



Regulatory Guidance

May 2016



Low Carbon Fuel Standard Regulatory Guidance 16-06

LCFS Fixed Guideways System FAQs

What systems qualify for “fixed guideway credit in the LCFS”?

According to the LCFS regulation Section 95481(a)(35), “Fixed Guideway System” means a system of public transit electric vehicles that can operate only on its own guideway (directly operated, or DO) constructed specifically for that purpose, such as light rail, heavy rail, cable car, street car, and trolley bus.

Who can opt into the LCFS program under the fixed guideway provision?

For transportation fuel supplied to a fixed guideway system, the transit agency operating the system is eligible to generate credits for electricity used to propel the system. The Electrical Distribution Utility (EDU) is also eligible to generate such credits, if the transit agency selects not to opt-in and generate credits.

Why should I opt into the LCFS program?

By opting into the LCFS program and providing electricity as transportation fuels for your fixed guideway system, you can earn an LCFS credit for each metric ton of CO₂ equivalent (MTCO_{2e}) emissions avoided through the use of electricity. The credits will have a monetary value and may be sold to regulated parties who must offset deficits created by their supply of fuels with Carbon Intensities (CIs) that exceed the LCFS standards.

How do I opt into the LCFS program?

Opting into the LCFS program involves registering with ARB in the LCFS Reporting Tool (LRT), and establishing an account in the LRT Credit Bank & Transfer System (LRT-CBTS). This process is simple and primarily includes providing the organization name, organization address, organization federal employer identification number, primary contact name, telephone number, and email address.

For more information about opting into the program and registering an organization in the LRT system, please visit (LRT-CBTS) (www.arb.ca.gov/lcfsrt).

Are there any requirements after I opt into the LCFS program?

The fixed guideway operators that opt into LCFS are subject to the reporting requirements set forth in Section 95491(a), and the recordkeeping requirements set forth in section 95491(b) through (e) of the LCFS regulation.

After opting in, the fixed guideway operator must submit quarterly and annual reports to receive credits. The data for the quarterly reports must be initially uploaded to the LRT-CBTS within the first 45 days after the end of each quarter. The uploaded draft reports can be revised and edited. Final quarterly reports must be submitted in the LRT-CBTS by the deadlines shown below:

- June 30th – for the first calendar quarter covering January through March;
- September 30th – for the second calendar quarter covering April through June;
- December 31st – for the third calendar quarter covering July through September; and
- March 31st – for the fourth calendar quarter covering October through December.

An annual compliance report for the prior calendar year must be submitted in the LRT-CBTS by April 30th of each year.

The primary parameter reported are the amount of fuels (in kWh for electricity) dispensed per compliance period to motor vehicles for transportation use. It is important to note that even if no fuel was produced and no transactions were made, a quarterly report with zero amounts must be submitted to remain in good standing in the system.

After opting in, when can I start generating credits?

Opting into the LCFS program becomes effective when the fixed guideway operator establishes an account in the LRT-CBTS. The opt-in credit generator may report and generate credits based on transactions in the quarter in which they opted in, but not for any prior quarters. For instance, if you opt into the LCFS on June 30th, you can generate credits for the 2nd calendar quarter covering April through June, but not the 1st quarter of that calendar year.

Will fixed guideway systems start to compile credits starting 1/1/16, or will they begin with a bank of credits already in place?

Fixed guideway systems will be able to opt in and generate credits under the LCFS program beginning January 1, 2016, it is important to note that if a transit agency that operates the fixed guideway system elects not to opt into the LCFS program, the EDU is eligible to claim the credits. Opting into the LCFS program becomes effective when the transit agency registers with ARB and establishes an account in the LRT-CBTS.

What revenues can fixed guideways generate?

The LCFS credits can be calculated by the following equation:

$$Credits = \left(CI_{standard} - \frac{CI_{Electricity}}{EER} \right) \times Energy\ Density \times EER \times Electricity\ Units \times 10^{-6}$$

The Energy Economy Ratio (EER) is a dimensionless value that represents the efficiency of a fuel as used in a powertrain as compared to a reference fuel (see Table 1); the 2016 CI Standard is 99.97 gCO₂e/MJ for diesel substitute; the CI of electricity is 105.16 gCO₂e/MJ; the Energy Density of electricity is 3.6 MJ/kWh.

The estimated LCFS credit revenues for different fixed guideway systems are shown in Table 1 below. Please note that a fixed guideway system installed during or before 2010 receives less credit than a system installed or expanded after this year.

Therefore, the credit revenues for existing and new fixed guideway systems are demonstrated separately.

Table 1: Estimated 2016 credit revenue generated

Fixed Guideway System Type	EERs	Credit Revenues (per KWh)		
		LCFS Credit Price		
		\$50*	\$100*	\$150*
Existing Heavy Rail	4.6	¢1.39	¢2.78	¢4.16
Existing Light Rail	3.3	¢1.23	¢2.45	¢3.68
Existing Trolley Bus, Cable Car, Street Car	3.1	¢1.19	¢2.38	¢3.57
New Heavy Rail	4.6	¢6.38	¢12.77	¢19.15
New Light Rail	3.3	¢4.05	¢8.09	¢12.14
New Trolley Bus, Cable Car, Street Car	3.1	¢3.69	¢7.37	¢11.06

* Credit prices used here are for illustration purposes only.

Is there an expiration date for LCFS credits?

No, there is no expiration date for the LCFS credits. You can hold/bank the credits for any period of time.

Contact:

If you have questions regarding the above information, please contact Manisha Singh at (916) 327-1501 or Manisha.singh@arb.ca.gov for general questions related to LCFS, and Jing Yuan at (916) 322-8875 or jyuan@arb.ca.gov for questions related to LCFS Electricity Program.