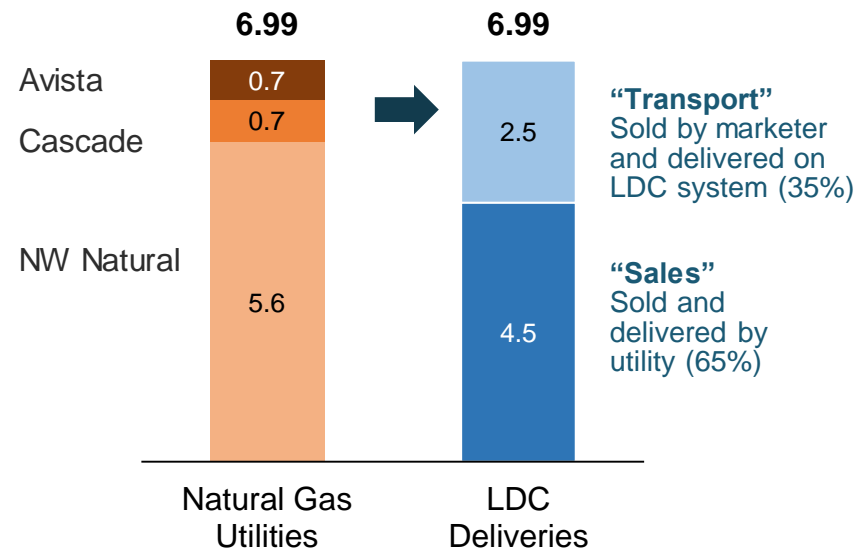
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# Natural Gas Point of Regulation

Even if on-site natural gas usage were to be regulated at large stationary sources, for remaining gas usage that would be regulated upstream, DEQ will need to determine whether to:

- Regulate utilities for sales and transport gas on the local distribution company system; or
- Regulate utilities for their sales gas and regulate marketers for the gas they procure that is transported on LDC system

**Natural Gas Emissions**  
Million Metric Tons CO<sub>2</sub>e  
(2018)



**Note:** Emissions shown do not account for total emissions from natural gas in Oregon and do not include emissions associated with electricity generating facilities using natural gas delivered on LDC system. Emissions associated with sales and transport estimated using U.S. Energy Information Administration data.

# Key Questions for Discussion

## Natural Gas

- Which entities should be responsible for which sources of emissions and therefore might be covered? Why?
- Should natural gas be regulated entirely at the utility (for transport and sales) or disaggregated to utility and gas marketers on that distribution system? Pros/cons?

### **Keep in mind for final agenda item:**

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# Key Questions for Discussion

## Emerging Issues and Remaining Questions

- What issues have been raised that should have continued discussions?
- What issues relating to this workshop topic were not raised that should be discussed?
- What issues remain or need further discussion that should be brought up during the rulemaking?



# Next Steps

- A summary of today's workshop will be posted to the cap and reduce website:  
[www.oregon.gov/deq/ghgp/Pages/ghg-cap-and-reduce.aspx](http://www.oregon.gov/deq/ghgp/Pages/ghg-cap-and-reduce.aspx)
- DEQ will announce upcoming meetings two weeks in advance of each meeting date. Meeting materials including issue brief, agenda, and slides will be posted to the website prior to each meeting. Announced meetings:
  - Workshop 2 on Program Stringency
    - Wednesday, Aug. 26, 9:00 a.m. – 1:30 p.m.
  - Workshop 3 on Alternative Compliance Options
    - Wednesday, Sept. 2, 9:00 a.m. – 1:30 p.m.
- Future public comment opportunities will be posted to the cap and reduce website

# Contact Us

- **Email:** [CapandReduce@deq.state.or.us](mailto:CapandReduce@deq.state.or.us)
  - Please submit any comments in relation to this workshop within the next week (by August 26)
- **Sign up for updates:**  
[www.oregon.gov/deq/ghgp/Pages/ghg-cap-and-reduce.aspx](http://www.oregon.gov/deq/ghgp/Pages/ghg-cap-and-reduce.aspx)
- **For alternative formats and materials in languages other than English:** 800-452-4011 or email [deqinfo@deq.state.or.us](mailto:deqinfo@deq.state.or.us)