



PORTLAND'S RENEWABLE FUEL STANDARD (RFS) CODE UPDATE

Portland City Code Title 16.60



THE BUREAU OF
**PLANNING &
SUSTAINABILITY**

Why update now?

1 – Renewable diesel

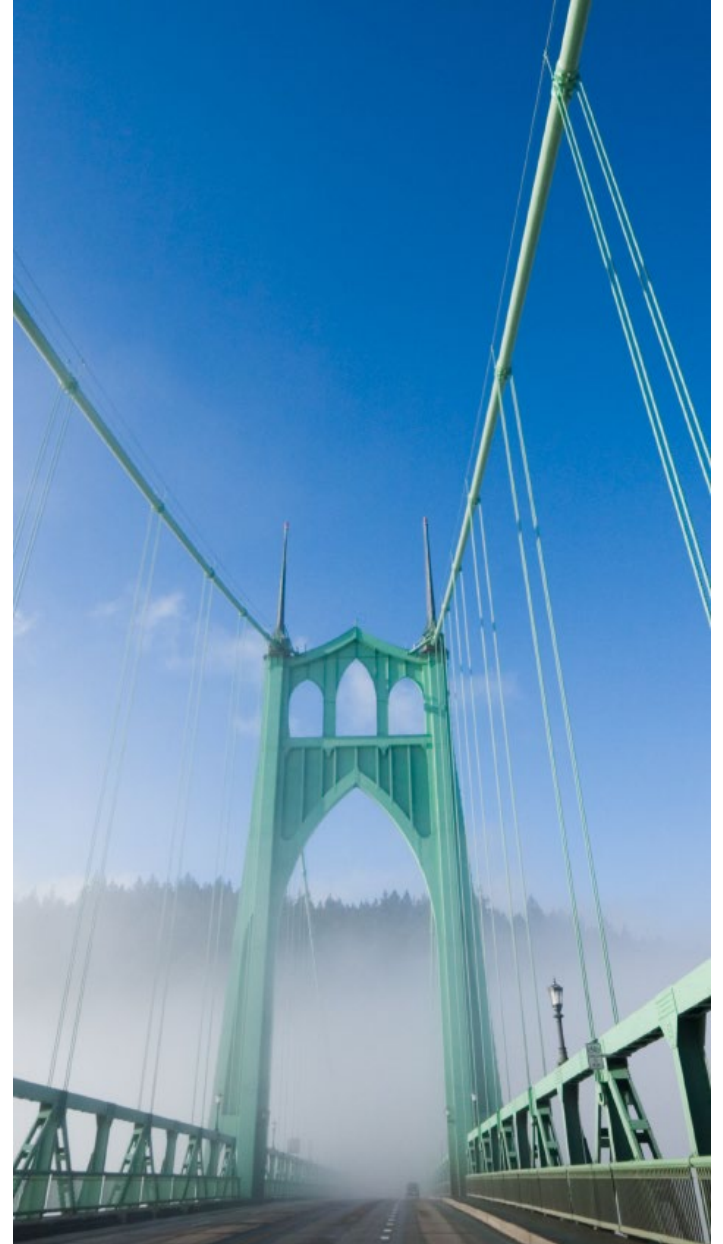
Fuel didn't exist in 2006

2 - Climate

We are living in a climate emergency

3 – Community health

Air pollution and particulate matter





Proposed code changes

- Phased-in higher blends of renewable fuels through 2030.
- Added renewable diesel as an allowable fuel.
- Added a carbon intensity standard.
- Capped biodiesel at 20%.
- Added temporary exemptions for vehicle test operations.
- Increased penalties from 2006 levels.
- Clarified rulemaking authority



What are biofuels?

Biofuels are any fuel that is derived from plant or animal matter rather than petroleum-fuel based sources. “Biofuels” and “renewable fuels” used interchangeably.

- **Renewable diesel (RD)** - blends with diesel
- **Biodiesel (BD)** - blends with diesel
- **Ethanol (E)** - blends with gasoline



Minimum Biofuel Content Requirements

Fuel Type (by percent)	Current RFS	2020 (Reported)	2024	2026	2030
Renewable Fuel	5%	11%	15%	50%	99%
Diesel	95%	89%	85%	50%	1%

Recommended Carbon Intensity Standard

- Standardized metric to compare carbon impacts of all fuels together per unit of energy.
- Expressed in gCO₂e/MJ.
- Accounts for all lifecycle carbon emissions.
- CI is modeled and values are approved by Oregon Clean Fuels program.

Renewable diesel supply

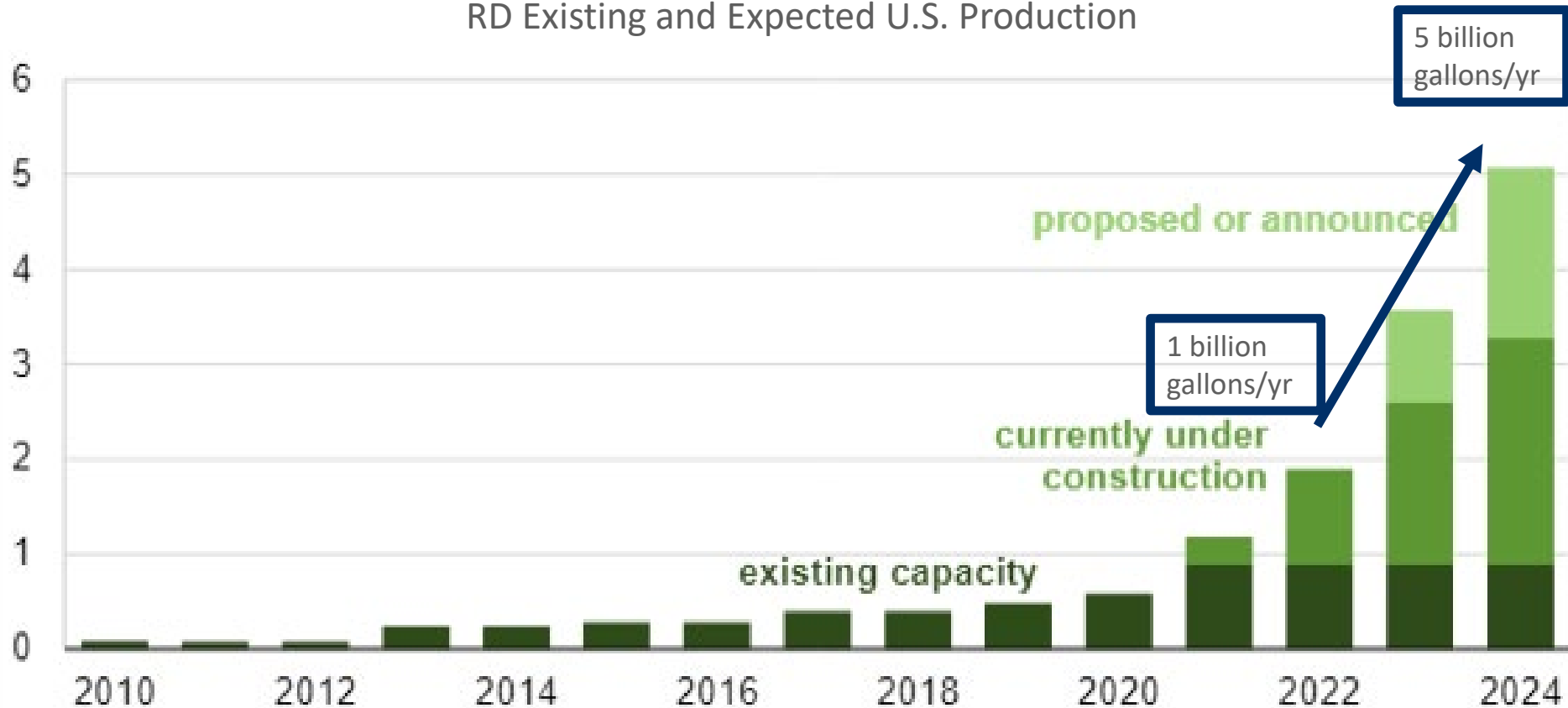
Renewable Diesel Supply Available to Oregon (Existing Suppliers in 2021)		
Locality	Nameplate Capacity (Mil. Gallons)	Number of Facilities
Singapore	291	1
North Dakota	184	1
California	180	1
Louisiana	75	1
Washington	42	1
Total Oregon Suppliers	772	5
Data from the Clean Fuels Program		

Portland uses about 120 million gals per year, or 2.4% of forecasted national production by 2024.



Renewable diesel supply nationally

RD Existing and Expected U.S. Production



Graph by the U.S. Energy Information Administration (EIA), based on data from company announcements in trade press

Cost Summary

- In California, Union 76 stations sell renewable diesel for the same price per gallon as petroleum diesel.
- Low carbon RD and BD are both affordable fuels in Oregon due to the state Clean Fuels Program.

Air Quality Impact Assessment

Annual Percent Change in Tons of Pollutant by Fuel Blend
(includes on-road and nonroad engines)

% Change (vs. B5)				
Scenario	CO	NOx	PM2.5	VOC
R99	-10%	-3%	-28%	-19%
R79/B20	-9%	+4%	-39%	-22%

Source: Eastern Research Group. (2022). Impact Assessment of Renewable and Biodiesel Blends on Emissions of Respirable Pollutants from Diesels in Portland.

Implementation

Rulemaking:

- To be completed during 2023.
- Overseen by short-term rulemaking advisory committee (RAC).
- Addresses definitions, labeling, reporting, and compliance mechanisms.

Technical advisory committee (TAC):

- Est. by mid-2023. Longer-term body through 2030.
- Narrow focus on supply, cost, and carbon intensity.
- Advises BPS Director on use of interim rule authority.

TAC Timelines

- TAC action
- Effective dates
- Report to Council

DATE	ACTIVITY
July 31, 2023	Deadline to convene TAC
May 15, 2024	15% RFS Blending and Carbon intensity standard go into effect
Oct. 15, 2025	TAC deadline to report to BPS Director
Feb. 15, 2026	BPS report to Council on TAC work and use of interim rule authority
May 15, 2026	50% RFS blending goes into effect
Oct. 15, 2029	TAC deadline to report to BPS Director
Feb 15, 2030	BPS report to Council on TAC work and use of interim rule authority
May 15, 2030	99% RFS blending goes into effect

Policy Process

- 2020-2021
 - Research
 - Monitoring of state legislative efforts
 - Producer/supplier workshop
- Jan–Aug 2022
 - Stakeholder education and engagement
- September 2022
 - Public comment period
- Fall 2022
 - Code revisions
 - City Council legislative process





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For questions contact Andria Jacob

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Second Reading



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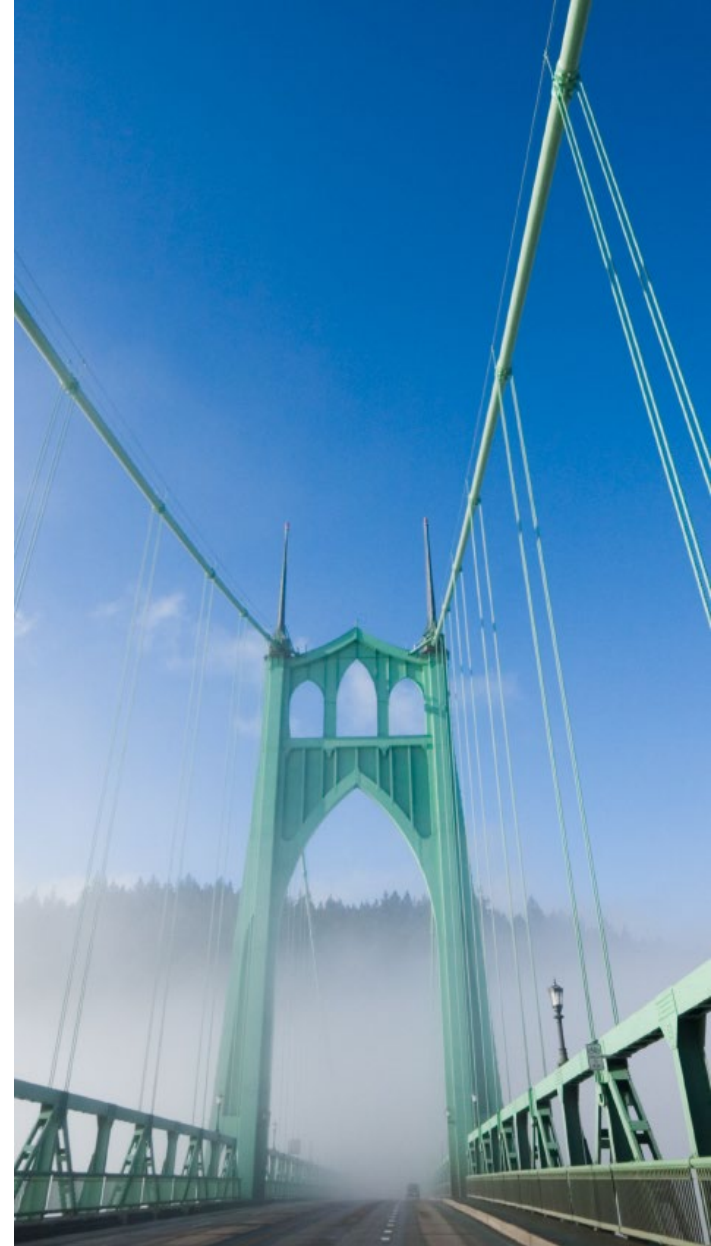


Minimum biofuel content requirements

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Flexible and informed implementation

- 07/31/23: TAC established
- 10/15/25: TAC reports to BPS Director (7 months prior to 50% blending requirement)
- 02/15/26: BPS reports to Council
- 10/15/29: TAC reports to BPS Director (7 months prior to 99% blending requirement)
- 02/15/30: BPS reports to Council



Examples of different RD feedstocks

CI (gCO ₂ e/MJ)	Approved Fuel Pathway
25.5	North American used cooking oil; processed in Louisiana; trucked to Oregon
37.0	North American animal fats; processed in Louisiana; trucked to Oregon
42.8	Globally sourced animal fats; transported and processed in Singapore; transported to California by Ocean tanker and trucked to Oregon.
58.4	US Soybean oil; processed in Wyoming; transported to Oregon



Examples of different BD feedstocks

CI (gCO ₂ e/MJ)	Approved Fuel Pathway
11.0	Used cooking oil; collected and processed in Washington; trucked to Oregon
34.2	U.S. Rendered animal fat; processed in Missouri; transported to Oregon by rail
54.0	U.S. Canola Oil; processed in Iowa; transported by truck and rail to Oregon
59.3	Midwest soybean oil; processed in Illinois; transported to Oregon by Rail



Top renewable diesel producers (with products below CI 40)

The vendors with approved RD products below 40 include:

- Neste (6)
- REG (12)
- BP (2)

74% of DEQ-approved RD products have a 40 CI or less.

Top Biodiesel Producers (with products below CI 40)

- REG (22)
- Sequential (5)
- High Plains Bioenergy (3)
- Delek Renewables, LLC (3)
- Future Fuel Company (2)
- Dansuk Industrial Company (1)
- Consolidated Biofuels LTD (1)
- Thumb Bioenergy (1)

