

California Low-Carbon Fuel Standard

Biodiesel Sustainability Symposium
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California Low-Carbon Fuel Standard

**Executive Order S-1-07, the Low Carbon Fuel Standard (LCFS)
(issued on January 18, 2007).**

- **calls for a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020.**
- **instructed the CA EPA to coordinate activities to develop and propose a draft compliance schedule to meet the 2020 target.**
- **ARB identified the LCFS as an early action item with a regulation to be adopted and implemented by 2010.**

The LCFS System

- Draft regulation requires producers and importers of transportation fuels to meet an overall carbon intensity for the fuel mix they supply to California.
- Regulated entities may meet the LCFS by using a combination of fuel blends, alternative fuels, and LCFS credits.

www.arb.ca.gov/fuels/lcfs/lcfs.htm

CA LCFS Compliance Schedule

DRAFT: LCFS compliance schedule for 2010 to 2020 for diesel fuel or fuels used to substitute for diesel fuel.

Year	Carbon Intensity (gCO ₂ e/MJ)	% Reduction
2010	95.8	0
2011	95.6	-0.3
2012	95.3	-0.5
2013	95.1	-0.8
2014	94.6	-1.3
2015	93.6	-2.3
2016	92.0	-4.0
2017	90.5	-5.5
2018	88.6	-7.5
2019	86.7	-9.5
2020	86.2	-10.0

Carbon Intensities of Fuels

Diesel Fuel, Blendstock, or Replacement	Definition	CI	Land Use Change Term	Current CI Estimate
Diesel	ULSD in 2010	95.8	0	95.8
Conventional Renewable Biodiesel	Derived from crop	35.3	35	70
CNG	in 2010	67.9	0	67.9
Electricity	CA marginal mix, 2010	106.7	0	106.7
Advanced Renewable Biodiesel	Derived from waste	20.0	0	20

CI calculated using CA-GREET 1.8b with ARB Interface Tool v1.2_19.
Land Use Change Term is an estimate.

CARB Year-by-Year Analysis of Compliance Scenarios for Diesel Fuels and Fuels that Substitute for Diesel Fuel Scenario 5 (one of several scenarios examined)

Year	% Reduction	Conventional Biodiesel (MGPY)	Adv. Renew. Diesel (MGPY)	Total Diesel (MGPY)	% Bio and Renew.
2011	0.3	5	11	3847	0.4
2012	0.5	10	21	3937	0.8
2013	0.8	16	33	4029	1.2
2014	1.3	28	56	4121	2.0
2015	2.3	52	102	4213	3.7
2016	4.0	89	173	4294	6.1
2017	5.5	133	261	4401	9.0
2018	7.0	184	363	4496	12.2
2019	9.5	240	471	4592	15.4
2020	10.0	260	510	4689	16.4

SUSTAINABILITY CONCEPTS FOR AB 118

The Alternative and Renewable Fuel and Technology Program

AB118

- **Purpose**

To transform California's transportation market into a diverse collection of alternative fuels and technologies and reduce California's dependence on petroleum.

- **Funding**

For the *Alternative & Renewable Fuel and Vehicle Technology Program*, the Energy Commission will receive **\$120 million/year for over 7 years**.

ARB will receive **\$80 million/year for over 7 years** for *Enhanced Fleet Modernization and Air Quality Improvement*.

AB 118 Sustainability Provisions

- Interpret the Sustainability Language from AB 118
- Write Regulatory Goals
- Guidance for Investment Plan Solicitations
- Draft Regulatory Goals that include Sustainability Provisions have been posted for public comment.

CEC Alternative & Renewable Fuel & Vehicle Technology Program
www.energy.ca.gov/ab118/index.html for Proposed Draft Regulations
go to “Documents, Presentations,…”

Thanks

