2024 Clean Fuels Forecast Review

Introduction

In Fall 2023, the Office of Economic Analysis released its Clean Fuels Forecast for the 2024 compliance period. The forecast projected the volumes of fossil and alternative fuels reported to the Clean Fuels program at the Department of Environmental Quality, as well as the associated deficits and credits. This briefing paper assesses the performance of that forecast.

Reported Volumes

Table 1 presents both the projected and actual volumes[1] of fuels reported to the Clean Fuels program.

Table 1

2024 Clean Fuels Forecast Review

(Mil. gallons, percent)	Actual Reported	Forecast	Difference
Conventional Gasoline	1,351.8	1,345.2	6.6
Ethanol	150.0	152.0	-2.0
Ethanol Blend Rate	*9.99%*	*10.15%*	
Blendstock	1,501.8	1,497.2	4.6
Fossil Diesel	581.9	677.4	-95.6
Biodiesel	78.5	82.8	-4.3
Biodiesel Blend Rate	*9.5%*	*9.8%*	
Renewable Diesel	169.0	84.5	84.6
Renew diesel Blend Rate	*20.4%*	*10.0%*	
Total Diesel	829.4	844.7	-15.2
Electricity (on-road)	11.3	11.2	0.0
Electricity (off-road)	4.1	10.3	-6.1
Fossil Natural Gas	0.0	0.1	-0.1
Biogas	3.9	4.9	-0.9
Biogas Blend Rate	*99.6%*	*97.5%*	
Total Natural Gas	3.9	5.0	-1.0
Liquified Petroleum Gas	2.6	5.7	-3.1

[1] Actuals are as of July 1, 2025. Subsequent data releases can change historical actuals, however, this report will not be updated.

The amount of conventional gasoline blendstock reported to the program was slightly more than expected, but ethanol was slightly less.

Total diesel, including the blending of biofuel alternatives, fell slightly short of the forecast. This was driven by fossil diesel and biodiesel, as renewable diesel was reported at nearly double the forecasted figure.

The forecast for the volume of reported on-road electricity was very close to the forecast amount, while expected off-road electricity failed to materialize in full.

While the forecast for blending of biogas exceeded expectations slightly, reporting for natural gas overall fell slightly short of projections. Finally, the forecast for liquid petroleum gas (propane) was less than half the reported amount.

Credits and Deficits

Table 2 presents a comparison of the forecast for credits and deficits to the actual values.

Table 2

2024 Credits and Deficits Forecast Review

	Actual	Forecast	Difference
Gasoline	-1,676,341	-1,636,062	-40,279
Diesel	-805,303	-901,879	96,576
Fossil Deficit Total	**-2,481,644**	**-2,537,941**	**56,297**
Ethanol	523,184	498,056	25,128
Biodiesel	462,099	525,580	-63,481
Renewable Diesel	1,227,892	540,870	687,023
Electricity, on-road	304,628	421,551	-116,923
Electricity, off-road	70,947	237,471	-166,524
Natural Gas	38,790	51,810	-13,020
Propane	1,121	21,503	-20,382
Alternative Credit Total	**2,628,661**	**2,296,840**	**331,821**
Net Credits	**147,017**	**-241,101**	**388,118**

The majority of the deviation in net credits resulted from significant departures from the assumptions regarding the volume of renewable diesel, as well as the modest forecast error for

fossil diesel. Off-road electricity, on-road electricity, biodiesel, and gasoline all fell significantly short of projections. Propane and natural gas fell short of their projections, but by a smaller margin.

Carbon Intensities

Table 3 presents the forecast assumptions, as well as the actual weight-average values, for the carbon intensities for the three major biofuels. Ethanol and renewable diesel fell short of their assumed values, while biodiesel came in higher than expected.

Table 3

2024 Carbon Intensity Review

	Actual	Forecast	Difference
Ethanol	48.8	50.0	-1.2
Biodiesel	44.8	40.5	4.3
Renewable Diesel	35.5	41.5	-6.0