



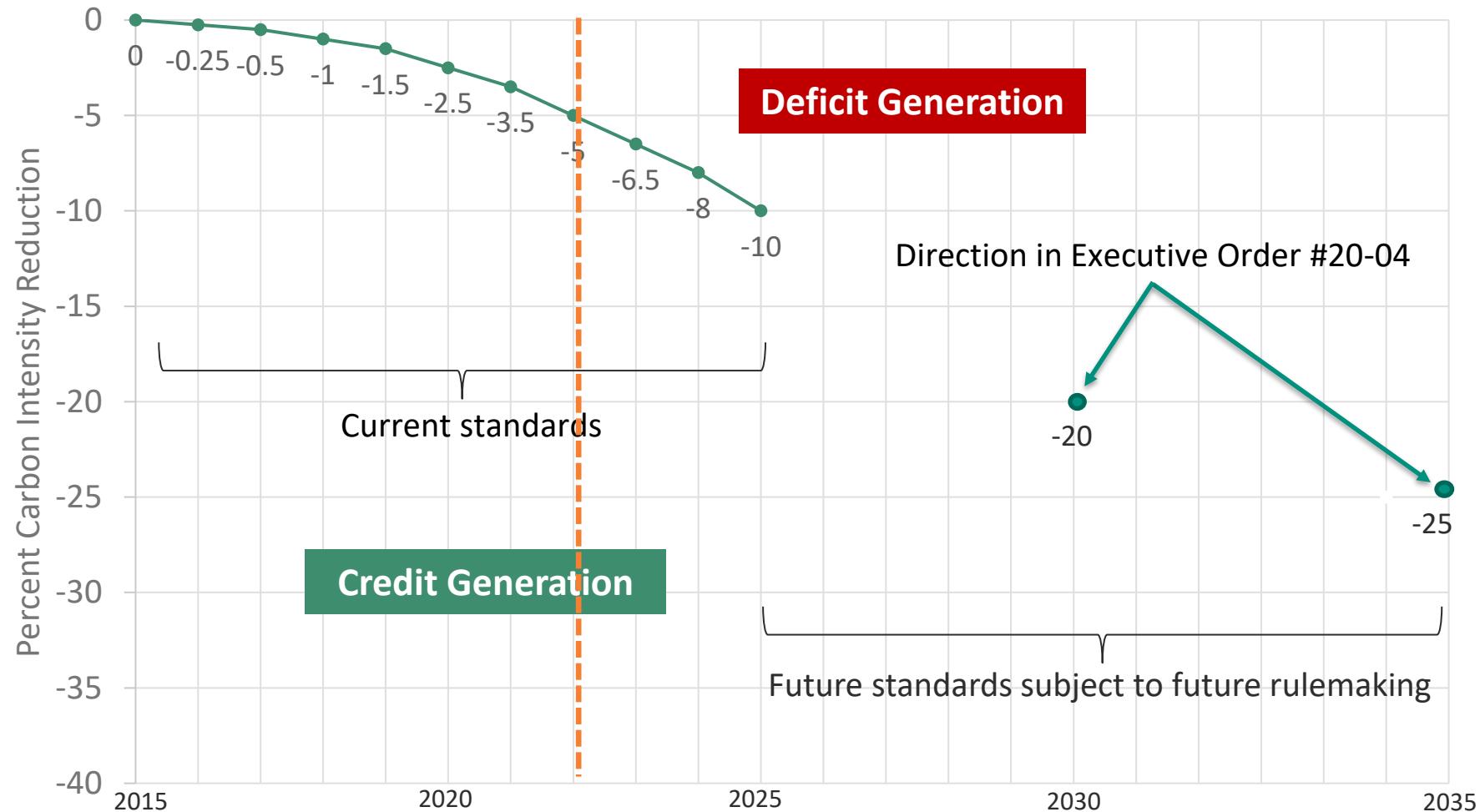
Oregon Clean Fuels Program Overview

Vermont Senate Committee on Natural Resources and Energy

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Cory-Ann Wind, Oregon Clean Fuels Program Manager

Clean Fuels Program in a Nutshell



Mandatory Fuels

- Gasoline
- Diesel
- Ethanol
- Biodiesel
- Renewable diesel

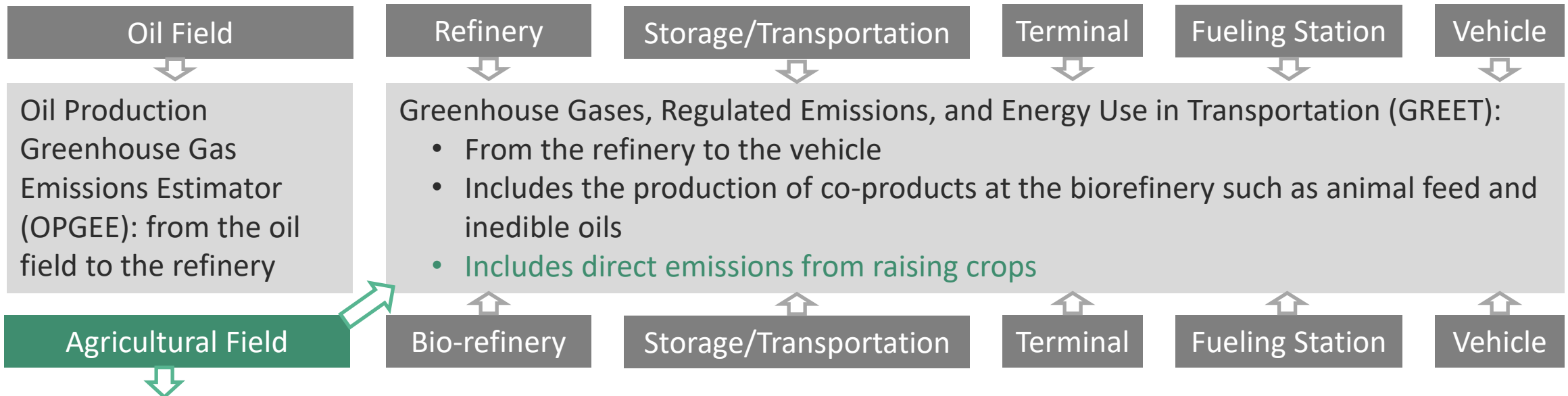
Voluntary Fuels

- Fossil and bio-CNG
- Fossil and bio-LNG
- Fossil and bio-LPG
- Sustainable aviation fuel
- Electricity
- Hydrogen

Since 2016, the Clean Fuels Program has...

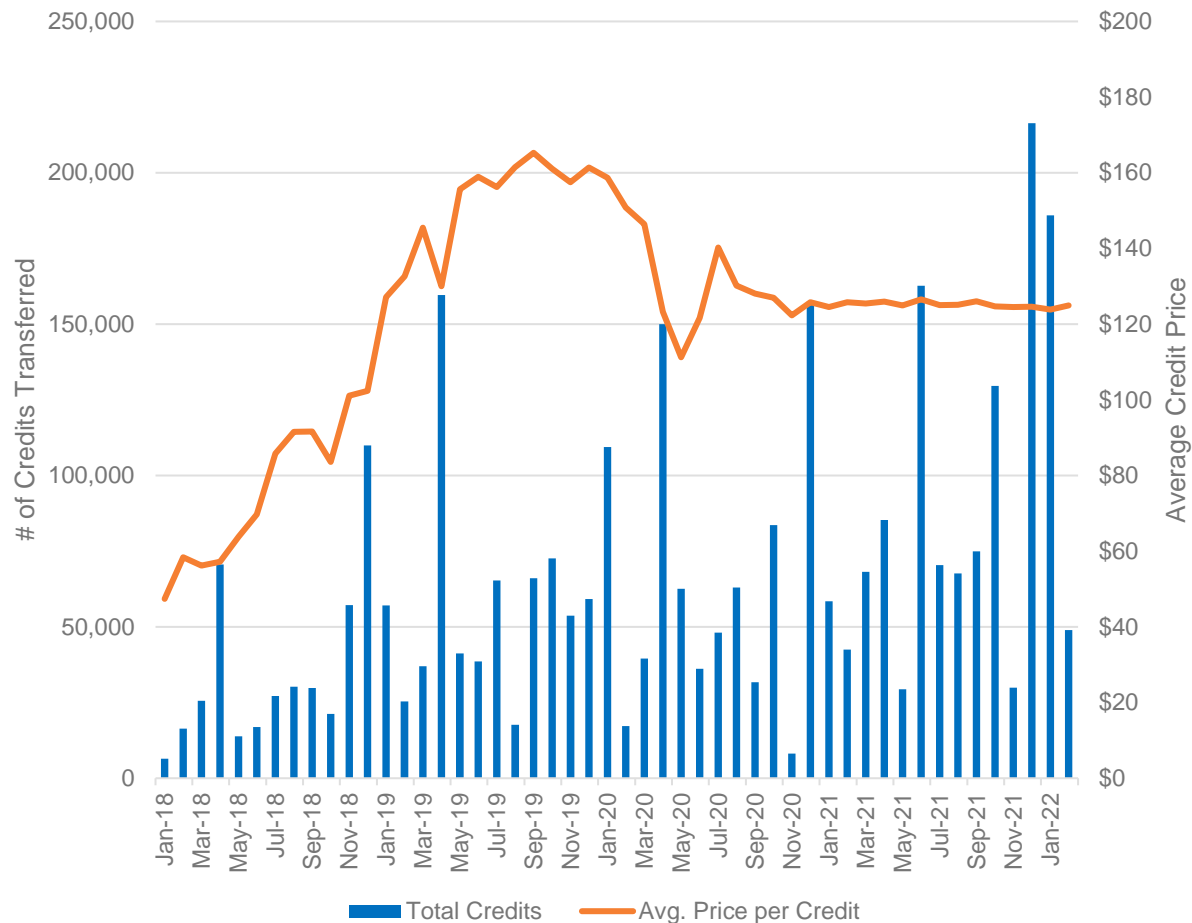
- Reduced over 6.4 million tons of GHGs on a lifecycle basis
- Supported the displacement of over 1 billion gallons of fossil fuels
- Lowered the carbon intensity of ethanol and biodiesel by about 20%
- Increased the blend rate of biodiesel & renewable diesel to about 13%
- Enabled the state's utilities to invest almost \$20 million in EV projects

Focus on Biofuel Pathways – the Models



Indirect Land Use Change	California	Oregon
Model	Global Trade Analysis Project (GTAP)	Carbon Calculator for Land Use Change from Biofuels (CCLUB)
Developed by	Purdue University	Argonne National Laboratory
ILUC factor for corn	19.8 gCO ₂ e/MJ	7.6 gCO ₂ e/MJ

Clean Fuels Program Credit Market



DEQ is required to publish the Annual Cost to comply with the Clean Fuels Program which is based off the reductions required for that year and the average credit price

- Credit prices published monthly to provide transparency to the market
- This is a conservative calculation based on the assumption that a regulated party will buy all of their obligations through the credit market and does not account for lower fuel costs associated with many of the alternative fuels.
- For 2021, this was 5.09 cents per gallon of E10 and 5.80 cents per gallon of B5

Impacting the Price of Fuels

Fuel	Avg CI (gCO ₂ e/MJ)	Impact of CFP Credits @ \$125 in 2021
Corn ethanol	55	\$0.39 per gallon
Used cooking oil biodiesel	20	\$1.16 per gallon
Soy biodiesel	45	\$0.61 per gallon
Electricity in a heavy-duty vehicle	28	\$0.15 per kWh
Landfill renewable natural gas	50	\$0.45 per therm
Dairy digester renewable natural gas	-250	\$4.41 per therm
E10 (90% gasoline 10% ethanol)	98.06	5.09 cents per gallon
B5 (95% diesel 5% biodiesel)	98.74	5.80 cents per gallon

Questions?

Clean Fuels Program web page:

<https://www.oregon.gov/deq/ghgp/cfp/Pages/default.aspx>

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