Informational: Oregon Clean Fuels Program Updates

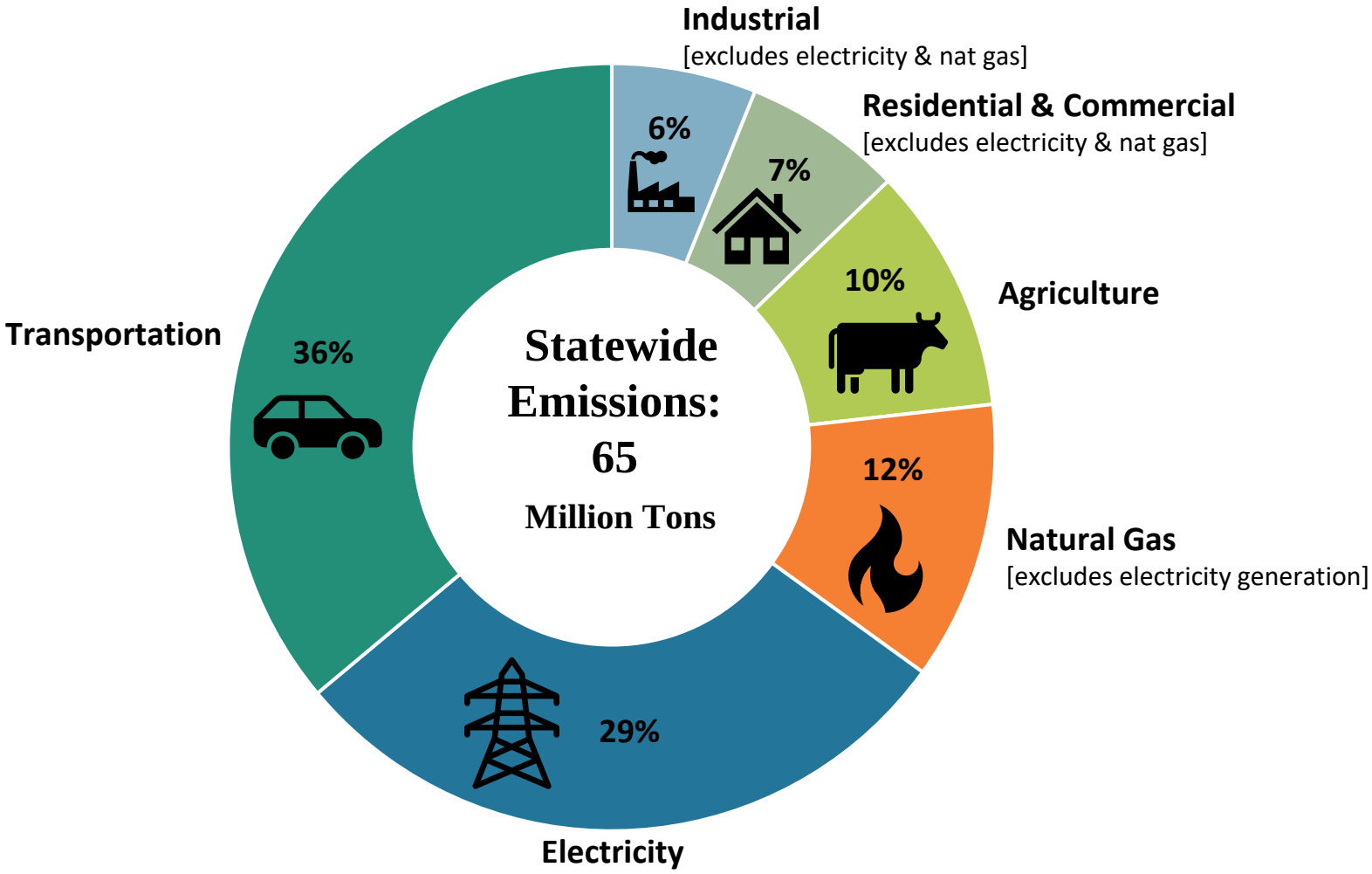
Oregon Environmental Quality Commission meeting

Item B

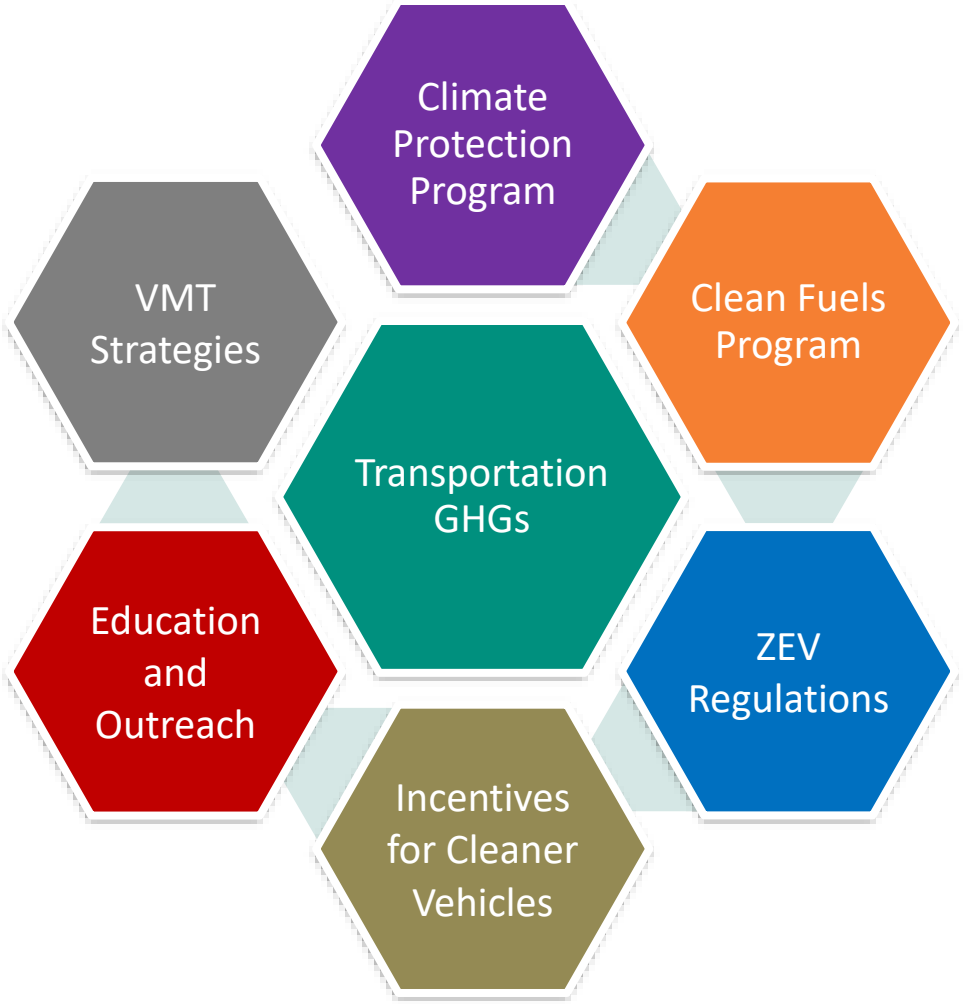
May 19, 2022

Colin McConnaha, Manager, Office of Greenhouse Gas Program
Cory-Ann Wind, Oregon Clean Fuels Program Manager

Oregon Greenhouse Gas Emissions

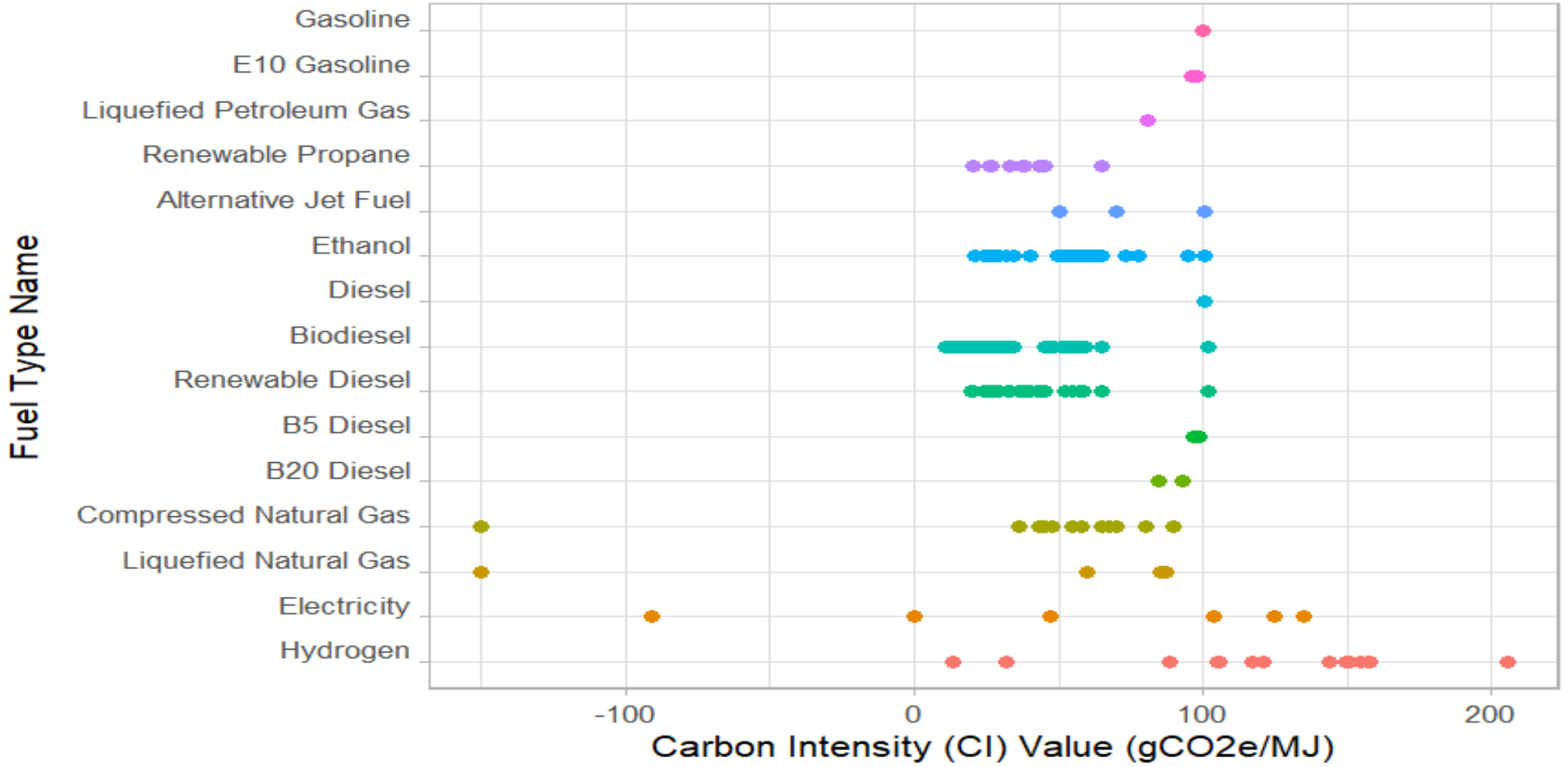


Decarbonizing the Transportation Sector

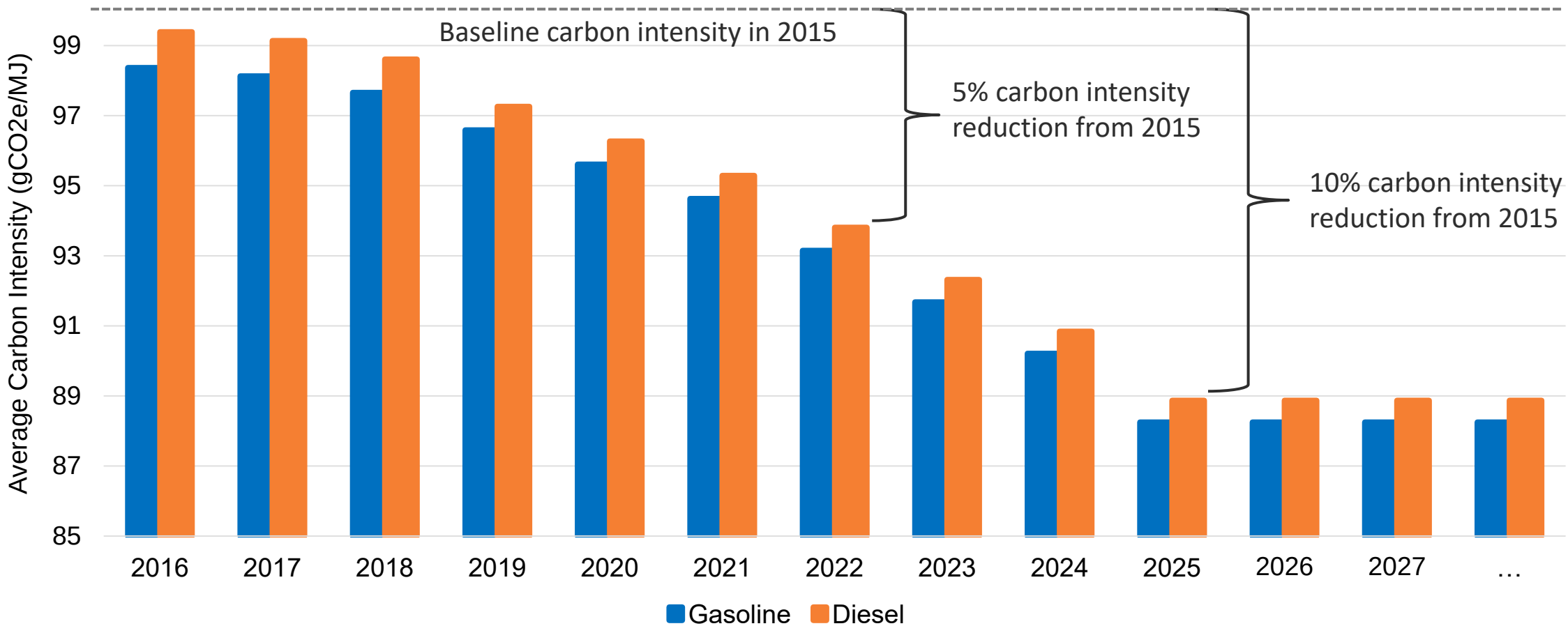


The Current Clean Fuels Program

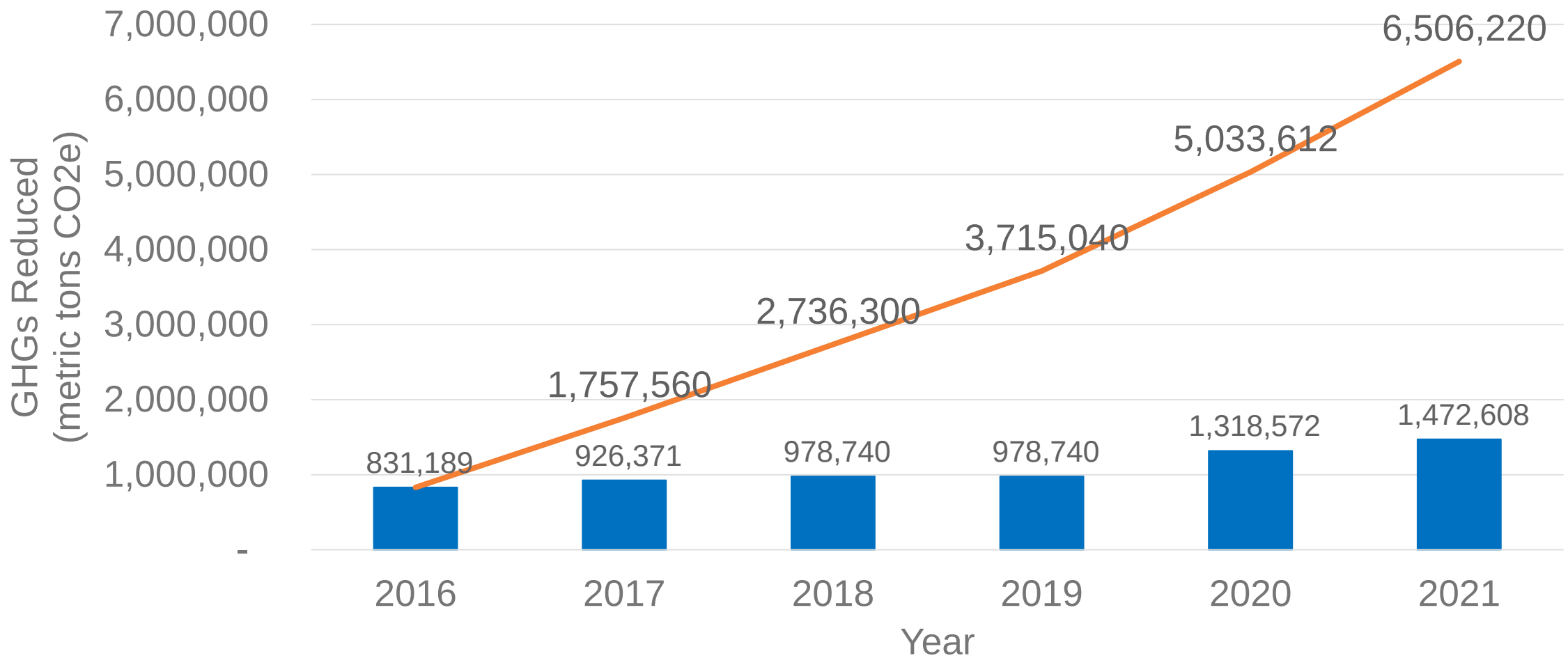
Clean Fuels Available in Oregon



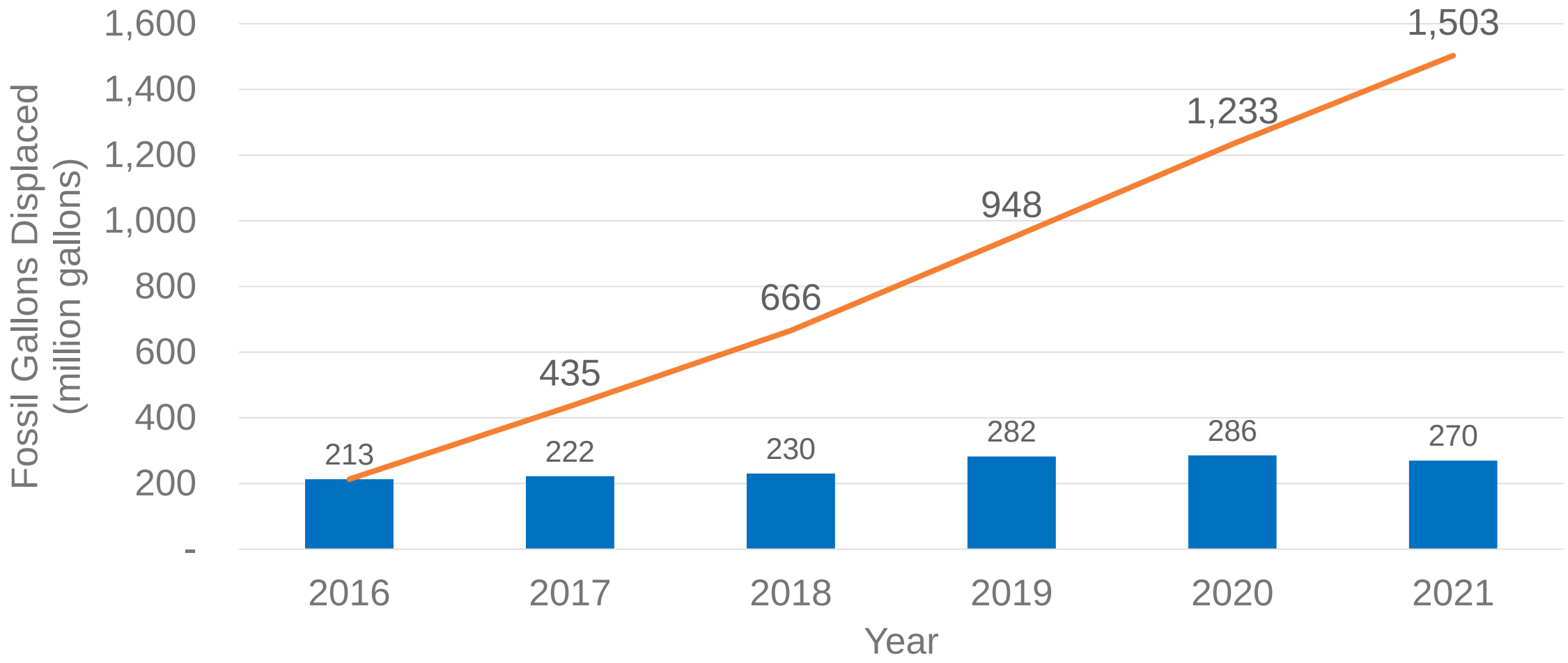
Oregon Clean Fuels Standards



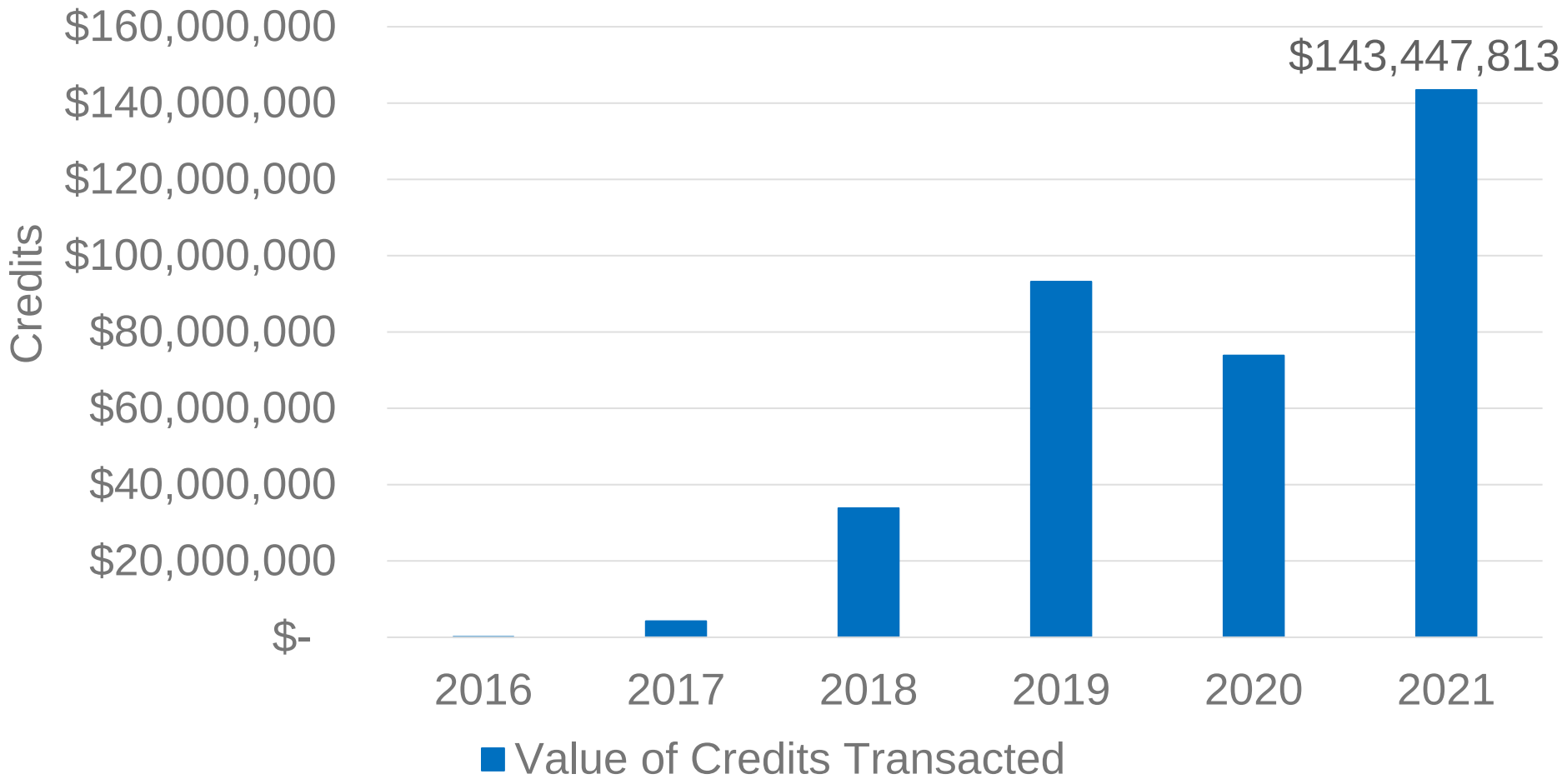
Reducing Greenhouse Gases



Displacing Fossil Fuels



Increasing Investments in the CFP Market



Reducing Greenhouse Gases

Lowering the Cost of Low-Carbon Fuels

This is what you would typically get	This is a lower carbon option	CFP credits brings the cost down by this much
B5 (5% soybean)	B20 (20% used cooking oil)	24 cents/gal
	R99 (99% soybean)	95 cents/gal
Propane (fossil)	Renewable propane (tallow)	43 cents/gal
Compressed Natural Gas (fossil)	Renewable Natural Gas (landfill gas)	39 cents/therm
	Renewable Natural Gas (dairy manure biogas)	$4.35/therm

Electric Utility Investments

- Over $40 million in investments to electrify transportation
- Public charging stations throughout Oregon
- Oregon's first electric school buses
- Dozens of grants to community-based organizations
- Workforce training programs at Clackamas and Klamath Falls Community Colleges
- Oregoin' Electric statewide media campaign

Clean Fuels Produced in Oregon

Columbia Pacific BioRefinery
Proposed: 95 mil gallons of renewable diesel/naphtha

Producing: 40 mil gallons of ethanol from corn

In Permitting: 750 mil gallons of renewable diesel from waste & virgin oils

Producing: Renewable natural gas from dairy manure

Producing: 15 mil gallons of biodiesel from used cooking oil

Proposed: renewable hydrogen

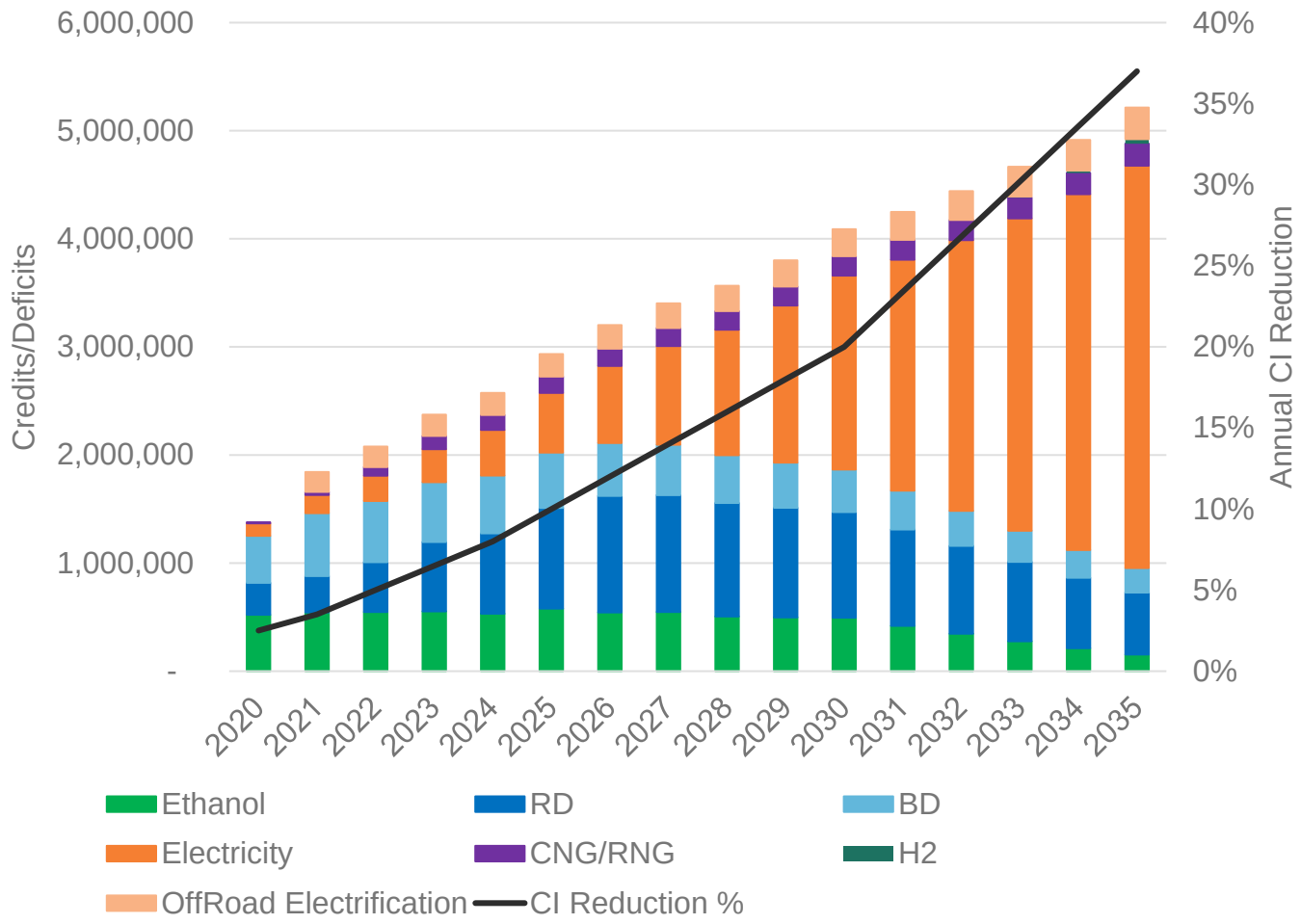
Under Construction: 15 mil gallons of renewable jet fuel from biomass

Infrastructure:

- 2,900+ EV chargers
- ~2 dozen CNG dispensers
- ~4 dozen LPG dispensers

Studies to Inform the Expansion of the Clean Fuels Program

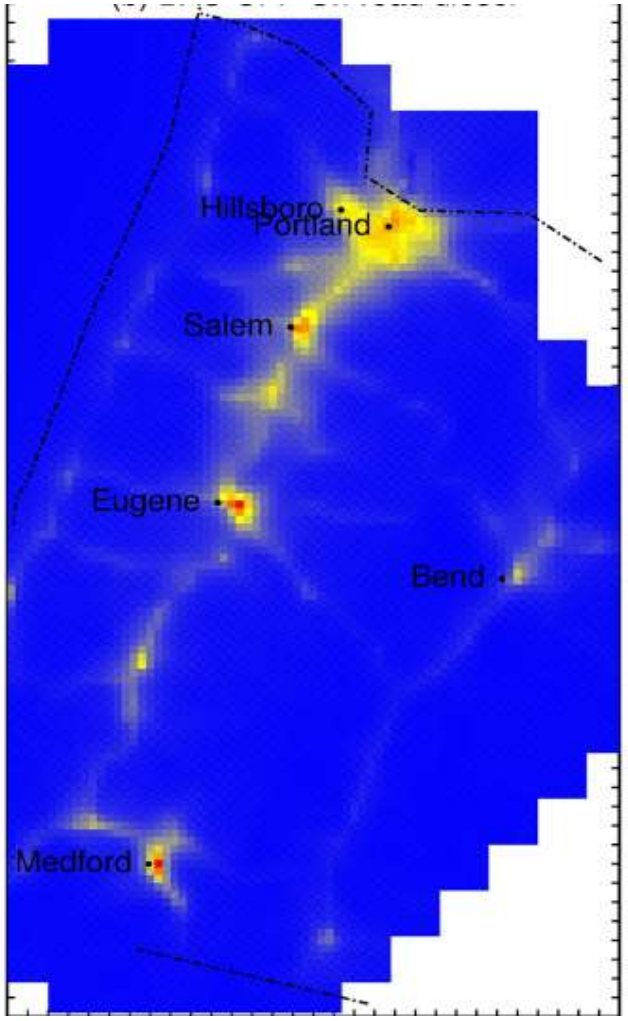
Long-Term Illustrative Compliance Scenarios



Key findings:

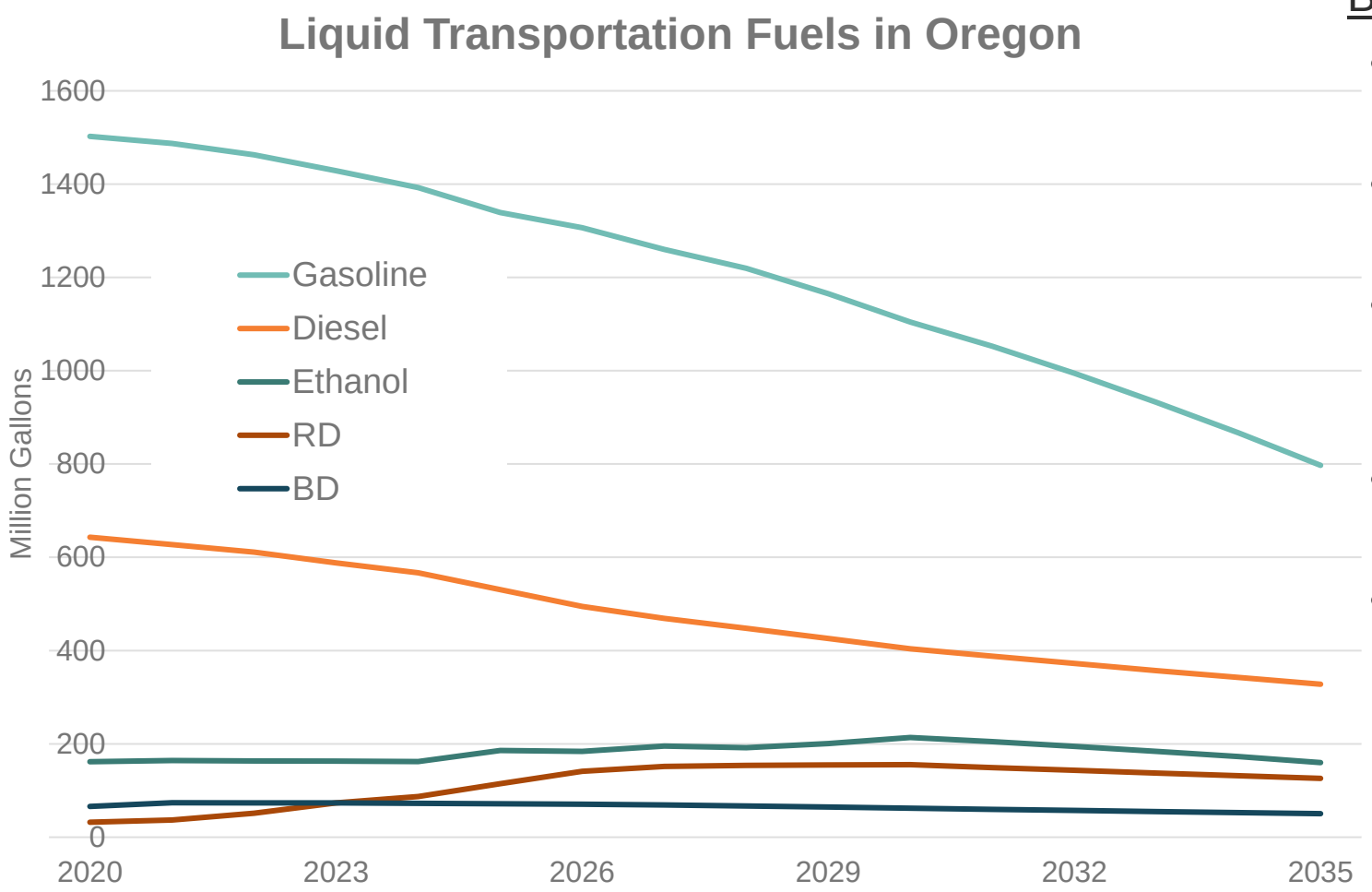
- SB 1044/Advanced Clean Cars 2 will mandate all electric light-duty cars
- Advanced Clean Trucks will require electric medium- and heavy-duty trucks
- Electrification alone achieves >25% CI reductions so **a higher target is needed to support <u>all clean fuels</u>**
- Higher blends of renewable diesel are probable

Health Benefits from an Expanded CFP



- DEQ commissioned modeling of tailpipe pollution implications for an expanded Clean Fuels Program
- Results were intuitive:
  - Largest pollution reductions along transportation corridors and urban areas
  - 15% decrease in diesel pollution in major cities
- Nearly $90 million per year in avoided health costs for Oregonians
- Health benefits are greatest in low-income and BIPOC communities that are more frequently located near highways

What Does this Mean for Transportation Fuels in Oregon?

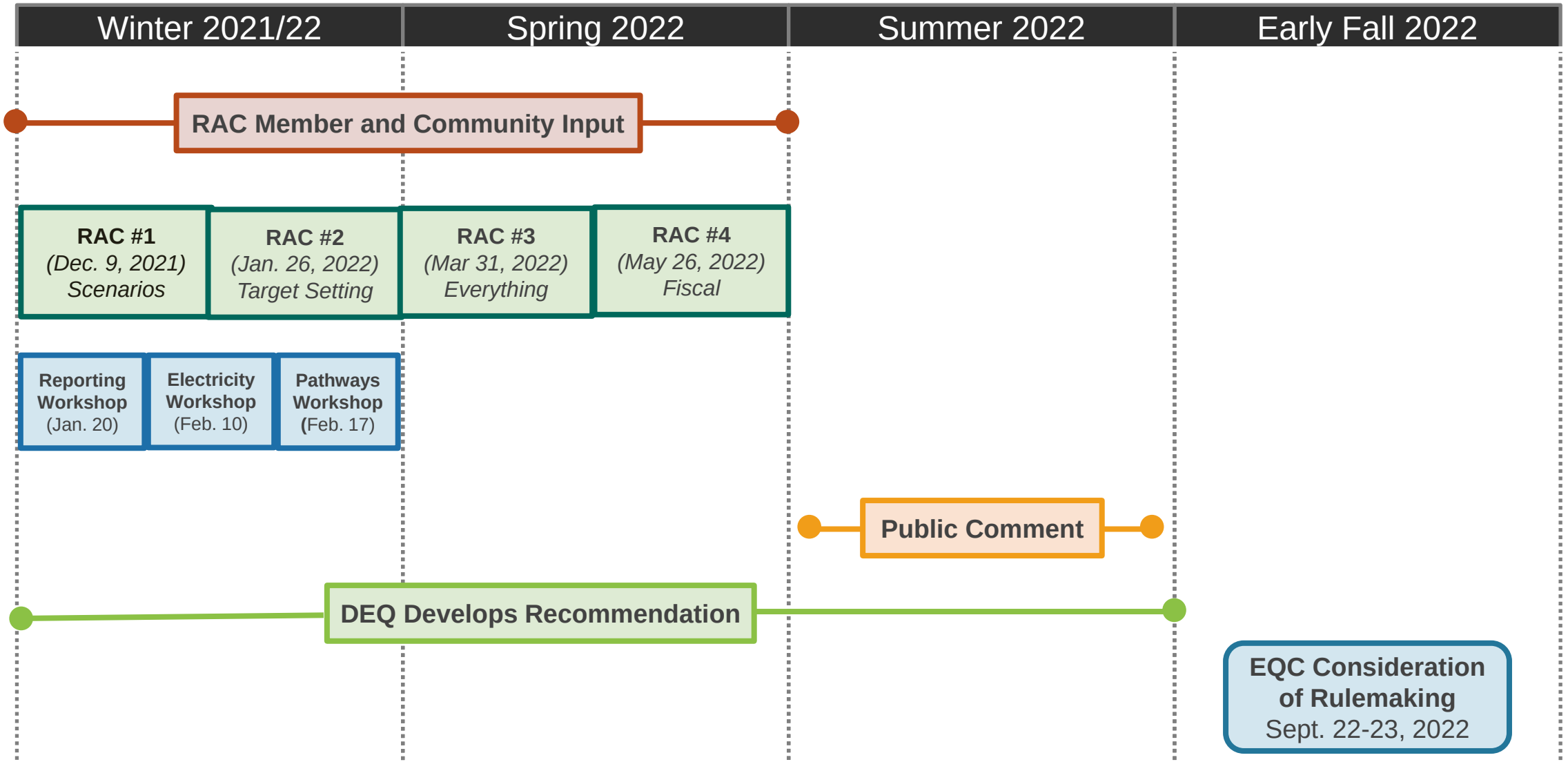


By 2035:

- Gasoline and diesel decrease by nearly 50 percent
- Biofuels increase through 2030 with increased blending
- Higher blending can't keep pace with liquid fuel displacement by electricity
- Post-2030 even biofuels begin slight decline
- Renewable diesel may play an important medium- or long-term role for certain equipment/vehicles and rural communities

Clean Fuels Program Expansion 2022 Rulemaking

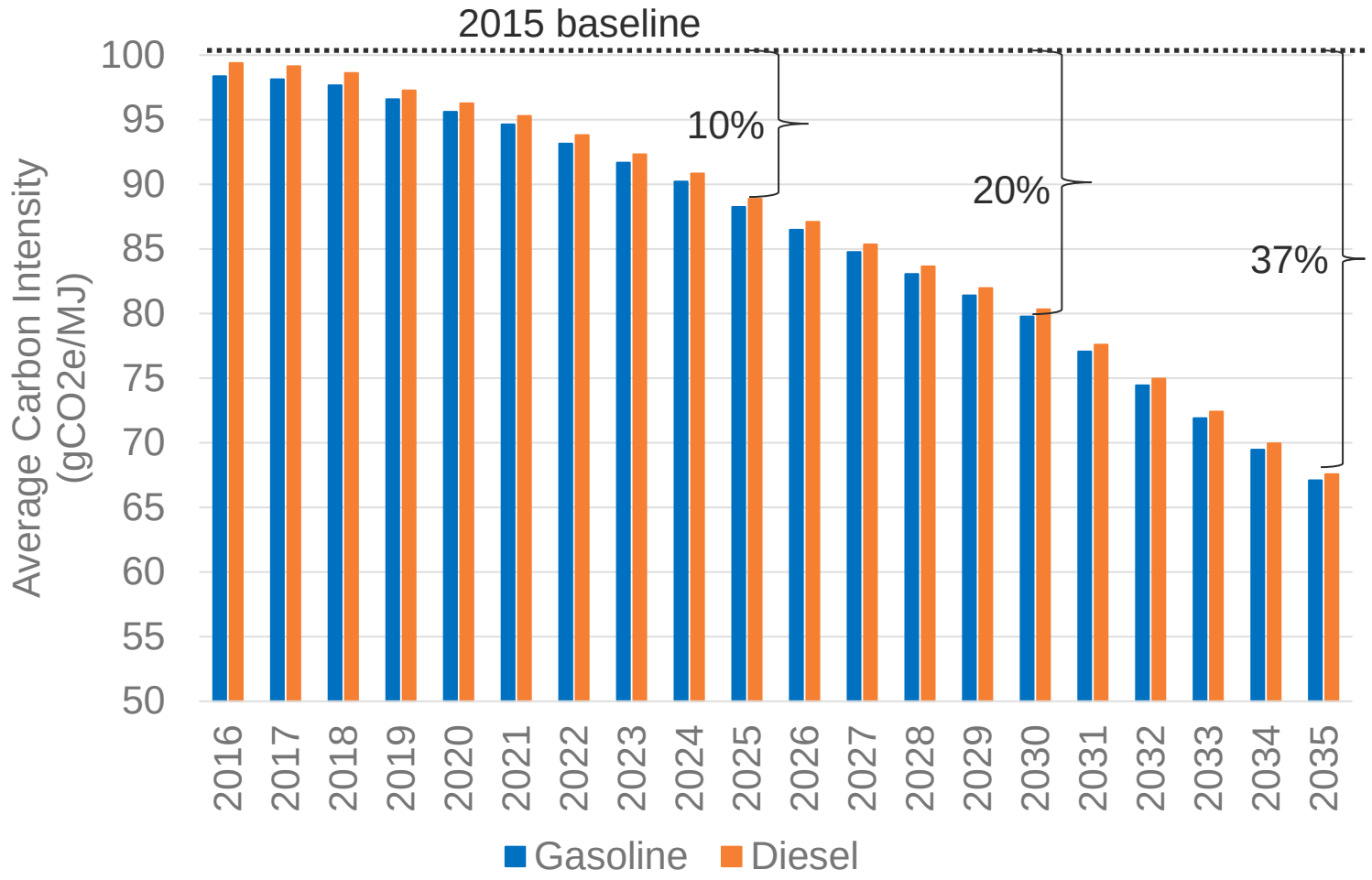
Clean Fuels Program Expansion 2022 Rulemaking Timeline



Key Issues for the RAC

- How should we think about the Clean Fuels Program targets in relation to the state's GHG reduction goals?
- Complementary programs/policies need to be considered, such as the Climate Protection Program, the renewable fuel standard, ZEV regulations, clean energy requirements, etc.
- Co-benefits should be weighed alongside the primary greenhouse gas reduction goals
- There are mechanisms in the program designed to safeguard the supply and cost impacts of transitioning to lower-carbon fuels.
  - Annual fuel supply forecast and deferral
  - Credit clearance market.

Proposed Clean Fuel Standards



Key features of proposed expansion:

- 20% in 2030
- 37% in 2035
- Straight lines between
  - 2026-2030: 2% annual reductions
  - 2031-2035: 3.4% annual reductions

Program Review in 2029

- Proposed rules would require DEQ to conduct a program review for the EQC in 2029.
- This will provide the EQC with progress made in the CFP through the 2028 calendar year, and
- Assessment of whether the 2035 target remains appropriate or whether modifications are needed.

Questions?

Clean Fuels Program web page:

www.oregon.gov/deq/ghgp/cfp/Pages/default.aspx

Clean Fuels Program Expansion 2022 rulemaking web page:

www.oregon.gov/deq/rulemaking/Pages/cfp2022.aspx

Contact information:

Cory-Ann Wind, Oregon Clean Fuels Program Manager

cory.ann.wind@deq.oregon.gov

OregonCleanFuels@deq.oregon.gov