

State of California
AIR RESOURCES BOARD

Notice of Public Availability of Modified Text

PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE
LOW CARBON FUEL STANDARD REGULATION

Public Hearing Date: December 16, 2011
Public Availability Date: April 10, 2012
Deadline for Public Comment: April 25, 2012

At its December 16, 2011, public hearing, the Air Resources Board (Board or ARB) approved the amendments to the California Code of Regulations (CCR), title 17, sections 95480.1, 95481, 95482, 95484, 95485, 95486, 95488, 95490, and adoption of new sections 95480.2, 95480.3, 95480.4, and 95480.5. The approved sections, along with other sections in 17 CCR section 95480 et seq. that were not proposed for modification in this regulatory action, comprise a regulation for implementing the Low Carbon Fuel Standard (collectively referred to hereinafter as "LCFS" or "LCFS regulation").

The LCFS regulation will reduce greenhouse gas emissions by reducing the carbon intensity of transportation fuels used in California by at least ten percent by 2020. Carbon intensity (CI) is a measure of the greenhouse gas emissions associated with the various production, distribution, and utilization phases in the "lifecycle" of a given transportation fuel. The regulation applies to any transportation fuel, as defined in the regulation, which is sold, supplied, or offered for sale in California, and to any regulated party, as defined in the regulation, which is responsible for a transportation fuel in a calendar year.

The Board's Action

At the December 16, 2011 hearing, staff presented the amendments originally proposed in the Staff Report released on October 26, 2011 and suggested modifications to the original proposal in response to comments received during the 45-day comment period.

The Board adopted Resolution 11-39 (Resolution) (appended to this notice as Attachment 1), approving the proposed amendments, with staff's suggested modifications and other conforming modifications as may be appropriate. Appended to the Resolution were the initially noticed regulatory text (as Attachment A) and the staff's suggested modifications to that text (as Attachment B), both of which were made available at the hearing. In approving the amendments, the Board directed the Executive Officer to incorporate the approved modifications to the initially noticed text, along with such other conforming modifications as may be appropriate, and to make such modifications available for a comment period of at least fifteen days.

The staff's proposed substantive modifications are discussed below and set forth in detail in the document appended to this notice as Attachment 2. The existing regulatory text is denoted by plain text, and the staff's initially-noticed proposed additions to the regulatory text are denoted by underline and deletions by ~~striketrough~~. Staff's proposed additions that are subject to public review under this notice are denoted by double underline, deletions by ~~double striketrough~~, and deletion of initially-noticed proposed additions by ~~single underline double striketrough~~.

Modified Text Being Made Available

Board Resolution 11-39 (Attachment 1) and the modified regulatory text (Attachment 2), are available online at the following ARB website:

<http://www.arb.ca.gov/regact/2011/lcfs2011/lcfs2011.htm>.

If you would like a hardcopy of any of these attachments sent to you through postal mail, please call Ms. Aubrey Sideco at (916) 324-3334 and give your name, company name (if any), and mailing address.

Summary of Proposed Modifications

The following is a summary of the proposed substantive modifications to the regulation and staff's rationale for making them. All references to sections 95480.1, 95480.2, 95480.3, 95480.4, 95480.5, 95481, 95482, 95484, 95485, 95486, 95488, and 95490, are to title 17, CCR, unless otherwise noted. The following list does not include modifications to correct typographical and citation errors, numbering errors, grammar errors, or the rearranging of sections and paragraphs for structural improvements, nor does it include minor revisions made to improve clarity or other nonsubstantive modifications.

Section 95481. Definitions and Acronyms

1. *Add new definitions.* Section 95481(a)(5), (24), (32), and (48).

In section 95481, a number of definitions have been added. A definition for "on-road" was added because the electricity regulated party provisions refer to "on-road" electricity but is not defined in the regulation.

Definitions for "electric vehicle (EV)," "battery electric vehicle," "hybrid electric vehicle (HEV)," and "plug-in hybrid electric vehicle" were also added to clarify the intended meaning of the term "EV" in the initially proposed regulatory text.

2. *Add acronyms.* Section 95481(a)(10) and (17).

Acronyms "EV" and "HEV" were added to the *Acronyms* list.

95484. Requirements for Regulated Parties

3. *Include Any "Person" Operating A Fleet, Rather Than Any "Company."* Section 95484(a)(6)(C).

A more accurate description of a fleet operator was provided in the electricity regulated party provisions of the LCFS. The initially-noticed proposed regulatory text for EV fleet operators restricted regulated parties to a "company" operating a fleet rather than a "person." However, under Health and Safety Code section 39047, which is incorporated into the LCFS regulation by reference, "person" includes other entities such as an individual, firm, association, organization, partnership, business trust, corporation, limited liability company, company, or other local, State, or federal government agencies. Therefore, use of the term "person" instead of "company" in this provision would add flexibility while still allowing for a "company" to qualify.

4. *Specify the Regulated Party for EV Battery Switch Stations.* Section 95484(a)(6)(C)1.

The proposed electricity provisions were modified to specify regulated parties for EV battery switch stations. The revisions would allow a switch-station owner to opt in as a potential regulated party and receive credits. The initially-proposed regulatory text did not adequately account for fleets charging at battery switch stations. While switch stations are not currently operational in California, staff expects the stations to be operating in the San Francisco Bay Area for taxi fleets within the next couple of years.

Battery switch station owners invest substantial capital to install and operate the equipment and infrastructure needed to conduct fast battery switching of EVs. Therefore, it is appropriate for the station owner, rather than the fleet operator, to receive EV charging credits to reward them for their major investment in innovative charging technology.

5. *Revise quarterly reporting requirements.* Section 95484(b)(3)(A)4.

The reporting requirements for imported petroleum intermediates, blendstocks, and finished fuel were deleted. The California Energy Commission currently tracks the annual volumes of imported additives and finished product for gasoline and diesel.

Consistent with the proposed changes to the annual reporting requirements described in paragraph 6 below, staff inserted a reporting requirement for marketable crude oil name (MCON) designation, volume (in gal), and Country (or State) of origin for each MCON supplied to the refinery during the quarter (see below for the rationale).

6. *Revise annual reporting requirement.* Section 95484(b)(4)(B).

Annual reporting requirements were modified to include:

- MCON designation, volume (in gal), and Country (or State) of origin for each MCON supplied to the refinery during the annual compliance period.
 - For each MCON, the constituent field names and the percentage of the MCON supplied from each field. For each MCON that includes a non-crude diluent, the type of diluent (e.g. natural gas condensate, naphtha, etc.) and the percentage of diluent in the MCON.
 - For each field listed in 1.a., the total annual volume produced by the field, the percentage produced using thermally enhanced oil recovery (TEOR), the percentage produced using oil sands mining, and the percentage that is upgraded to synthetic crude oil.

This information is necessary for the calculation of carbon intensity values for each MCON supplied to California refineries. Staff has determined that this information is not available in the public literature for all MCONs and believes the regulated parties are in the best position to provide the information.

Section 95485. LCFS Credits and Deficits

7. *Revise Table 4, Energy Densities of LCFS Fuels and Blendstocks.* Section 95485(a)(1).

Staff revised the energy density value for ethanol in Table 4. The energy density value for denatured ethanol was used to replace the current value shown for anhydrous ethanol because gasoline and similar fuels use denatured ethanol rather than anhydrous ethanol. This provides a more accurate value for ethanol.

Table 4. Energy Densities of LCFS Fuels and Blendstocks.

Fuel (units)	Energy Density
CARBOB (gal)	119.53 (MJ/gal)
California Reformulated Gasoline (gal)	115.63 (MJ/gal)
Diesel fuel (gal)	134.47 (MJ/gal)
Compressed Natural Gas (scf)	0.98 (MJ/scf)
Liquefied Natural Gas (gal)	78.83 (MJ/gal)
Electricity (KWh)	3.60 (MJ/KWh)
Hydrogen (kg)	120.00 (MJ/kg)
Anhydrous Denatured Ethanol (gal)	81.5180.53 (MJ/gal)
Neat Biomass-based diesel (gal)	126.13 (MJ/gal)

Section 95486. Determination of CI Values

8. *Add Public Comment Period in Method 2A/2B Certification Process To Identify Factual Errors.* Section 95486(f)(3).

To maintain the transparency and improve the Method 2A/2B certification process, staff added a public comment period prior to the Executive Officer taking final action on

certification applications. The revision specifies the scope of public comments to identifying and commenting on factual errors in a 2A/2B application, rather than general or specific LCFS-related policy concerns or issues.

9. Update Lookup Tables to Incorporate New Pathways Approved in the February 2011 Executive Officer Hearing. Section 95486(b)(1).

Tables 6 and 7 were modified to incorporate new and modified fuel pathways that were adopted as a result of the February 2011 Executive Officer hearing.

10. Revise Description of Annual Crude Average CI. Section 95486(b)(2)(A)1.

Staff deleted the requirement that “Crude oil used to produce CARBOB or diesel for which a credit is claimed in a calendar year pursuant to section 95486(b)(2)(A)3 will be included in the Annual Crude Average CI calculations for that year based on the CI of the crude oil prior to calculation of any innovative credits allowed pursuant to section 95486(b)(2)(A)3.”

Staff included language that specifies that the Annual Crude Average CI will be calculated using a three year rolling average of crude oil supplied to California refineries. The three year rolling average will be phased in over a period of three years.

Section 95488. Banking, Trading and Purchase of Credits

11. Modify Provisions To Permit Blind Trading. Section 95488(c)(3).

Staff clarified the option for blind trading under the program. Staff specified that a credit facilitator may conduct a “blind transaction,” where the buyer’s and seller’s identities are not disclosed to each other at the time of the transaction. Blind trading would encourage credit trading between regulated parties, including competing regulated parties.

Availability of the Attachments and Other Materials

By this notice, the modified regulation order and supplemental documents are being made available for public comment prior to final action by the Board’s Executive Officer. As noted above, the documents listed above as attachments to this notice are available online at <http://www.arb.ca.gov/regact/2011/lcfs2011/lcfs2011.htm>, or from the Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Center, 1st Floor, Sacramento, California 95814.

If you would like a paper copy of any of these attachments sent to you through postal mail, please call Ms. Aubrey Sideco at (916) 324-3334 and give your name, company name (if any), and mailing address.

Comments and Subsequent Action

In accordance with section 11346.8 of the Government Code, the Board directed the Executive Officer to adopt sections 95480.1, 95481, 95482, 95484, 95485, 95486, 95488, 95490, and new sections 95480.2, 95480.3, 95480.4, and 95480.5, title 17, CCR, after making them available to the public for comment for a period of at least fifteen days. The Board further provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if warranted.

Written comments will only be accepted on the modifications identified in this notice and may be submitted by postal mail, or electronic mail submittal as follows:

Postal mail: Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>.

Please note that under the California Public Records Act (Gov. Code § 6250 et seq.), your written and oral comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request.

In order to be considered by the Executive Officer, comments must be directed to ARB in one of the two forms described above and received by ARB by 5:00 p.m. on the deadline date for public comment listed at the beginning of this notice. Only comments relating to the above-described modifications to the text of the regulations shall be considered by the Executive Officer.

If you need this document in an alternate format or another language, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 no later than five (5) business days from the release date of this notice. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Si necesita este documento en un formato alternativo ó otro idioma, por favor llame a la oficina del Secretario del Consejo de Recursos Atmosféricos al (916) 322-5594 o envíe un fax al (916) 322-3928 no menos de cinco (5) días laborales a partir de la fecha del lanzamiento de este aviso. Para el Servicio Telefónico de California para Personas con Problemas Auditivos, ó de teléfonos TDD pueden marcar al 711.

Attachments (2)

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see ARB's website at www.arb.ca.gov.