JS 44 (Rev. 12/07)

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON THE REVERSE OF THE FORM.)

(a) PLAINTIFFS
ROCKY MOUNTAIN FARMERS UNION; REDWOOD COUNTY MINNESOTA CORN AND SOYBEANS GROWERS; PENNY NEWMAN GRAIN, INC.; GROWTH ENERGY and the RENEWABLE FUELS ASSOCIATION

(b) County of Residence of First Listed Plaintiff Arapahoe County, CO
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorney's (Firm Name, Address, and Telephone Number)
Timothy Jones #119841 / John P. Kinsey #215916
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8365 N. Fresno Street, Suite 310
Fresno, California 93729
559-233-4800

DEFENDANTS
JAMES N. GOLDSTENE, in his official capacity as Executive Officer of the California Air Resources Board

County of Residence of First Listed Defendant _____
(IN U.S. PLAINTIFF CASES ONLY)
NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE LAND INVOLVED.

Attorneys (If Known)

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff
- ☒ 3 Federal Question (U.S. Government Not a Party)
- ☐ 2 U.S. Government Defendant
- ☐ 4 Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)
(For Diversity Cases Only)

	PTF	DEF		PTF	DEF
Citizen of This State	☐ 1	☐ 1	Incorporated *or* Principal Place of Business In This State	☐ 4	☐ 4
Citizen of Another State	☐ 2	☐ 2	Incorporated *and* Principal Place of Business In Another State	☐ 5	☐ 5
Citizen or Subject of a Foreign Country	☐ 3	☐ 3	Foreign Nation	☐ 6	☐ 6

IV. NATURE OF SUIT (Place an "X" in One Box Only)

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- ☐ 120 Marine
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- ☐ 140 Negotiable Instrument
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REAL PROPERTY
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- ☐ 220 Foreclosure
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- ☐ 240 Torts to Land
- ☐ 245 Tort Product Liability
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- ☐ 315 Airplane Product Liability
- ☐ 320 Assault, Libel & Slander
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- ☐ 340 Marine
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- ☐ 365 Personal Injury - Product Liability
- ☐ 368 Asbestos Personal Injury Product Liability

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- ☐ 371 Truth in Lending
- ☐ 380 Other Personal Property Damage
- ☐ 385 Property Damage Product Liability

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- ☐ 443 Housing/ Accommodations
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- ☐ 445 Amer. w/Disabilities - Employment
- ☐ 446 Amer. w/Disabilities - Other
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PRISONER PETITIONS
- ☐ 510 Motion to Vacate Sentence

HABEAS CORPUS:
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- ☐ 550 Civil Rights
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- ☐ 640 R.R. & Truck
- ☐ 650 Airline Regs.
- ☐ 660 Occupational Safety/Health
- ☐ 690 Other

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- ☐ 720 Labor/Mgmt. Relations
- ☐ 730 Labor/Mgmt.Reporting & Disclosure Act
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- ☐ 790 Other Labor Litigation
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- ☐ 900 Appeal of Fee Determination Under Equal Access to Justice
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V. ORIGIN (Place an "X" in One Box Only)

☒ 1 Original Proceeding ☐ 2 Removed from State Court ☐ 3 Remanded from Appellate Court ☐ 4 Reinstated or Reopened ☐ 5 Transferred from Another district (specify) ☐ 6 Multidistrict Litigation ☐ 7 Appeal to District Judge from Magistrate Judgment

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing **(Do not cite jurisdictional statutes unless diversity):**
28 U.S.C. §§ 1331, 1343, 2201, 2202; 42 U.S.C. 1983

Brief description of cause:
Challenge to California Air Resources Board's Low Carbon Fuel Standard

VII. REQUESTED IN COMPLAINT:

☐ CHECK IF THIS IS A **CLASS ACTION** UNDER F.R.C.P. 23 **DEMAND** $ 0.00

CHECK YES only if demanded in complaint:
JURY DEMAND: ☐ YES ☒ NO

VIII. RELATED CASE(S) IF ANY

(See instructions): JUDGE N/A DOCKET NUMBER N/A

DATE
December 23, 2009

SIGNATURE OF ATTORNEY OF RECORD

FOR OFFICE USE ONLY

RECEIPT # _____ AMOUNT _____ APPLYING IFP _____ JUDGE _____ MAG. JUDGE _____

EDC-JS44

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UNITED STATES DISTRICT COURT

EASTERN DISTRICT OF CALIFORNIA

ROCKY MOUNTAIN FARMERS UNION; REDWOOD COUNTY MINNESOTA CORN AND SOYBEANS GROWERS; PENNY NEWMAN GRAIN, INC.; GROWTH ENERGY and the RENEWABLE FUELS ASSOCIATION,

Plaintiffs,

v.

JAMES N. GOLDSTENE, in his official capacity as Executive Officer of the California Air Resources Board,

Defendant.

Case No. 1:09-cv-02234-LJO-DLB

CORRECTED COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

[28 U.S.C. §§ 1331, 1343]

Plaintiffs Rocky Mountain Farmers Union, Redwood County Minnesota Corn and Soybean Growers, Penny Newman Grain, Inc., Growth Energy, and Renewable Fuels Association respectfully state the following claims for declaratory and injunctive relief against Defendant James N. Goldstene, Executive Officer of the California Air Resources Board:

NATURE OF THE ACTION

1. This is a civil action for declaratory and injunctive relief under the Commerce and Supremacy Clauses of the U.S. Constitution. This action challenges the constitutionality of the California Low Carbon Fuel Standard ("LCFS"), which was recently adopted by the

California Air Resources Board. The LCFS is unconstitutional because (i) it conflicts with and is preempted by federal law, including the Energy Independence and Security Act of 2007; (ii) it interferes with the regulation of interstate commerce; and (iii) it discriminates against out-of-state corn ethanol producers and importers and improperly regulates their extraterritorial conduct. Defendant Goldstene is the state officer charged with enforcement of the challenged regulation. Absent relief from this Court, which has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331, 1343(a)(3), the Plaintiffs will suffer irreparable harm.

APPLICABLE STATUTES, JURISDICTION, VENUE, AND DESCRIPTION OF PARTIES

2. This action arises under 42 U.S.C. § 1983; the Commerce Clause of the U.S. Constitution, Article I, Section 8, clause 3; the Supremacy Clause of the U.S. Constitution, Article VI, paragraph 2; and the Clean Air Act ("CAA"), 42 U.S.C. §§ 7401-7671.

3. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. § 1331 (federal question jurisdiction) and 28 U.S.C. § 1343(a)(3) (jurisdiction to redress constitutional violations). Venue is proper in this Court under 28 U.S.C. § 1391(b). This Court is authorized to issue a declaratory judgment pursuant to 28 U.S.C.§§ 2201, 2202.

4. Plaintiff Rocky Mountain Farmers Union ("RMFU") is a cooperative association representing family farmers and ranchers in Wyoming, Colorado, and New Mexico. Its members include farmers who grow No. 2 corn for use in producing ethanol nationwide.[1]

5. Plaintiff Redwood County Minnesota Corn and Soybean Growers ("Minnesota Growers Association ") is a not-for-profit corporation whose members, located in Redwood County, Minnesota, include farmers who grow No. 2 corn for use in producing ethanol nationwide. The Minnesota Growers Association, and the RMFU are hereinafter referred to collectively as the "farmer plaintiffs."

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[1] No. 2 corn is the hard grain used in animal feed and ethanol production, different from the sweet corn sold for human consumption.

6. Plaintiff Penny Newman Grain, Inc. ("Penny Newman") is a leading merchant in the market for grains and feed by-products in the southern San Joaquin Valley and worldwide. Founded in 1878 as a mercantile store in Fresno, California, it maintains its headquarters at 2691 S. Cedar Avenue, and has other offices in California and Tennessee. The headquarters office shares a 62-acre site with a rail and truck loading/unloading facility, enclosed warehousing for 75,000 tons of dry commodities, open storage for an additional 75,000 tons of dry commodities, and tank storage for four million gallons of liquid commodities. Penny Newman also has substantial commodities handling and storage facilities in Hanford and Bakersfield.

7. Plaintiff Growth Energy is a non-profit corporation committed to the promise of agriculture and growing America's economy through cleaner, greener energy. Growth Energy was formed in 2009 and its members include firms that produce ethanol for use in motor fuels sold in Fresno County and other parts of the State, as well as other companies who provide equipment and technology used to produce ethanol from corn.

8. Plaintiff Renewable Fuels Association ("RFA") is a trade association whose members include a broad cross-section of businesses, individuals, and organizations dedicated to the expansion of the fuel ethanol industry in the United States. Its members include producers of ethanol for use in motor vehicle fuels sold in Fresno County and other parts of California; importers of ethanol into California from other states; growers of corn for use in the production of ethanol; and marketers of distillers grains and other feed co-products in the State. RFA members have been, and will continue to be, directly and adversely affected by the LCFS and its regulation of corn ethanol producers and importers and related industries.

9. Defendant James N. Goldstene is named as a defendant in his official capacity as Executive Director of CARB. He is the official charged with enforcement of the challenged regulation, and is authorized under the LCFS to investigate noncompliance with the regulation and impose fines for noncompliance.

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GENERAL ALLEGATIONS

A. Ethanol and Its Co-Products

10. Ethanol has been used as motor fuel in the United States since at least 1908, when the Model T was designed to run on alcohol. Since then, ethanol has been an important domestic alternative to foreign oil, and has been found to have significant environmental benefits, such as reducing smog-forming air pollutants and carcinogenic emissions, when blended into gasoline.

11. Significantly, ethanol reduces greenhouse gas ("GHG") emissions. Ethanol reduces direct GHG emissions between 48 to 59% compared to gasoline. New processing and agricultural technologies, as well as additional feedstocks, promise even higher CO_2 reductions.

12. In 2008, more than 9 billion gallons of ethanol were produced and used in the United States, reducing CO_2-equivalent GHG emissions by approximately 14 million tons. This reduction is equivalent to removing more than 2.1 million cars from America's roadways.

13. Ethanol is used in domestic fuel in primarily two forms: E85, which blends 85% ethanol with 15% gasoline; and E10, which blends 10% ethanol with 90% gasoline.

14. Approximately 98% of U.S. ethanol is derived from corn. No matter where corn is grown, or where it is turned into ethanol, or how it is turned into ethanol (the two methods are known as dry-milling and wet-milling), the resulting corn ethanol is a fungible commodity. In other words, corn ethanol made in Iowa with Illinois corn, in a dry-mill process using natural gas, is identical to corn ethanol made in California with California corn, produced by any process.

15. Finished corn ethanol travels by truck or rail to facilities where it is blended with gasoline, either as an oxygenate in reformulated gasoline, or as the primary component of E85.

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16. Since the first embargo by the Organization of the Petroleum Exporting Countries in the 1970's, the use of corn-based ethanol has displaced part of the petroleum needed to fuel U.S. cars and trucks in steadily rising increments.

17. While producing more corn for ethanol, America's farmers have also increased the yield from their croplands, increased exports of corn to feed foreign livestock, and decreased the area of land under tillage needed to produce corn.

18. The corn ethanol industry also provides much-needed employment in rural and farming areas. The industry employed nearly half a million Americans in 2008, during one of the worst recessions in U.S. history. It also contributed an estimated $65.5 billion to the Nation's Gross Domestic Product in 2008, of which more than $4.3 billion was invested in new capacity.

19. One important co-product of ethanol made from corn starch are "distillers grains," an animal nutrient used in cattle, dairy, swine and poultry operations worldwide, including on ranches and farms in the southern San Joaquin Valley. Distillers' grains are a high-protein alternative to corn and soy meal, and are increasingly used to replace grain in animal diets.

20. The market for distillers grains is a critical part of the business of many corn ethanol production companies, including the members of Growth Energy and the Renewable Fuels Association, as well as companies that trade in distillers' grains. Penny Newman is a leading merchant in the DSG market, including in the southern San Joaquin Valley.

B. Federal Law And Policy On Ethanol

21. Against that backdrop, the last two American presidents have recognized the need for mandates that require the oil companies to add ethanol to gasoline. As President Obama observed earlier this year, the emergence of the corn ethanol industry has made the industry "the primary near-term option for insulating consumers against future oil shocks."

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22. There has also been a broad consensus in Congress for decades that the U.S. ethanol industry has needed time to build a domestic production base free from predatory competition with foreign ethanol producers, who are controlled by foreign state-supported agricultural and energy enterprises that in turn are subject to little or no land conservation rules or fair-labor legislation. As then-Senator Obama remarked in one debate in 2007, it was not the purpose of federal law to "replace our dependence on foreign oil with a new dependence on foreign ethanol." As President Obama and others have recognized, the survival of the U.S. corn ethanol industry is critical to the transition from ethanol produced solely from corn starch to ethanol produced from a variety of plants and other types of biomass.

23. In the Energy Tax Act of 1978, Congress provided an exemption to a federal fuel excise tax on gasoline for fuel blended with at least 10% ethanol. In 1982, the Surface Transportation Assistance Act raised the gasoline excise tax, while increasing the exemption for ethanol. Later federal legislation in 1984, 1988, and 1990 further promoted the use of ethanol on the Nation's highways. The Transportation Efficiency Act of the 21st Century, enacted by Congress in 1998, extends ethanol tax incentives.

24. In 1990, Congress amended the Clean Air Act, and created new gasoline standards to reduce fuel emissions in highly polluted cites across the United States. The legislation required gasoline to contain fuel oxygenates, cleaner-burning additives that include ethanol.

25. On August 8, 2005, Congress enacted the Energy Policy Act of 2005, which sets a national goal of 30% penetration of alternative fuels in certain vehicles by 2010, and mandates the use of more than 7.5 billion gallons of ethanol and biodiesel by 2012. The Act also requires the federal government, alternative fuel providers, state and local governments, and private fleets to purchase vehicles that run on alternative fuels.

26. Two years later, on December 19, 2007, the President signed into law the Energy Independence and Security Act of 2007 ("EISA"). This comprehensive energy legislation increases the use of renewable fuels to 36 billion gallons by 2022, most of which

was intended to be corn ethanol. The Act provides that "the production of transportation fuels from renewable energy would help the United States meet rapidly growing domestic and global energy demands, reduce the dependence of the United States on energy imported from volatile regions of the world that are politically unstable, stabilize the cost and availability of energy, and safeguard the economy and security of the United States." Pub. L. 110-140, 121 Stat. 1492, 1722, § 806 (2007). The law requires the blending of increasing levels of ethanol into gasoline, starting this year. EISA also creates ambitious mandates for using ethanol from other feedstocks in addition to corn.

27. Achieving the targets set by EISA will require advances in biofuel development, continued private and public investments to compete with the prevailing business models of the oil industry, and the preservation of the American ethanol industry against predatory competition. Scientists across the nation are attempting to discover how to produce ethanol from domestic sources other than from corn. Biorefinery engineers are reducing their facilities' need for fossil-based fuels such as natural gas, or electricity produced from coal, to produce ethanol.

28. In EISA, Congress also recognized the potential need to evaluate the GHG emissions from biofuels usage, including corn ethanol. However, in light of the uncertainty of the scientific and economic principles necessary for assessing GHG emissions associated with biofuels, as well as the national interest in fostering the domestic corn ethanol industry and energy independence, Congress struck a balance and exempted ethanol produced at existing ethanol biorefineries and biorefineries then under construction from GHG reduction requirements.

29. Specifically, Congress limited any requirement to consider the potential GHG emissions impact of ethanol usage to ethanol produced at biorefineries that began construction on or after the date EISA was passed. *See* 42 U.S.C. § 7545(o)(2)(A)(i). As part of the dual goals of EISA to reduce dependence on foreign oil and to encourage further biofuel innovation, Congress thus "grandfathered" first generation biofuels. CARB, on the other hand, has

disagreed with the grandfathering of "existing and planned corn ethanol production plans from the GHG requirements," and creates a different, conflicting set of incentives for the "innovation and development of law carbon fuels" that discourages the use of biofuels from grandfathered facilities.

30. Congress also gave the U.S. Environmental Protection Agency ("EPA") authority to take additional steps to ensure that ethanol would be available from facilities like those operated by the members of Growth Energy and RFA, and to ensure that any regulation of biofuels "shall not ... restrict geographic areas in which renewable fuels may be used" or "harm the economy" of any State or region of the United States. 42 U.S.C. §§ 7545(o)(2)(A)(iii)(II)(aa), 7545(o)(7)(A). Although CARB has acknowledged that each "State is expected to consume an amount of [corn ethanol] production roughly proportional to its share of overall U.S. transportation fuel consumption," the effect of its LCFS regulation will be to draw more foreign ethanol and so-called "advanced" ethanol "to California in the next 10 years," and less of the corn ethanol expressly grandfathered by Congress.

31. Congress, the President, the American farming community, and the ethanol industry are all partners in the drive to use ethanol to reduce America's dependence on foreign energy.

C. CARB's Low Carbon Fuel Standard ("LCFS") Regulation

32. In 2006, the California Legislature passed the "Global Warming Solutions Act" to address public concern about the potential for man-made climate change, or global warming.

33. The goals of the Global Warming Solutions Act are not inconsistent with the goals of EISA and other federal laws, because the federal statutes also seek to reduce GHG emissions from the transportation sector. However, the specific steps taken by CARB to implement the Global Warming Solutions Act are flawed, and violate federal law.

34. In response to the Act, Governor Schwarzenegger in 2007 ordered the establishment of separate state regulations to govern the use of ethanol in gasoline sold in California, to reduce GHG emissions and address the issue of global warming.

35. Earlier this year, the California Air Resources Board ("CARB") approved a set of regulations to govern the marketing of gasoline-ethanol blends sold in California, called the "Low Carbon Fuel Standard" ("LCFS") regulation.

36. The focus of the LCFS is the "carbon intensity" of all feedstocks and fuel sources used in California. Although it does not directly dictate the content of any individual batches or types of fuels, the LCFS applies to "any transportation fuel" sold in California, including all fuels containing any amount of corn ethanol. LCFS § 95480.1(a)(1), (a)(8), and (a)(10).

37. The LCFS regulates all "producers" and "importers" of all covered fuels, requiring them to use state-approved methods to determine the carbon-intensity levels for the total amount of fuel they provide in California. LCFS § 95481(a)(36)–(a)(37), & (a)(23)-(a)(25); LCFS § 95486(a). Every year, starting in 2011, LCFS sets a steadily decreasing, statewide average carbon intensity value for all fuels (labeled Table 1 in the regulations, which are attached as Exhibit 1 to the Corrected Complaint). LCFS §§ 95482 & 95483.

38. Regulated parties must compare the carbon intensity of their fuels with the statewide average for the year. If the overall carbon intensity of products sold by a regulated party is below the statewide average, that party may generate a credit, provided it has obtained state approval to generate credits. LCFS § 95484(d)(2). If the overall carbon intensity of products sold by a regulated party is above the statewide average, that party will generate a deficit. LCFS § 95485. Deficits must be canceled by either retiring or purchasing credits from others. LCFS § 95484(b).

39. CARB issued a "look-up table" as part of the LCFS that assigns carbon intensity values to different fuels according to CARB's assumptions about their "fuel pathway." LCFS § 95486(b). (The "look-up table" is Table 6 in section 95486(b) of the regulation, attached hereto as Exhibit 1.) For the ethanol "fuel pathways," CARB made numerous assumptions about various processes associated with the lifecycle of corn ethanol from the time corn is first planted until the time when the ethanol from the corn reaches the end-user in California. Those

assumptions include: farming practices (including how the corn is fertilized and harvested); transportation of the corn to an ethanol biorefinery; the production process used at the biorefinery (including the energy used to convert the corn into ethanol, the efficiency of the plant and process, and the value of the process's co-products); how the ethanol produced at the biorefinery is transported to the end-users in California; and the ultimate combustion of the fuel containing that ethanol in end-users' vehicles in California.

40. For ethanol produced outside California, only two parts of the overall lifecycle of the ethanol—transportation of the ethanol within California and the combustion of ethanol in a motor vehicle in operation—occur inside California.

41. As part of the assumptions underlying the "look-up table," CARB purported to gauge the so-called indirect "land use or other indirect effect" from the production of corn itself, predominately in the Midwest, ascribing a penalty to all corn ethanol based on its assumed indirect contribution to worldwide GHG emissions. In CARB's view, by participating in the market for certain biofuels, regulated parties incentivize other, non-regulated parties all over the world to turn non-agricultural land into agricultural land; that land-use change by third parties supposedly releases GHG emissions, which CARB in turn attributes to the use of biofuels in this country.

42. The LCFS thus penalizes all corn ethanol based on the purported indirect effects of assumed farming practices that occur predominately outside California, and through the regulation, California seeks to curb or eliminate these farming practices throughout the United States and beyond by making the entire corn ethanol market responsible for them.

43. Unlike federal law, the LCFS draws significant distinctions between ethanol made from corn grown in the United States and ethanol made from sugar cane grown overseas (mainly, if not exclusively, Brazil), assigning to cane ethanol comparatively favorable carbon intensity vis-à-vis corn ethanol. The effect of the LCFS regulation thus will be to require regulated entities producing gasoline for sale in California quickly to try to obtain ethanol produced in Brazil, not the United States. This will injure the business of all corn ethanol

biorefineries in the United States, including those located in California.

44. The LCFS also draws significant distinctions among different producers of U.S. corn ethanol, depending on whether the ethanol is produced in California or outside California. The effect of those regulatory distinctions is to drive corn ethanol out of the California market for reasons independent of CARB's preference for Brazilian ethanol.

45. Notably, for at least four corn ethanol fuel pathways, the "look-up table" assigns a higher total carbon intensity value to corn ethanol originating in the Midwest than to identical corn ethanol originating in California, based on factors almost entirely beyond any single producer's control. One reason for the discrepancy is that the LCFS makes Midwest corn ethanol producers and importers responsible for the carbon emitted during the interstate transportation of their ethanol. Another reason for the discrepancy is CARB's apparent belief that California ethanol facilities will obtain more of their electricity from renewable and nuclear power sources. This interstate distinction is integral to and not functionally severable from the rest of the LCFS regulation, and there is no evidence that CARB would have adopted the other portions of the LCFS regulation without this distinction.

46. Under the LCFS, being able to generate credits, which are necessary for regulated parties to cancel their deficits, is valuable; otherwise, to continue to sell fuel in California, a regulated party must purchase credits, raising the cost of its product. The LCFS provides that a regulated party may generate credits only if the state approves of how that party produces, ships, delivers, and distributes its product, beginning at the location(s) where some components are or produced, be they in-state or out-of-state, and ending in California. LCFS § 95484(d)(2).

47. Furthermore, to continue to generate credits, a regulated party must seek state approval whenever that party makes a material change to any aspect of its shipping, delivery, and distribution methods. LCFS § 95484(d)(2)(D). The LCFS, in short, makes California the arbiter of interstate transportation of fuel and feedstocks.

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48. A "regulated party is subject to penalties to the extent permitted under State law." LCFS § 95484(b)(4)(B). Any violation of the LCFS regulation can also be enjoined. LCFS § 95484(e).

D. The Effects and Consequences of the LCFS

49. CARB expressly recognizes that the effect of the LCFS regulation will be to eliminate the California market for Midwest ethanol. Specifically, CARB expects "decreasing volumes of Midwestern corn ethanol," while California corn ethanol remains constant. CARB projects that the LCFS regulation will displace fuel feedstocks imported into California from other states, replacing them with biofuels produced in-state, which "keeps more money in the State."

50. While it effectively closes the California market to Midwest ethanol, the LCFS regulation produces no local benefits. As CARB concedes, unless it succeeds in exporting its regulatory scheme to other jurisdictions across the country and around the world, "fuel producers are free to ship lower-carbon-intensity fuels" to California, "while shipping higher-carbon-intensity fuels elsewhere."

51. CARB's regulatory approach to GHG emissions (*i.e*, considering the lifecycle of a fuel from "seed-to-wheel," *see* ¶ 39 above) attributes GHG emissions that theoretically could be released outside of California to attenuated conduct inside California.

52. Further, it is generally acknowledged that GHG emissions mix into the atmosphere so thoroughly that their only effects are worldwide. Stated differently, the immediate locality from which the GHG is emitted is affected no more or no less than the entire world. Therefore, a ton of GHG emitted in India or China has the same effect on GHGs in California as a ton of GHGs emitted in California or Iowa.

53. CARB has recognized that "GHG emission reductions by the LCFS alone will not result in significant climate change." It has stated that "[i]t is unlikely that the LCFS alone will result in any measurable climate change and reduction of global warming," and notes that one commenter provided an independent analysis of the effect of the LCFS using the

climate model used by the Intergovernmental Panel on Climate Change to show that the impact of the LCFS would be "undetectable."

54. CARB has also acknowledged that "[i]t is highly likely that supplies of ethanol with the lowest carbon intensity will be sent to California with the remaining 'high intensity' ethanol being sold outside of California." "The end result of this fuel 'shuffling' process is little or no net change in fuel carbon-intensity on a global scale."

55. Once the LCFS regulation is fully implemented, ethanol produced from corn starch by biorefineries located outside California will be excluded from the California market. By requiring the phase-out of such corn ethanol produced in the United States, the LCFS regulation will irreparably harm the market for renewable fuels and their co-products, including ethanol produced from corn starch and distillers' grains, in the United States.

56. While there are virtually no local benefits to the LCFS regulation, all plaintiffs in this action are injured by that regulation and the distinctions it draws among different sources of ethanol from biorefineries currently in production or that were in production at the time when EISA was enacted, and because the LCFS regulation will eliminate corn ethanol produced in the United States from use in gasoline sold in California.

57. Once the LCFS regulation is fully implemented, companies selling gasoline in California will not use U.S. corn ethanol because the LCFS regulation will make the use of U.S. corn ethanol economically impracticable. Companies selling gasoline in California will use ethanol from other sources, including ethanol imported from overseas.

58. California is the largest single state market for corn ethanol in the United States. Because it will be economically impracticable for companies subject to the LCFS to continue to rely on ethanol produced from corn starch, the market for corn growers nationwide, including corn by the farmer plaintiffs, will be substantially reduced, and will be subject to increased volatility. Each farmer plaintiff will be deprived of revenue, profits and goodwill as a result of implementation of the LCFS regulation. As a result, each farmer plaintiff has suffered a loss in the value of its business.

59. California is also a very significant market for distillers' grains. It is economically impracticable to produce large volumes of distillers' grains except at corn ethanol biorefineries. The volume of distillers' grains produced, and the volume of distillers' grains available for marketing, is directly related to the volume of ethanol produced from corn starch in the United States. The LCFS regulation will reduce the volume of corn starch ethanol produced in the United States and the volume of distillers' grains produced in the United States. Because Penny Newman Grain trades in distillers' grains, particularly in California, the LCFS regulation will deprive Penny Newman Grains of revenue, profits and goodwill, including revenue, profits and goodwill generated by its operations in Fresno, Hanford and Bakersfield. As a result, Penny Newman Grains has suffered a loss in the value of its business.

60. Members of Growth Energy and RFA own and operate corn-starch ethanol biorefineries across the United States. Because the LCFS regulation will close California as a market for corn-starch ethanol once the regulation is fully implemented, the LCFS regulation will deprive those members of Growth Energy and RFA of revenue, profits and goodwill. As a result, plaintiffs' members have suffered a loss in the value of their businesses.

CLAIMS FOR RELIEF

COUNT I—FOR DECLARATORY AND INJUNCTIVE RELIEF

THE LCFS IS PREEMPTED BY FEDERAL LAW

61. Plaintiffs reallege paragraphs 1 through 60 of this Corrected Complaint as if fully set forth herein.

62. The U.S. Constitution makes federal law and regulations "the supreme Law of the Land." U.S. CONST. art. VI, cl. 2.

63. State laws and regulations that conflict with federal requirements are also preempted, and a conflict will be found, when the state law or regulation "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress." *Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 492 (1987). A state law or regulation is also preempted "if it interferes with the methods by which the federal statute was designed to reach this goal."

Id. at 494.

64. When Congress enacted the Energy Independence and Security Act ("EISA") in 2007, it expressly exempted existing corn ethanol biorefineries (that were either in production or under construction on the date the EISA was enacted) from the requirement of having to claim or demonstrate reductions in GHG emissions. 42 U.S.C. § 7545(o)(2)(A)(i). The purpose of the §211(o) exemption was to protect investments in and the business value of corn ethanol biorefineries that existed when EISA was enacted, and thereby encourage further innovation.

65. Under the EISA, the members of Growth Energy and RFA are exempt under §211(o) from a requirement to claim or demonstrate reductions in GHG emissions because they operate facilities that are exempt.

66. The LCFS interferes with and frustrates the EISA because it effectively excludes ethanol production facilities operated by the members of Growth Energy and RFA from participating in the market for ethanol as a blending fuel for gasoline for sale in California. The LCFS discourages and, as a practical matter, prevents ethanol from those production facilities from participation in the state market.

67. State regulations such as the LCFS cannot prohibit or limit the sale of ethanol products based on the level of GHG emissions purportedly attributed to them when Congress has specifically foreclosed limitations on the sale of the same ethanol products based on GHG emissions.

68. More broadly, the LCFS regulation cannot create a different and conflicting set of incentives for ethanol producers from those adopted by Congress in the EISA. Congress sought to ensure future innovation by guaranteeing a market for ethanol from then-existing facilities, whereas CARB seeks to force innovation by rendering ethanol from those same facilities unmarketable in California. Thus, the LCFS regulation "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress" in the EISA.

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69. Indeed, CARB has stated that "[w]e believe the regulation is sending correct signals to the market that biofuels made from food crops are not going to ultimately get us to the end goal. To this point, the addition of indirect effects to fuel carbon intensities will help spur innovation for fuels derived from renewable sources, thus providing more fuel choices and diversifying the fuel pool." Therefore, the LCFS poses an additional obstacle to Congress's objectives in the EISA.

70. Moreover, regulation of ethanol in motor vehicle fuel to achieve global GHG reductions is not a traditional area of regulation in California or any other State. State regulations cannot prohibit or limit the sale of ethanol products based on the level of GHG emissions attributed to them when Congress has specifically foreclosed prohibitions or limitations on the sale of the same ethanol products based on the level of GHG emissions attributed to them.

71. CARB's enactment and enforcement of the LCFS intrudes upon a field expressly reserved by Congress for federal regulation, and its actions conflict with federal regulation of ethanol in motor vehicle fuel.

72. In addition, gasoline providers in California to whom plaintiffs sell ethanol are assured by EISA of the ability to use any type of corn ethanol from exempt facilities in blending gasoline for sale anywhere in the United States. Sections 211(o)(2)(A)(i) and 211(o)(2)(A)(iii)(II)(aa) of the EISA provide that federal regulations may not "restrict" geographic areas in which renewable fuels including ethanol from exempt production facilities may be used. 42 U.S.C. §§ 7545(o)(2)(A)(i), (o)(2)(A)(iii)(II)(aa). The LCFS has the effect of prohibiting the use of corn ethanol from those exempt facilities in California, thereby disadvantaging members of Growth Energy and RFA.

73. The LCFS also interferes with the U.S. Environmental Protection Agency's discretion under the EISA to adjust the percent reductions in lifecycle GHG emissions standards set forth by Congress based on commercial feasibility, as well as the EPA's discretion to waive such requirements altogether based on EPA's determination of harm to the

economy or environment of a state, region, or the United States. *See* 42 U.S.C. §§ 7545(o)(4), 7475(o)(7)(A). Congress, in furthering its goal of energy independence, thus provided a means for ensuring a robust domestic ethanol supply, whereas, regardless of commercial feasibility or impacts on the economy, the LCFS would force the importation of foreign feedstocks.

74. Accordingly, the LCFS is preempted by federal law.

75. The portions of the LCFS regulation that are preempted by federal law are not severable from the balance of the LCFS regulation.

76. All Plaintiffs in this action are injured by this aspect of the LCFS.

77. These violations of the U.S. Constitution threaten Plaintiffs with irreparable injury for which there is no adequate remedy at law.

COUNT II - FOR DECLARATORY AND INJUNCTIVE RELIEF

THE LCFS IMPROPERLY REGULATES, DISCRIMINATES AGAINST, AND UNDULY BURDENS INTERSTATE COMMERCE

78. Plaintiffs reallege paragraphs 1 through 77 of this Corrected Complaint as if fully set forth herein.

79. The Commerce Clause of the U.S. Constitution provides that "Congress shall have Power . . . To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes; . . ." U.S. Const. art. I, sect. 8, cl. 3.

80. The Commerce Clause prohibits state laws and regulations that, *inter alia*, (i) discriminate against interstate commerce; (ii) regulate extraterritorial commerce; or (iii) unduly burden interstate and extraterritorial commerce.

81. The LCFS facially and unconstitutionally discriminates against Midwest corn ethanol producers and importers by assigning them relatively higher total carbon intensity values vis-à-vis California corn ethanol producers, who use substantially the same production methods to produce substantially the same product, principally because Midwest corn ethanol originates out of state. Midwest corn ethanol producers and importers therefore are subject to the LCFS's deficit-reduction mandate before their in-state counterparts and are unable to

generate the same credits as their in-state, California counterparts. California effectively has erected a barrier to Midwest corn ethanol around its borders.

82. The LCFS unconstitutionally interferes with and regulates the channels of interstate commerce, and the use of the channels of interstate commerce, by subjecting out-of-state corn ethanol producers and importers to higher in-state burdens merely because they must ship their corn ethanol into California from out-of-state. This unconstitutional interference and regulation occurs when the LCFS ties the total carbon intensity value for out-of-state producers and importers to their interstate shipping decisions.

83. By requiring that producers and importers of corn ethanol obtain state approval of their interstate shipping, delivery, and distribution methods before the producers and importers can generate credits, the LCFS facially regulates the channels of interstate commerce and their use.

84. In actuality and in practical effect, the LCFS regulates conduct and commerce occurring wholly outside of California. The purpose of assigning carbon intensity values to fuels used in California is to change behavior occurring completely outside the state. By encouraging regulated parties to minimize the assumed carbon emissions throughout the putative lifecycle of a fuel, the LCFS regulates how out-of-state corn ethanol producers and importers produce and transport corn and corn ethanol, even though out-of-state production (farming, crop yields, harvesting practices, crop collection and transportation, fuel used in production, and energy efficiency of production) and much of the transportation of corn ethanol occur outside of California and have no effects in or connection with the California. And by penalizing all corn ethanol producers and importers for the indirect land use effects of their participation in the corn ethanol market, the LCFS also regulates extraterritorial land use. Accordingly, the LCFS unconstitutionally projects California state policy outside its borders.

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85. These regulatory effects are even more suspect when viewed in light of CARB's forecast that it expects "decreasing volumes of Midwestern corn ethanol," while California corn ethanol remains constant. Indeed, CARB projects that the LCFS regulation will displace fuel feedstocks imported into California from other states, replacing them with biofuels produced in-state, which "keeps more money in the State."

86. The burden of the LCFS on interstate commerce in corn ethanol is clearly excessive in relation to any purported local benefits. California is the nation's largest market for corn ethanol. The LCFS therefore will subject the great majority of American corn and corn ethanol producers and importers to significant burdens. Yet the LCFS will not result in any measurable global climate change, nor in any measurable reduction of the effects of global warming. California's share of those immeasurable changes and reductions is likewise immeasurable, meaning the LCFS provides no local benefit to the state.

87. The LCFS further burdens interstate commerce by effectively closing the California markets to corn ethanol from other States.

88. The LCFS is not justified by a valid public welfare, consumer protection, or procompetitive purpose unrelated to economic protectionism.

89. The portions of the LCFS regulation that violate the Commerce Clause are not severable from the balance of the LCFS regulation.

90. All Plaintiffs in this action are injured by this aspect of the LCFS.

91. These violations of the U.S. Constitution threaten Plaintiffs with irreparable injury for which there is no adequate remedy at law.

PRAYERS FOR RELIEF

WHEREFORE, plaintiffs respectfully request that this Court enter the following relief:

A. As to each Count, a declaratory judgment, pursuant to 28 U.S.C. § 2201 and Rule 57 of the Federal Rules of Civil Procedure, that the LCFS regulation violates federal law in the manner alleged above.

B. As to each Count preliminary and permanent injunctions, pursuant to Rule 65 of the Federal Rules of Civil Procedure, enjoining defendant from implementing or enforcing the LCFS regulation.

C. Such other relief available under federal law that may be considered appropriate under the circumstances, including other fees and costs of this action to the extent allowed by federal law (including but not limited to 42 U.S.C. § 1988), and further relief as this Court deems just and proper.

Dated: December 28, 2009

Respectfully submitted,

JONES HELSLEY PC

By: /s/ Timothy Jones
Timothy Jones,
Attorneys for all Petitioners

CORRECTED COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

[28 U.S.C. §§ 1331, 1343]

EXHIBIT "A"

FINAL REGULATION ORDER

Adopt new sections 95480, 95480.1, 95481, 95482, 95483, 95484, 95485, 95486, 95487, 95488, 95489, and 95490, title 17, California Code of Regulations (CCR), to read as follows:

(Note: The entire text of Subarticle 7 and sections 95480, 95480.1, 95481, 95482, 95483, 95484, 95485, 95486, 95487, 95488, 95489, and 95490 is new language. Subsection headings are shown in *Italics* and are to be italicized in Barclays California Code of Regulations.)

Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse Gas Emission Reductions

Subarticle 7. Low Carbon Fuel Standard

Section 95480. Purpose

The purpose of this regulation is to implement a low carbon fuel standard, which will reduce greenhouse gas emissions by reducing the full fuel-cycle, carbon intensity of the transportation fuel pool used in California, pursuant to the California Global Warming Solutions Act of 2006 (Health & Safety Code (H&S), section 38500 et.seq.).

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975).

Section 95480.1. Applicability

(a) *Applicability of the Low Carbon Fuel Standard.*

Except as provided in this section, the California Low Carbon Fuel Standard regulation, title 17, California Code of Regulations (CCR), sections 95480 through 95490 (collectively referred to as the "LCFS") applies to any transportation fuel, as defined in section 95481, that is sold, supplied, or offered for sale in California, and to any person who, as a regulated party defined in section 95481 and specified in section 95484(a), is responsible for a transportation fuel in a calendar year. The types of transportation fuels to which the LCFS applies include:

(1) California reformulated gasoline ("gasoline" or "CaRFG");
(2) California diesel fuel ("diesel fuel" or "ULSD");

(3) Fossil compressed natural gas ("Fossil CNG") or fossil liquefied natural gas ("Fossil LNG");
(4) Biogas CNG or biogas LNG;
(5) Electricity;
(6) Compressed or liquefied hydrogen ("hydrogen");
(7) A fuel blend containing hydrogen ("hydrogen blend");
(8) A fuel blend containing greater than 10 percent ethanol by volume;
(9) A fuel blend containing biomass-based diesel;
(10) Denatured fuel ethanol ("E100");
(11) Neat biomass-based diesel ("B100"); and
(12) Any other liquid or non-liquid fuel.

The provisions and requirements in section 95484(c), (d) and (e) apply starting January 1, 2010. All other provisions and requirements of the LCFS regulation apply starting January 1, 2011.

(b) *Credit Generation Opt-In Provision for Specific Alternative Fuels.* Each of the following alternative fuels is presumed to have a full fuel-cycle, carbon intensity that meets the compliance schedules set forth in section 95482(b) and (c) through December 31, 2020. With regard to an alternative fuel listed below, the regulated party for the fuel must meet the requirements of the LCFS regulation only if the regulated party elects to generate LCFS credits:

(1) Electricity;
(2) Hydrogen;
(3) A hydrogen blend;
(4) Fossil CNG derived from North American sources;
(5) Biogas CNG; and
(6) Biogas LNG.

(c) *Exemption for Specific Alternative Fuels.* The LCFS regulation does not apply to an alternative fuel that meets the criteria in either (c)(1) or (2) below:

(1) An alternative fuel that:

(A) is not a biomass-based fuel; and
(B) is supplied in California by all providers of that particular fuel for transportation use at an aggregated volume of less than 420 million MJ (3.6 million gasoline gallon equivalent) per year;

A regulated party that believes it is subject to this exemption has the sole burden of proving to the Executive Officer's satisfaction that the exemption applies to the regulated party.

(2) Liquefied petroleum gas (LPG or "propane").

(d) *Exemption for Specific Applications.* The LCFS regulation does not apply to any transportation fuel used in the following applications:

(1) Aircraft;
(2) Racing vehicles, as defined in H&S section 39048;
(3) Military tactical vehicles and tactical support equipment, as defined in title 13, CCR, section 1905(a) and title 17, CCR, section 93116.2(a)(36), respectively;
(4) Locomotives not subject to the requirements specified in title 17, CCR, section 93117; and
(5) Ocean-going vessels, as defined in title 17, CCR, section 93118.5(d). This exemption does not apply to recreational and commercial harbor craft, as defined in title 17, CCR, section 93118.5(d).

(e) Nothing in this LCFS regulation (title 17, CCR, § 95480 et seq.) may be construed to amend, repeal, modify, or change in any way the California reformulated gasoline regulations (CaRFG, title 13, CCR, § 2260 et seq.), the California diesel fuel regulations (title 13, CCR, §§ 2281-2285 and title 17, CCR, § 93114), or any other applicable State or federal requirements. A person, including but not limited to the regulated party as that term is defined in the LCFS regulation, who is subject to the LCFS regulation or other State and federal regulations shall be solely responsible for ensuring compliance with all applicable LCFS requirements and other State and federal requirements, including but not limited to the CaRFG requirements and obtaining any necessary approvals, exemptions, or orders from either the State or federal government.

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975).

Section 95481. Definitions and Acronyms

(a) *Definitions.* For the purposes of sections 95480 through 95489, the definitions in Health and Safety Code sections 39010 through 39060 shall apply, except as otherwise specified in this section, section 95480.1, or sections 95482 through 95489:

(1) "Alternative fuel" means any transportation fuel that is not CaRFG or a diesel fuel, including but not limited to, those fuels specified in section 95480.1(a)(3) through (a)(12).

(2) "B100" means biodiesel meeting ASTM D6751-08 (October 1, 2008) (*Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels*), which is incorporated herein by reference.

(3) "Biodiesel" means a diesel fuel substitute produced from nonpetroleum renewable resources that meet the registration requirements for fuels and fuel additives established by the Environmental Protection Agency under section 211 of the Clean Air Act. It includes biodiesel meeting all the following:

(A) Registered as a motor vehicle fuel or fuel additive under 40 CFR part 79;
(B) A mono-alkyl ester;
(C) Meets ASTM D 6751-08 (October 1, 2008), *Standard Specification for Biodiesel Fuel Blendstock (B100) for Middle Distillate Fuels,* which is incorporated herein by reference;
(D) Intended for use in engines that are designed to run on conventional diesel fuel; and
(E) Derived from nonpetroleum renewable resources.

(4) "Biodiesel Blend" means a blend of biodiesel and diesel fuel containing 6% (B6) to 20% (B20) biodiesel and meeting ASTM D7467-08 (October 1, 2008), *Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to 20)*, which is incorporated herein by reference.

(5) "Biogas (also called biomethane) means natural gas that meets the requirements of 13 CCR §2292.5 and is produced from the breakdown of organic material in the absence of oxygen. Biogas is produced in processes including, but not limited to, anaerobic digestion, anaerobic decomposition, and thermo-chemical decomposition. These processes are applied to biodegradable biomass materials, such as manure, sewage, municipal solid waste, green waste, and waste from energy crops, to produce landfill gas, digester gas, and other forms of biogas.

(6) "Biogas CNG" means CNG consisting solely of compressed biogas.

(7) "Biogas LNG" means LNG consisting solely of liquefied biogas.

(8) "Biomass" has the same meaning as defined in "Renewable Energy Program: Overall Program Guidebook," 2nd Ed., California Energy Commission, Report No. CEC-300-2007-003-ED2-CMF, January 2008, which is incorporated herein by reference.

(9) "Biomass-based diesel" means a biodiesel (mono-alkyl ester) or a renewable diesel that complies with ASTM D975-08ae1, (edited December 2008), *Specification for Diesel Fuel Oils*, which is incorporated herein by reference. This includes a renewable fuel derived from co-processing biomass with a petroleum feedstock.

(10) "Blendstock" means a component that is either used alone or is blended with another component(s) to produce a finished fuel used in a motor vehicle. Each blendstock corresponds to a fuel pathway in the California-modified GREET. A blendstock that is used directly as a transportation fuel in a vehicle is considered a finished fuel.

(11) "Carbon intensity" means the amount of lifecycle greenhouse gas emissions, per unit of energy of fuel delivered, expressed in grams of carbon dioxide equivalent per megajoule (gCO2E/MJ).

(12) "Compressed Natural Gas (CNG)" means natural gas that has been compressed to a pressure greater than ambient pressure and meets the requirements of title 13, CCR, section 2292.5.

(13) "Credits" and "deficits" means the measures used for determining a regulated party's compliance with the average carbon intensity requirements in sections 95482 and 95483. Credits and deficits are denominated in units of metric tons of carbon dioxide equivalent (CO2E), and are calculated pursuant to section 95485(a).

(14) "Diesel Fuel" (also called conventional diesel fuel) has the same meaning as specified in title 13, CCR, section 2281(b).

(15) "Diesel Fuel Blend" means a blend of diesel fuel and biodiesel containing no more than 5% (B5) biodiesel by weight and meeting ASTM D975-08ae1, (edited December 2008), *Specification for Diesel Fuel Oils*, which is incorporated herein by reference.

(16) "E100," also known as "Denatured Fuel Ethanol," means nominally anhydrous ethyl alcohol meeting ASTM D4806-08 (July 1, 2008), *Standard Specification for Denatured Fuel Ethanol for Blending with*

Gasolines for Use as Automotive Spark-Ignition Engine Fuel, which is incorporated herein by reference.

(17) "Executive Officer" means the Executive Officer of the Air Resources Board, or his or her designee.

(18) "Final Distribution Facility" means the stationary finished fuel transfer point from which the finished fuel is transferred into the cargo tank truck, pipeline, or other delivery vessel for delivery to the facility at which the finished fuel will be dispensed into motor vehicles.

(19) "Finished fuel" means a fuel that is used directly in a vehicle for transportation purposes without requiring additional chemical or physical processing.

(20) "Fossil CNG" means CNG that is derived solely from petroleum or fossil sources, such as oil fields and coal beds.

(20.5) "GTAP" or "GTAP Model" means the Global Trade Analysis Project Model (February 2009), which is hereby incorporated by reference, and is a software package comprised of:

(A) RunGTAP (February 2009), a visual interface for use with the GTAP databases (posted at http://www.arb.ca.gov/fuels/lcfs/lcfs.htm in February 2009 and available for download at https://www.gtap.agecon.purdue.edu/products/rungtap/default.asp), which is hereby incorporated by reference;

(B) GTAP-BIO (February 2009), the GTAP model customized for corn ethanol (posted at http://www.arb.ca.gov/fuels/lcfs/lcfs.htm in February 2009 and available with its components as a .zip file for download at http://www.arb.ca.gov/fuels/lcfs/gtapbio.zip); which is hereby incorporated by reference; and

(C) GTP-SGR (February 2009), the GTAP model customized for sugarcane ethanol (posted at http://www.arb.ca.gov/fuels/lcfs/lcfs.htm in February 2009 and available with its components as a .zip file for download at http://www.arb.ca.gov/fuels/lcfs/gtpsgr.zip), which is hereby incorporated by reference.

(21) "HDV" means a heavy-duty vehicle that is rated at 14,001 or more pounds gross vehicle weight rating (GVWR).

(22) "Home fueling" means the dispensing of fuel by use of a fueling appliance that is located on or within a residential property with access limited to a single household.

(23) "Import" means to bring a product from outside California into California.

(24) "Importer" means the person who owns an imported product when it is received at the import facility in California.

(25) "Import facility" means, with respect to any imported liquid product, the storage tank in which the product was first delivered from outside California into California, including, in the case of liquid product imported by cargo tank and delivered directly to a facility for dispensing the product into motor vehicles, the cargo tank in which the product was imported.

(26) "Intermediate calculated value" means a value that is used in the calculation of a reported value but does not by itself meet the reporting requirement under section 95484(c).

(27) "LDV & MDV" means a vehicle category that includes both light-duty (LDV) and medium-duty vehicles (MDV).

(A) "LDV" means a vehicle that is rated at 8500 pounds or less GVWR.
(B) "MDV" means a vehicle that is rated between 8501 and 14,000 pounds GVWR.

(28) "Lifecycle greenhouse gas emissions" means the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Executive Officer, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer, where the mass values for all greenhouse gases are adjusted to account for their relative global warming potential.

(29) "Liquefied Natural Gas (LNG)" means natural gas that has been liquefied and meets the requirements of title 13, CCR, section 2292.5.

(30) "Liquefied petroleum gas (LPG or propane)" has the same meaning as defined in Vehicle Code section 380.

(31) "Motor vehicle" has the same meaning as defined in section 415 of the Vehicle Code.

(32) "Multi-fuel vehicle" means a vehicle that uses two or more distinct fuels for its operation. A multi-fuel vehicle (also called a vehicle operating in blended-mode) includes a bi-fuel vehicle and can have two or more fueling ports onboard the vehicle. A fueling port can be an electrical plug or a receptacle for liquid or gaseous fuel. As an example, a plug-in hybrid hydrogen internal combustion engine vehicle (ICEV) uses both electricity and hydrogen as the fuel source and can be "refueled" using two separately distinct fueling ports.

(33) "Multimedia evaluation" has the same meaning as specified in H&S section 43830.8(b) and (c).

(34) "Natural gas" means a mixture of gaseous hydrocarbons and other compounds, with at least 80 percent methane (by volume), and typically sold or distributed by utilities, such as any utility company regulated by the California Public Utilities Commission.

(35) "Private access fueling facility" means a fueling facility with access restricted to privately-distributed electronic cards ("cardlock") or is located in a secure area not accessible to the public.

(36) "Producer" means, with respect to any liquid fuel, the person who owns the liquid fuel when it is supplied from the production facility.

(37) "Production facility" means, with respect to any liquid fuel (other than LNG), a facility in California at which the fuel is produced. "Production facility" means, with respect to natural gas (CNG, LNG or biogas), a facility in California at which fuel is converted, compressed, liquefied, refined, treated, or otherwise processed into CNG, LNG, biogas, or biogas-natural gas blend that is ready for transportation use in a vehicle without further physical or chemical processing.

(38) "Public access fueling facility" means a fueling facility that is not a private access fueling dispenser.

(39) "Regulated party" means a person who, pursuant to section 95484(a), must meet the average carbon intensity requirements in section 95482 or 95483.

(40) "Renewable diesel" means a motor vehicle fuel or fuel additive that is all the following:

(A) Registered as a motor vehicle fuel or fuel additive under 40 CFR part 79;
(B) Not a mono-alkyl ester;

(C) Intended for use in engines that are designed to run on conventional diesel fuel; and
(D) Derived from nonpetroleum renewable resources.

(41) "Single fuel vehicle" means a vehicle that uses a single external source of fuel for its operation. The fuel can be a pure fuel, such as gasoline, or a blended fuel such as E85 or a diesel fuel containing biomass-based diesel. A dedicated fuel vehicle has one fueling port onboard the vehicle. Examples include BEV, E85 FFV, vehicles running on a biomass-based diesel blend, and grid-independent hybrids such as a Toyota Prius.®

(42) "Transportation fuel" means any fuel used or intended for use as a motor vehicle fuel or for transportation purposes in a nonvehicular source.

(b) *Acronyms.* For the purposes of sections 95480 through 95489, the following acronyms apply.

(1) "ASTM" means ASTM International (formerly American Society for Testing and Materials).
(2) "BEV" means battery electric vehicles.
(3) "CARBOB" means California reformulated gasoline blendstock for oxygenate blending
(4) "CaRFG" means California reformulated gasoline.
(5) "CEC" means California Energy Commission.
(6) "CFR" means code of federal regulations.
(7) "CI" means carbon intensity.
(8) "CNG" means compressed natural gas.
(9) "EER" means energy economy ratio.
(10) "FCV" means fuel cell vehicles.
(11) "FFV" means flex fuel vehicles.
(12) "gCO2E/MJ" means grams of carbon dioxide equivalent per mega joule.
(13) "GREET" means the Greenhouse gases, Regulated Emissions, and Energy use in Transportation model.
(14) "GVRW" means gross vehicle weight rating.
(15) "HDV" means heavy-duty vehicles.
(16) "ICEV" means internal combustion engine vehicle.
(17) "LCFS" means Low Carbon Fuel Standard.
(18) "LDV" means light-duty vehicles.
(19) "LNG" means liquefied natural gas.
(20) "LPG" means liquefied petroleum gas.
(21) "MDV" means medium-duty vehicles.
(22) "MT" means metric tons of carbon dioxide equivalent.
(23) "PHEV" means plug-in hybrid vehicles.
(24) "ULSD" means California ultra low sulfur diesel.

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975).

Section 95482. Average Carbon Intensity Requirements for Gasoline and Diesel

(a) Starting January 1, 2011 and for each year thereafter, a regulated party must meet the average carbon intensity requirements set forth in Table 1 and Table 2 of this section for its transportation gasoline and diesel fuel, respectively, in each calendar year. For 2010 only, a regulated party does not need to meet a carbon intensity requirement, but it must meet the reporting requirements set forth in section 95484(c).

(b) *Requirements for gasoline and fuels used as a substitute for gasoline.*

Table 1. LCFS Compliance Schedule for 2011 to 2020 for Gasoline and Fuels Used as a Substitute for Gasoline.

Year	Average Carbon Intensity (gCO2E/MJ)	% Reduction
2010	Reporting Only	
2011	95.61	0.25%
2012	95.37	0.5%
2013	94.89	1.0%
2014	94.41	1.5%
2015	93.45	2.5%
2016	92.50	3.5%
2017	91.06	5.0%
2018	89.62	6.5%
2019	88.18	8.0%
2020 and subsequent years	86.27	10.0%

(c) *Requirements for diesel fuel and fuels used as a substitute for diesel fuel.*

Table 2. LCFS Compliance Schedule for 2011 to 2020 for Diesel Fuel and Fuels Used as a Substitute for Diesel Fuel.

Year	Average Carbon Intensity (gCO2E/MJ)	% Reduction
2010	Reporting Only	
2011	94.47	0.25%
2012	94.24	0.5%
2013	93.76	1.0%
2014	93.29	1.5%
2015	92.34	2.5%
2016	91.40	3.5%
2017	89.97	5.0%
2018	88.55	6.5%
2019	87.13	8.0%
2020 and subsequent years	85.24	10.0%

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5,

38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975).

Section 95483. Average Carbon Intensity Requirements for Alternative Fuels

(a) The requirements of this section apply to a regulated party that provides an alternative fuel as a transportation fuel in California.

(b) *Carbon Intensity Requirements for an Alternative Fuel Other Than a Biomass-Based Diesel Fuel -Intended for Use in a Single Fuel Vehicle.*

(1) A regulated party must use the average carbon intensity value for gasoline set forth in section 95482(b) for its alternative fuel, other than biomass-based diesel fuel, if the alternative fuel is used or intended to be used in any single-fuel:

(A) light-duty vehicle, or

(B) medium-duty vehicle.

(2) A regulated party must use the average carbon intensity value for diesel fuel set forth in section 95482(c) for its alternative fuel, other than biomass-based diesel fuel, that is used or intended to be used in any single-fuel application not identified in section 95483(b)(1).

(c) *Carbon Intensity Requirements for Biomass-Based Diesel Fuel Provided for Use in a Single Fuel Vehicle.* A regulated party must use the average carbon intensity value for diesel fuel set forth in section 95482(c) if its biomass-based diesel fuel is used or intended to be used in any single-fuel:

(1) light-duty vehicle;

(2) medium-duty vehicle;

(3) heavy-duty vehicle;

(4) off-road transportation application;

(5) off-road equipment application;

(6) locomotive or commercial harbor craft application; or

(7) non-stationary source application not otherwise specified in 1-6 above.

(d) *Carbon Intensity Requirements for Transportation Fuels Intended for Use in Multi-Fuel Vehicles.*

(1) For an alternative fuel provided for use in a multi-fueled vehicle, a regulated party must use:

(A) the average carbon intensity value for gasoline set forth in section 95482(b) if one of the fuels used in the multi-fuel vehicle is gasoline; or

(B) the average carbon intensity value for diesel fuel set forth in section 95482(c) if one of the fuels used in the multi-fuel vehicle is diesel fuel.

(2) For an alternative fuel provided for use in a multi-fueled vehicle (including a bi-fuel vehicle) that does not use gasoline or diesel fuel, a regulated party must use:

(A) the average carbon intensity value for gasoline set forth in section 95482(b) if that alternative fuel is used or intended to be used in:

1. light-duty vehicle, or

2. medium-duty vehicle.

(B) the average carbon intensity value for diesel set forth in section 95482(c) if that alternative fuel is used or intended to be used in an application not identified in section 95483(d)(2)(A).

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975).

Section 95484. Requirements for Regulated Parties

(a) *Identification of Regulated Parties.* The purpose of this part is to establish the criteria by which a regulated party is determined. The regulated party is initially established for each type of transportation fuel, but this part provides for the transfer of regulated party status and the associated compliance obligations by agreement, notification, or other means, as specified below.

(1) *Regulated Parties for Gasoline.*

(A) *Designation of Producers and Importers as Regulated Parties.*

1. *Where Oxygenate Is Added to Downstream CARBOB.*

For gasoline consisting of CARBOB and an oxygenate added downstream from the California facility at which the CARBOB was produced or imported, the regulated party is initially the following:

a. With respect to the CARBOB, the regulated party is the producer or importer of the CARBOB; and

b. With respect to the oxygenate, the regulated party is the producer or importer of the oxygenate.

2. *Where No Separate CARBOB.* For gasoline that does not include CARBOB that had previously been supplied from the facility at which was produced or imported, the regulated party for the gasoline is the producer or importer of the gasoline.

(B) *Effect of Transfer of CARBOB by Regulated Party.*

1. *Threshold Determination Whether Recipient of CARBOB Is a Producer or Importer.* Whenever a person who is the regulated party for CARBOB transfers ownership of the CARBOB, the recipient must notify the transferor whether the recipient is a producer or importer for purposes of this section 95484(a)(1)(B).

2. *Producer or Importer Acquiring CARBOB Becomes the Regulated Party Unless Specified Conditions Are Met.* Except as provided for in section 95484(a)(1)(B)3., when a person who is the regulated party transfers ownership of the CARBOB to a producer or importer, the recipient of ownership of the CARBOB (i.e., the transferee) becomes the

regulated party for it. The transferor must provide the recipient a product transfer document that prominently states the information specified in paragraphs a. and b. below, and the transferor and recipient must meet the requirements specified in paragraph c., as set forth below:

a. the volume and average carbon intensity of the transferred CARBOB. For a transferor that is a regulated party subject to section 95486(b)(2)(A)2., the transferor of CARBOB may report as the "average carbon intensity" on the product transfer document the total carbon intensity value for CARBOB as shown in the Carbon Intensity Lookup Table; and

b. the recipient is now the regulated party for the acquired CARBOB and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to the CARBOB.

c. For purposes of section 95485(a), except as provided in paragraph c.iii. of this provision:

i. the transferor under a. above must include the $Deficits^{XD}_{Incremental}$, as defined and set forth in section 95486(b)(2)(A)2.a., in the transferor's annual credits and deficits balance calculation set forth in section 95485(a)(2); and

ii. the recipient under b. above must include $Deficits^{XD}_{Base}$, as defined and set forth in section 95486(b)(2)(A)2.a., in the recipient's annual credits and deficits balance calculation set forth in section 95485(a)(2).

iii. Paragraphs c.i and c.ii. above notwithstanding, the transferor and recipient of CARBOB may, by the time the ownership is transferred, specify by written contract which party is responsible for accounting for the base deficit and incremental deficit in the annual credits and deficits balance calculation set forth in section 95485(a)(2).

3. *Transfer of CARBOB or Gasoline to a Producer or Importer and Retaining Compliance Obligation.*

Section 95484(a)(1)(B)2. notwithstanding, a regulated party transferring ownership of CARBOB to a producer or importer may elect to remain the regulated party and retain the LCFS compliance obligation for the transferred CARBOB by providing the recipient at the time of transfer with a product transfer document that prominently states that the transferor has elected to remain the regulated party with respect to the CARBOB.

4. *If Recipient Is Not a Producer or Importer, Regulated Party Transferring CARBOB Remains Regulated Party Unless Specified Conditions Are Met.* When a person who is the regulated party for CARBOB transfers ownership of the CARBOB to a person who is not a producer or importer, the transferor remains the regulated party unless the conditions of section 95484(a)(1)(B)5. are met.

5. *Conditions Under Which a Non-Producer and Non-Importer Acquiring Ownership of CARBOB Becomes the Regulated Party.* A person, who is neither a producer nor an importer and who acquires ownership of CARBOB from the regulated party, becomes the regulated party for the CARBOB if, by the time ownership is transferred, the two parties agree by written contract that the person acquiring ownership accepts the LCFS compliance obligation as the regulated party. For the transfer of regulated party obligations to be effective, the transferor must also provide the recipient a product transfer document that prominently states the information specified in paragraphs a. and b. below, and the transferor and recipient must meet the requirements specified in paragraph c., as set forth below::

a. the volume and average carbon intensity of the transferred CARBOB. For a transferor that is a regulated party subject to section 95486(b)(2)(A)2., the transferor of CARBOB may report as the "average carbon intensity" on the product transfer document the total carbon intensity value for CARBOB as shown in the Carbon Intensity Lookup Table; and

b. the recipient is now the regulated party for the acquired CARBOB and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to the CARBOB.

c. For purposes of section 95485(a), except as provided in paragraph c.iii. of this provision:

i. the transferor under a. above must include the $Deficits^{XD}_{Incremental}$, as defined and set forth in section 95486(b)(2)(A)2.a., in the transferor's annual credits and deficits balance calculation set forth in section 95485(a)(2); and

ii. the recipient under b. above must include $Deficits^{XD}_{Base}$, as defined and set forth in section 95486(b)(2)(A)2.a., in the recipient's annual credits and deficits balance calculation set forth in section 95485(a)(2).

iii. Paragraphs c.i and c.ii. above notwithstanding, the transferor and recipient of CARBOB may, by the time the ownership is transferred, specify by written contract which party is responsible for accounting for the base deficit and incremental deficit in the annual credits and deficits balance calculation set forth in section 95485(a)(2).

(C) *Effect of Transfer By Regulated Party of Oxygenate to Be Blended With CARBOB.*

1. *Person Acquiring the Oxygenate Becomes the Regulated Party Unless Specified Conditions Are Met.* Except as provided in section 95484(a)(1)(C)2., when a person who is the regulated party for oxygenate to be blended with CARBOB transfers ownership of the oxygenate before it has been blended with CARBOB, the recipient of ownership of the oxygenate (i.e., the transferee) becomes the regulated party for it. The transferor must provide the recipient a product transfer document that prominently states:

a. the volume and carbon intensity of the transferred oxygenate; and

b. the recipient is now the regulated party for the acquired oxygenate and accordingly is responsible for meeting the requirements of the LCFS with respect to the oxygenate.

2. *Transfer of Oxygenate and Retaining Compliance Obligation.* Section 95484(a)(1)(C)1. notwithstanding, a regulated party transferring ownership of oxygenate may elect to remain the regulated party and retain the LCFS compliance obligation for the transferred oxygenate by providing the recipient at the time of transfer with a product transfer document that prominently states that the transferor has elected to remain the regulated party with respect to the oxygenate.

(D) *Effect of Transfer by a Regulated Party of Gasoline to be Blended With Additional Oxygenate.* A person who is the sole regulated party for a batch of gasoline and is transferring ownership of the gasoline to another party that will be combining it with additional oxygenate may transfer his or her obligations as a regulated party if all of the conditions set forth below are met.

1. Blending the additional oxygenate into the gasoline is not prohibited by title 13, California Code of Regulations, section 2262.5(d).

2. By the time ownership is transferred the two parties agree by written contract that the person acquiring ownership accepts the LCFS compliance obligations as a regulated party with respect to the gasoline.

3. The transferor provides the recipient a product transfer document that prominently states the information specified in paragraphs a. and b. below, and the transferor and recipient must meet the requirements specified in paragraph c., as set forth below:

   a. the volume and average carbon intensity of the transferred gasoline. For a transferor that is a regulated party subject to section 95486(b)(2)(A)2., the transferor may use the total carbon intensity value for CARBOB along with the carbon intensity for the oxygenate, as shown in the Carbon Intensity Lookup Table, for calculating the "average carbon intensity" on the product transfer document; and

   b. the recipient is now the regulated party for the acquired gasoline and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to the gasoline.

c. For purposes of section 95485(a), except as provided in paragraph c.iii. of this provision:

i. the transferor under a. above must include the $Deficits^{XD}_{Incremental}$, as defined and set forth in section 95486(b)(2)(A)2.a., in the transferor's annual credits and deficits balance calculation set forth in section 95485(a)(2); and

ii. the recipient under b. above must include $Deficits^{XD}_{Base}$, as defined and set forth in section 95486(b)(2)(A)2.a., in the recipient's annual credits and deficits balance calculation set forth in section 95485(a)(2).

iii. Paragraphs c.i and c.ii. above notwithstanding, the transferor and recipient of CARBOB may, by the time the ownership is transferred, specify by written contract which party is responsible for accounting for the base deficit and incremental deficit in the annual credits and deficits balance calculation set forth in section 95485(a)(2).

4. The written contract between the parties includes an agreement that the recipient of the gasoline will be blending additional oxygenate into the gasoline.

(E) *Effect of Transfer by a Regulated Party of Oxygenate to be Blended With Gasoline.* Where oxygenate is added to gasoline, the regulated party with respect to the oxygenate is initially the producer or importer of the oxygenate. Transfers of the oxygenate are subject to section 95484(a)(1)(C).

(2) *Regulated Party for Diesel Fuel and Diesel Fuel Blends.*

(A) *Designation of Producers and Importers as Regulated Parties.*

1. *Where Biomass-Based Diesel Is Added to Downstream Diesel Fuel.*

For a diesel fuel blend consisting of diesel fuel and biomass-based diesel added downstream from the California facility at which the diesel fuel was produced or imported, the regulated party is initially the following:

a. With respect to the diesel fuel, the regulated party is the producer or importer of the diesel fuel; and

b. With respect to the biomass-based diesel, the regulated party is the producer or importer of the biomass-based diesel.

2. *All Other Diesel Fuels.* For any other diesel fuel that does not fall within section 95484(a)(2)(A)1., the regulated party is the producer or importer of the diesel fuel.

(B) *Effect of Transfer of Diesel Fuel and Diesel Fuel Blends by Regulated Party.*

1. *Threshold Determination Whether Recipient of Diesel Fuel or Diesel Fuel Blend Is a Producer or Importer.*

Whenever a person who is the regulated party for diesel fuel or a diesel fuel blend transfers ownership before it has been transferred from its final distribution facility, the recipient must notify the transferor whether the recipient is a producer or importer for purposes of this section 95484(a)(2)(B).

2. *Producer or Importer Acquiring Diesel Fuel or Diesel Fuel Blend Becomes the Regulated Party Unless Specified Conditions Are Met.* Except as provided for in section 95484(a)(2)(B)3., when a person who is the regulated party for diesel fuel or a diesel fuel blend transfers ownership to a producer or importer before it has been transferred from its final distribution facility, the recipient of ownership of the diesel fuel or diesel fuel blend (i.e., the transferee) becomes the regulated party for it. The transferor must provide the recipient a product transfer document that prominently states the information specified in paragraphs a. and b. below, and the transferor and recipient must meet the requirements specified in paragraph c., as set forth below:

a. the volume and average carbon intensity of the transferred diesel fuel or diesel fuel blend. For a transferor that is a regulated party subject to section 95486(b)(2)(A)2., the transferor of diesel fuel or diesel fuel blend may report as the "average carbon intensity" on the product transfer document the total carbon intensity value for "diesel" (ULSD) as shown in the Carbon Intensity Lookup Table; and

b. the recipient is now the regulated party for the acquired diesel fuel or diesel fuel blend and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to it.

c. For purposes of section 95485(a), except as provided in paragraph c.iii. of this provision:

i. the transferor under a. above must include the $Deficits^{XD}_{Incremental}$, as defined and set forth in section 95486(b)(2)(A)2.a., in the transferor's annual credits and deficits balance calculation set forth in section 95485(a)(2); and

ii. the recipient under b. above must include $Deficits^{XD}_{Base}$, as defined and set forth in section 95486(b)(2)(A)2.a., in the recipient's annual credits and deficits balance calculation set forth in section 95485(a)(2).

iii. Paragraphs c.i and c.ii. above notwithstanding, the transferor and recipient of diesel fuel or diesel fuel blend may, by the time the ownership is transferred, specify by written contract which party is responsible for accounting for the base deficit and incremental deficit in the annual credits and deficits balance calculation set forth in section 95485(a)(2).

3. *Transfer of Diesel Fuel or Diesel Fuel Blend to a Producer or Importer and Retaining Compliance Obligation.* Section 95484(a)(2)(B)2. notwithstanding, a regulated party transferring ownership of diesel fuel or diesel fuel blend to a producer or importer may elect to remain the regulated party and retain the LCFS compliance obligation for the transferred diesel fuel or diesel fuel blend by providing the recipient at the time of transfer with a product transfer document that prominently states that the transferor has elected to remain the regulated party with respect to the diesel fuel or diesel fuel blend.

4. *If Recipient Is Not a Producer or Importer, Regulated Party Transferring Diesel Fuel or Diesel Fuel Blend Remains Regulated Party Unless Specified Conditions Are Met.*

When a person who is the regulated party for diesel fuel or a diesel fuel blend transfers ownership of the diesel fuel or diesel fuel blend to a person who is not a producer or importer, the transferor remains the regulated party unless the conditions of section 95484(a)(2)(B)5. are met.

5. *Conditions Under Which a Non-Producer and Non-Importer Acquiring Ownership of Diesel Fuel or Diesel Fuel Blend Becomes the Regulated Party.* A person, who is neither a producer nor an importer and who acquires ownership of diesel fuel or a diesel fuel blend from the regulated party, becomes the regulated party for the diesel fuel or diesel fuel blend if, by the time ownership is transferred, the two parties agree by written contract that the person acquiring ownership accepts the LCFS compliance obligation as the regulated party. For the transfer of regulated party obligations to be effective, the transferor must also provide the recipient a product transfer document that prominently states the information specified in paragraphs a. and b. below, and the transferor and recipient must meet the requirements specified in paragraph c., as set forth below:

   a. the volume and average carbon intensity of the transferred diesel fuel or diesel fuel blend. For a transferor that is a regulated party subject to section 95486(b)(2)(A)2., the transferor of diesel fuel or diesel fuel blend may report as the "average carbon intensity" on the product transfer document the total carbon intensity value for "diesel" (ULSD) as shown in the Carbon Intensity Lookup Table; and

   b. the recipient is now the regulated party for the acquired diesel fuel or diesel fuel blend and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to the diesel fuel or diesel fuel blend.

   c. For purposes of section 95485(a), except as provided in paragraph c.iii. of this provision:

      i. the transferor under a. above must include the $Deficits^{XD}_{Incremental}$, as defined and set forth in section 95486(b)(2)(A)2.a., in the transferor's annual credits and deficits balance calculation set forth in section 95485(a)(2); and

ii. the recipient under b. above must include $Deficits^{XD}_{Base}$, as defined and set forth in section 95486(b)(2)(A)2.a., in the recipient's annual credits and deficits balance calculation set forth in section 95485(a)(2).

iii. Paragraphs c.i and c.ii. above notwithstanding, the transferor and recipient of diesel fuel or diesel fuel blend may, by the time the ownership is transferred, specify by written contract which party is responsible for accounting for the base deficit and incremental deficit in the annual credits and deficits balance calculation set forth in section 95485(a)(2).

(C) *Effect of Transfer By Regulated Party of Biomass-Based Diesel to Be Blended With Diesel Fuel.*

1. *Person Acquiring the Biomass-Based Diesel Becomes the Regulated Party Unless Specified Conditions Are Met.*

Except as provided in section 95484(a)(2)(C)2., when a person who is the regulated party for biomass-based diesel to be blended with diesel fuel transfers ownership of the biomass-based diesel before it has been blended with diesel fuel, the recipient of ownership of the biomass-based diesel (i.e., the transferee) becomes the regulated party for it. The transferor must provide the recipient a product transfer document that prominently states:

a. the volume and carbon intensity of the transferred biomass-based diesel; and

b. the recipient is now the regulated party for the acquired biomass-based diesel and accordingly is responsible for meeting the requirements of the LCFS with respect to the biomass-based diesel.

2. *Transfer of Biomass-Based Diesel and Retaining Compliance Obligation.*

Section 95484(a)(2)(C)1. notwithstanding, the transferor may elect to remain the regulated party and retain the LCFS compliance obligation for the transferred biomass-based diesel by providing the recipient at the time of transfer with a product transfer document that prominently states that the

transferor has elected to remain the regulated party with respect to the biomass-based diesel.

(3) *Regulated Party For Liquid Alternative Fuels Not Blended With Gasoline Or Diesel Fuel.* For a liquid alternative fuel, including but not limited to neat denatured ethanol and neat biomass-based diesel, that is not blended with gasoline or diesel fuel, or with any other petroleum-derived fuel, the regulated party is the producer or importer of the liquid alternative fuel.

(4) *Regulated Party For Blends Of Liquid Alternative Fuels And Gasoline Or Diesel Fuel.*

(A) *Designation of producers and importers as regulated parties.* For a transportation fuel that is a blend of liquid alternative fuel and gasoline or diesel fuel – but that does not itself constitute gasoline or diesel fuel – the regulated party is the following:

(1) With respect to the alternative fuel component, the regulated party is the person who produced the liquid alternative fuel in California or imported it into California; and

(2) With respect to the gasoline or diesel fuel component, the regulated party is the person who produced the gasoline or diesel fuel in California or imported it into California.

(B) *Transfer Of A Blend Of Liquid Alternative Fuel And Gasoline Or Diesel Fuel And Compliance Obligation.* Except as provided for in section 95484(a)(4)(C), on each occasion that a person transfers ownership of fuel that falls within section 95484(a)(4) ("alternative liquid fuel blend") before it has been transferred from its final distribution facility, the recipient of ownership of such an alternative liquid fuel blend (i.e., the transferee) becomes the regulated party for that alternative liquid fuel blend. The transferor shall provide the recipient a product transfer document that prominently states:

1. the volume and average carbon intensity of the transferred alternative liquid fuel blend; and

2. the recipient is now the regulated party for the acquired alternative liquid fuel blend and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to the alternative liquid fuel blend.

(C) *Transfer Of A Blend Of Liquid Alternative Fuel And Gasoline Or Diesel Fuel And Retaining Compliance Obligation.* Section 95484(a)(4)(B) notwithstanding, the transferor may elect to remain

the regulated party and retain the LCFS compliance obligation for the transferred alternative liquid fuel blend by written contract with the recipient. The transferor shall provide the recipient with a product transfer document that identifies the volume and average carbon intensity of the transferred alternative liquid fuel blend.

(5) *Regulated Parties for Natural Gas (Including CNG, LNG, and Biogas).*

(A) *Designation of Regulated Parties for Fossil CNG and Biogas CNG.*

1. *Where Biogas CNG is Added to Fossil CNG.*

For fuel consisting of a fossil CNG and biogas CNG blend, the regulated party is initially the following:

a. With respect to the fossil CNG, the regulated party is the person that owns the natural gas fueling equipment at the facility at which the fossil CNG and biogas CNG blend is dispensed to motor vehicles for their transportation use; and

b. With respect to the biogas CNG, the regulated party is the producer or importer of the biogas CNG.

2. *Where No Biogas CNG is Added to Fossil CNG.* For fuel consisting solely of fossil CNG, the regulated party is the person that owns the natural gas fueling equipment at the facility at which the fossil CNG is dispensed to motor vehicles for their transportation use.

(B) *Designation of Regulated Parties for Fossil LNG and Biogas LNG.*

1. *Where Biogas LNG is Added to Fossil LNG.*

For a fuel consisting of a fossil LNG and biogas LNG blend, the regulated party is initially the following:

a. With respect to the fossil LNG, the regulated party is the person that owns the fossil LNG when it is transferred to the facility at which the liquefied blend is dispensed to motor vehicles for their transportation use; and

b. With respect to the biogas, the regulated party is the producer or importer of the biogas LNG.

2. *Where No Biogas LNG Is Added to Fossil LNG.* For fuel consisting solely of fossil LNG, the regulated party is initially the person that owns the fossil LNG when it is transferred to the facility at which the fossil LNG is dispensed to motor vehicles for their transportation use.

(C) *Designation of Regulated Party for Biogas CNG or Biogas LNG Supplied Directly to Vehicles for Transportation Use.* For fuel consisting solely of biogas CNG or biogas LNG that is produced in California and supplied directly to vehicles in California for their transportation use without first being blended into fossil CNG or fossil LNG, the regulated party is initially the producer of the biogas CNG or biogas LNG.

(D) *Effect of Transfer of Fuel by Regulated Party.*

1. *Transferor Remains Regulated Party Unless Conditions Are Met.*

When a person who is the regulated party for a fuel specified in section 95484(a)(5)(A), (B), or (C) transfers ownership of the fuel, the transferor remains the regulated party unless the conditions of section 95484(a)(5)(D)2. are met.

2. *Conditions Under Which a Person Acquiring Ownership of a Fuel Becomes the Regulated Party.* Section 95484(a)(5)(D)1. notwithstanding, a person acquiring ownership of a fuel specified in section 95484(a)(5)(A), (B), or (C) from the regulated party becomes the regulated party for that fuel if, by the time ownership is transferred, the two parties agree by written contract that the person acquiring ownership accepts the LCFS compliance obligation as the regulated party. For the transfer of regulated party obligations to be effective, the transferor must also provide the recipient a product transfer document that prominently states:

a. the volume and average carbon intensity of the transferred fuel; and

b. the recipient is now the regulated party for the acquired fuel and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to the acquired fuel.

(6) *Regulated Parties for Electricity.* For electricity used as a transportation fuel, the regulated party is determined in the order specified below:

(A) The load-serving entity or other provider of electricity services, unless section 95484(a)(6)(B), (C), or (D) below applies. "Load-serving entity" has the same meaning specified in Public Utilities Code (PUC) section 380. "Provider of electricity services" means a local publicly-owned utility, retail seller (as defined in PUC section 399.12(g)), or any other person that supplies electricity to the vehicle charging equipment;

(B) The electricity services supplier, where "electricity services supplier" means any person or entity that provides bundled charging infrastructure and other electric transportation services and provides access to vehicle charging under contract with the vehicle owner or operator;

(C) The owner and operator of the electric-charging equipment, provided there is a contract between the charging equipment owner-operator and the provider of electricity services specifying that the charging equipment owner-operator is the regulated party;

(D) The owner of a home with electric vehicle-charging equipment, provided there is a contract between the homeowner and provider of electricity services specifying that the homeowner may acquire credits.

(7) *Regulated Parties for Hydrogen Or A Hydrogen Blend.*

(A) *Designation of Regulated Party at Time Finished Fuel Is Created.*

For a volume of finished fuel consisting of hydrogen or a blend of hydrogen and another fuel ("finished hydrogen fuel"), the regulated party is initially the person who owns the finished hydrogen fuel at the time the blendstocks are blended to make the finished hydrogen fuel.

(B) *Transfer of Ownership and Retaining Compliance Obligation.* Except as provided for in section 95484(a)(7)(C), when a person who is the regulated party transfers ownership of a finished hydrogen fuel to another person, the transferor remains the regulated party.

(C) *Conditions Under Which a Person Acquiring Ownership of Finished Hydrogen Fuel Becomes the Regulated Party.* Section 95484(a)(7)(B) notwithstanding, a person who acquires ownership

of finished hydrogen fuel becomes the regulated party for the fuel if, by the time ownership is transferred, the two parties (transferor and recipient) agree by written contract that the person acquiring ownership accepts the LCFS compliance obligation as the regulated party. For the transfer of regulated party obligations to be effective, the transferor must also provide the recipient a product transfer document that prominently states:

1. the volume and average carbon intensity of the transferred finished hydrogen fuel; and

2. the recipient is now the regulated party for the acquired finished hydrogen fuel and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to the acquired finished hydrogen fuel.

(b) *Calculation of Credit Balance.*

(1) *Compliance Period.* Beginning in 2011 and every year thereafter, the compliance period is January 1 through December 31 of each year.

(2) *Calculation of Credit Balance at the End of A Compliance Period.* A regulated party must calculate the credit balance at the end of a compliance period as follows:

$$CreditBalance = Credits^{Gen} + Credits^{CarriedOver} + Credits^{Acquired} + Deficits^{Gen} - Credits^{Sold} - Credits^{Exported} - Credits^{Retired}$$

where:

$Credits^{Gen}$ is the total credits generated pursuant to section 95485(a) for the current compliance period;

$Credits^{CarriedOver}$ is the credits or deficits carried over from the previous compliance period;

$Credits^{Acquired}$ is the credits purchased or otherwise acquired in the current compliance period;

$Deficits^{Gen}$ is the total deficits generated pursuant to section 95485(a) for the current compliance period;

$Credits^{Sold}$ is the credits sold or otherwise transferred in the current compliance period;

$Credits^{Exported}$ is the credits exported to programs outside the LCFS for the current compliance period; and

$Credits^{Retired}$ is the credits retired within the LCFS for the current compliance period.

(3) *Deficit Carryover.* A regulated party with a negative credit balance in a compliance period may carry over the deficit to the next compliance period, without penalty, if both the following conditions are met:

(A) the regulated party has a credit balance greater than or equal to zero in the previous compliance period; and

(B) the sum of the magnitude of $Credits^{Gen}$, $Credits^{CarriedOver}$, and $Credits^{Acquired}$ is greater than or equal to 90 percent of the sum of the magnitude of $Deficits^{Gen}$, $Credits^{Sold}$, $Credits^{Exported}$, $Credits^{Retired}$ and for the current compliance period.

(4) *Deficit Reconciliation.*

(A) A regulated party that meets the conditions of deficit carryover, as specified in section 95481(b)(3), must eliminate any deficit generated in a given compliance period by the end of the next compliance period. A deficit may be eliminated only by retirement of an equal amount of retained credits ($Credits^{CarriedOver}$), by purchase of an equal amount of credits from another regulated party, or by any combination of these two methods.

(B) If the conditions of deficit carryover as specified in section 95481(b)(3) are not met, a regulated party must eliminate any deficit generated in a given compliance period by the end of the next compliance period. A deficit may be eliminated only by retirement of an equal amount of retained credits ($Credits^{CarriedOver}$), by purchase of an equal amount of credits from another regulated party, or by any combination of these two methods. In addition, the regulated party is subject to penalties to the extent permitted under State law.

(C) A regulated party that is reconciling in the current compliance period a deficit from the previous compliance period under (A) or (B) above remains responsible for meeting the LCFS regulation requirements during the current compliance period.

(c) *Reporting Requirements.*

(1) *Reporting Frequency.* A regulated party must submit to the Executive Officer quarterly progress reports and annual compliance reports, as specified in sections 95484(c)(3) and 95484(c)(4). The reporting frequencies for these reports are set forth below:

(A) *Quarterly Progress Reports For All Regulated Parties.* Beginning 2010 and each year thereafter, a regulated party must submit quarterly progress reports to the Executive Officer by:

1. May 31st – for the first calendar quarter covering January through March;

2. August 31st – for the second calendar quarter covering April through June;

3. November 30th – for the third calendar quarter covering July through September; and

4. February 28th (29th in a leap year) – for the fourth calendar quarter covering October through December.

(B) *Annual Compliance Reports.* By April 30th of 2011, a regulated party must submit an annual report for calendar year 2010. By April 30th of 2012 and each year thereafter, a regulated party must provide an annual compliance report for the prior calendar year.

(2) *How To Report.* A regulated party must submit an annual compliance and quarterly progress report by using an interactive, secured internet web-based form.

The regulated party is solely responsible for ensuring that the Executive Officer receives its progress and compliance reports by the dates specified in section 95484(c)(1). The Executive Officer shall not be responsible for failure of electronically submitted reports to be transmitted to the Executive Officer. The report must contain a statement attesting to the report's accuracy and validity. The Executive Officer shall not deem an electronically submitted report to be valid unless the report is accompanied by a digital signature that meets the requirements of title 2, California Code of Regulations, section 22000 et seq.

(3) *General and Specific Reporting Requirements for Quarterly Progress Reports.* For each of its transportation fuels, a regulated party must submit a quarterly progress report that contains the information specified in Table 3 and meets the additional specific requirements set forth below:

(A) *Specific Quarterly Reporting Requirements (Except As Otherwise Noted) for Gasoline and Diesel Fuel.*

1. For each transfer of gasoline or diesel fuel that results in a transfer of the compliance obligation or retention of the compliance obligation by written contract, the regulated party must provide to the Executive Officer, within 10 business days of a request, the product transfer document containing the information identified in section 95484(a)(1)(B), (a)(1)(C), (a)(1)(D), (a)(2)(B), (a)(2)(C), (a)(4)(B), (a)(4)(C), (a)(5)(D), or (a)(7)(C), whichever applies.

2. The carbon intensity value of each blendstock determined pursuant to section 95486.

3. The volume of each blendstock (in gal) per compliance period. For purposes of this provision only, the regulated party may report the total volume of each blendstock aggregated for each distinct carbon intensity value (e.g., X gallons of blendstock with A gCO2e/MJ, Y gallons of blendstock with B gCO2e/MJ, etc.). Further, if the regulated party is subject to section 95486(b)(2)(A)2. for fuel or blendstock derived from high carbon-intensity crude oil (HCICO), regulated party must report the E_{HCICO}^{XD} per compliance period, where E_{HCICO}^{XD} is defined in section 95486(b)(2)(A)2.a.

4. All Renewable Identification Numbers (RINs) that are retired for facilities in California.

(B) *Specific Quarterly Reporting Requirements for Natural Gas (including CNG, LNG, and Biogas).* For each private access, public access, or home fueling facility to which the regulated party supplies CNG, LNG or biogas as a transportation fuel:

1. For CNG, the regulated party must report the amount of fuel dispensed (in scf) per compliance period for all light/medium-duty vehicles (LDV & MDV) and heavy-duty vehicles (HDV). For LNG, the regulated party must report the amount of fuel dispensed (in gal) per compliance period for all LDV & MDV and HDV;

2. Except as provided for in section 95484(c)(3)(B)3., the regulated party must report the amount of fuel dispensed

based on the use of separate fuel dispenser meters at each fuel dispenser;

3. In lieu of using separate meters at each fuel dispenser, the regulated party may report the amount of fuel dispensed at each facility using any other method that the regulated party demonstrates to the Executive Officer's satisfaction as being equivalent to or better than the use of separate fuel meters at each fuel dispenser in each fueling facility;

4. The carbon intensity value of the CNG, LNG, or biogas determined pursuant to section 95486.

(C) *Specific Quarterly Reporting Requirements for Electricity*. For electricity used as a transportation fuel, a regulated party must also submit the following:

1. For residential charging stations, the total electricity dispensed (in kWh) to all vehicles at each residence based on direct metering, which distinguishes electricity delivered for transportation use. Before January 1, 2015, "based on direct metering" means either:

   a. the use of direct metering (also called submetering) to measure the electricity directly dispensed to all vehicles at each residential charging station; or

   b. for households and residences only where direct metering has not been installed, the regulated party may report the total electricity dispensed at each residential charging station using another method that the regulated party demonstrates to the Executive Officer's satisfaction is substantially similar to the use of direct metering under section (c)(3)(C)1.a..

   Effective January 1, 2015, "based on direct metering" means only the use of direct metering as specified in section (c)(3)(C)1.a. above;

2. For each public access charging facility, the amount of electricity dispensed (in kW-hr);

3. For each fleet charging facility, the amount of fuel dispensed (in kW-hr).

4. The carbon intensity value of the electricity determined pursuant to section 95486.

(D) *Specific Quarterly Reporting Requirements for Hydrogen or a Hydrogen Blend.* For hydrogen or a hydrogen blend used as a transportation fuel, a regulated party must also submit the following:

1. For each private access fueling facility, the amount of fuel dispensed (in kg) by vehicle weight category: LDV & MDV and HDV.

2. For each public access filling station, the amount of fuel dispensed (in kg) by vehicle weight category: LDV & MDV and HDV.

3. The carbon intensity value of the hydrogen or the blendstocks used to produce the hydrogen blend determined pursuant to section 95486.

(4) *General and Specific Reporting Requirements for Annual Compliance Reports.* A regulated party must submit an annual compliance report that meets, at minimum, the general and specific requirements specified in section 95484(c)(3) above and the additional requirements set forth below:

(A) A regulated party must report the following:

1. The total credits and deficits generated by the regulated party in the current compliance period, calculated as per equations in section 95485(a);

2. Any credits carried over from the previous compliance period;

3. Any deficits carried over from the previous compliance period;

4. The total credits acquired from another party and identify the party from whom the credits were acquired;

5. The total credits sold or otherwise transferred and identify each party to whom those credits were transferred;

6. The total credits retired within the LCFS; and

7. The total credits exported to programs outside the LCFS.

(5) *Significant Figures.* The regulated party must report the following quantities as specified below:

(A) carbon intensity, expressed to the same number of significant figures as shown in the carbon intensity lookup table (Method 1);

(B) credits, expressed to the nearest whole metric ton CO2 equivalent;

(C) fuel volume, expressed as follows:

1. a fuel volume greater than 1 million gasoline gallon equivalent (gge) must be expressed to the nearest 10,000 gge;

2. a fuel volume between 100,000 gge and 1 million gge, inclusive, must be expressed to the nearest 1,000 gge;

3. a fuel volume between 10,000 gge and 99,999 gge, inclusive, must be expressed to the nearest 100 gge; and

4. a fuel volume less than 9,999 gge must be expressed to the nearest 10 gge.

(D) any other quantity not specified in section 95484(c)(5)(A) to 95484(c)(5)(C) must be expressed to the nearest whole unit applicable for that quantity.

(E) *Rounding Intermediate Calculated Values.* A regulated party must use one of the following procedures for rounding intermediate calculated values for fuel quantity dispensed, blended, or sold in California; calculated carbon intensity values; calculated LCFS credits and deficits; and any other calculated or measured quantity required to be used, recorded, maintained, provided, or reported for the purpose determining a reported value under the LCFS regulation (17 CCR section 95480 et seq.):

1. ASTM E 29-08 (October 1, 2008), *Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications*, which is incorporated herein by reference; or

2. Any other practice that the regulated party has demonstrated to the Executive Officer's written satisfaction provides equivalent or better results as compared with the method specified in subsection 95484(c)(5)(E)1. above.

Table 3. Summary Checklist of Quarterly and Annual Reporting Requirements for LCFS Transportation Fuels.

Parameters to Report	Gasoline & Diesel fuel	CNG & LNG	Electricity	Hydrogen Or Hydrogen Blends	Neat Ethanol or Biomass-Based Diesel Fuels
Company or organization name	x	x	x	x	x
Reporting period	x	x	x	x	x
Type of fuel	x	x	x	x	x
Blended fuel (yes/no)	x	x	x	x	x
If yes, number of blendstocks	x	x	n/a	x	x
Type(s) of blendstock	x	x	n/a	x	x
RIN numbers	x	n/a	n/a	n/a	x
Blendstock feedstock	x	x	n/a	x	x
Feedstock origin	x	x	n/a	x	x
Production process	x	x	x	x	x
Amount of each blendstock (MJ)	x	x	n/a	x	x
**The CI of the fuel or blendstock (CI)*	x	x	x	x	x
Amount of each fuel used as gasoline replacement (MJ)	x	x	x	x	x
Amount of each fuel used as diesel fuel replacement (MJ)	x	x	x	x	x
**Credits/deficits generated per quarter (MT)	x	x	x	x	x
For Annual Reporting (in addition to the items above)					
**Credits and Deficits generated per year (MT)	x	x	x	x	x
**Credits/deficits carried over from the previous year (MT), if any	x	x	x	x	x
**Credits acquired from another party (MT), if any	x	x	x	x	x
**Credits sold to another party (MT), if any	x	x	x	x	x
**Credits exported to another program (MT), if any	x	x	x	x	x
**Credits retired within LCFS (MT), if any	x	x	x	x	x

** Optional. However if qualifying the CI value of electricity, under method 2A, that is different from CA Marginal electricity value, production process must be reported. **Value will be calculated or stored in the compliance tool.*

(d) *Recordkeeping and Auditing.*

(1) A regulated party must retain all of the following records for at least 3 years and must provide such records within 20 days of a written request received from the Executive Officer or his/her designee before expiration of the period during which the records are required to be retained:

(A) product transfer documents;

(B) copies of all data and reports submitted to the Executive Officer;

(C) records related to each fuel transaction; and

(D) records used for compliance or credit calculations.

(2) *Evidence of Physical Pathway.* A regulated party may not generate credits pursuant to section 95485 unless it has demonstrated or provided a demonstration to the Executive Officer that a physical pathway exists, for each of the transportation fuels and blendstocks for which it is responsible under the LCFS regulation, and that each physical pathway has been approved by the Executive Officer pursuant to this section 95484(d)(2). For purposes of this provision, "demonstrated" and "demonstration" includes any combination of either (i) a showing by the regulated party using its own documentation; or (ii) a showing by the regulated party that incorporates by reference documentation voluntarily submitted by another regulated party or a non-regulated party fuel producer, provided the documentation applies to and accurately represents the regulated party's transportation fuel or blendstock;

"Physical pathway" means the applicable combination of actual fuel delivery methods, such as truck routes, rail lines, gas/liquid pipelines, electricity transmission lines, and any other fuel distribution methods, through which the regulated party reasonably expects the fuel to be transported under contract from the entity that generated or produced the fuel, to any intermediate entities, and ending at the fuel blender, producer, importer, or provider in California.

The Executive Officer shall not approve a physical pathway demonstration unless the demonstration meets the following requirements:

(A) *Initial Demonstration of Delivery Methods.* The regulated party must provide an initial demonstration of the delivery methods comprising the physical pathway for each of the regulated party's fuels. The initial demonstration must include documentation in sufficient detail for the Executive Officer to verify the existence of the physical pathway's delivery methods.

The documentation must include a map(s) that shows the truck/rail lines or routes, pipelines, transmission lines, and other delivery methods (segments) that, together, comprise the physical pathway. If more than one company is involved in the delivery, each segment on the map must be linked to a specific company that is expected to transport the fuel through each segment of the physical pathway. The regulated party must provide the contact information for each such company, including the contact name, mailing address, phone number, and company name.

(B) *Initial Demonstration of Fuel Introduced Into the Physical Pathway.*

For each blendstock or alternative fuel for which LCFS credit is being claimed, the regulated party must provide evidence showing that a specific volume of that blendstock or fuel was introduced by its provider into the physical pathway identified in section 95484(d)(2)(A). The evidence may include, but is not limited to, a written purchase contract or transfer document for the volume of blendstock or alternative fuel that was introduced or otherwise delivered into the physical pathway.

(C) *Initial Demonstration of Fuel Removed From the Physical Pathway.* For each specific volume of blendstock or alternative fuel identified in section 95484(d)(2)(B), the regulated party must provide evidence showing that the same volume of blendstock or fuel was removed from the physical pathway in California by the regulated party and provided for transportation use in California. The evidence may include, but is not limited to, a written sales contract or transfer document for the volume of blendstock or alternative fuel that was removed from or otherwise extracted out of the physical pathway in California.

(D) *Subsequent Demonstration of Physical Pathway.* Once the Executive Officer has approved the initial demonstrations specified in section 95484(d)(2)(A) through (C), the regulated party does not need to resubmit the demonstrations for Executive Officer approval in any subsequent year, unless there is a material change to any of the information submitted under section 95484(d)(2)(A) through (C).

"Material change" means any change to the initially submitted information involving a change in the basic mode of transport for the fuel. For example, if an approved pathway using rail transport is changed to add to or replace the rail with truck or ship transport, that change would be deemed a material change.

If there is a material change to an approved physical pathway, the regulated party must notify the Executive Officer in writing within 30 business days after the material change has occurred, and the approved physical pathway shall become invalid 30 business days after the material change has occurred. A regulated party that wishes to generate credits after an approved physical pathway has become invalid must submit for Executive Officer approval a new initial demonstrations, pursuant to section 95484(d)(2)(A) through (C), which includes the material change(s) to the physical pathway.

(E) *Submittal and Review of and Final Action on Submitted Demonstrations*

1. The regulated party may not receive credit for any fuel or blendstock until the Executive Officer has approved the regulated party's submitted physical-pathway demonstration pursuant to section 95484(d)(2)(A) through (C). Upon receiving Executive Officer approval of a physical pathway, the regulated party may claim LCFS credits based on that pathway that are calculated retroactive to the date when the regulated party's use of the pathway began but no earlier than January 1, 2011.

2. Within 15 business days of receipt of a physical pathway demonstration, the Executive Officer shall determine if the physical pathway demonstration is complete and notify the regulated party accordingly. If incomplete, the Executive Officer shall notify the regulated party and identify the information needed to complete the demonstrations identified in section 95484(d)(2)(A) through (C). Once the Executive Officer deems the demonstrations to be complete, the Executive Officer shall, within 15 business days, take final action to either approve or disapprove a physical pathway demonstration and notify the regulated party of the final action.

(3) *Data Verification.* All data and calculations submitted by a regulated party for demonstrating compliance or claiming credit are subject to verification by the Executive Officer or a third party approved by the Executive Officer.

(4) *Access To Facility And Data.* Pursuant to H&S section 41510, if necessary under the circumstances, after obtaining a warrant, the Executive Officer has the right of entry to any premises owned, operated, used, leased, or rented by an owner or operator of a facility in order to inspect and copy records relevant to the determination of compliance.

(5) The Executive Officer shall post on the ARB's website at http://www.arb.ca.gov/fuels/lcfs/lcfs.htm the names and contact information for each regulated party and non-regulated party fuel producer that has obtained Executive Officer approval of its physical pathway demonstration; the transportation fuels and blendstocks covered by such Executive Officer approval; and details of the approved physical pathways disclosed in accordance with 17 CCR §§ 91000 – 91022 and the California Public Records Act (Government Code section 6250 et seq.).

(e) *Violations and Penalties.*

(1) Pursuant to H&S section 38580 (part of the California Global Warming Solutions Act of 2006), any violation of the provisions of the LCFS regulation (title 17, CCR, § 95480 et seq.) may be enjoined pursuant to H&S section 41513, and the violation is subject to those penalties set forth in Article 3 (commencing with § 42400) of Chapter 4 of Part 4 of, and Chapter 1.5 (commencing with § 43025) of Part 5 of, Division 26.

(2) Pursuant to H&S section 38580, any violation of the provisions of the LCFS regulation shall be deemed to result in an emission of an air contaminant for the purposes of the penalty provisions of Article 3 (commencing with § 42400) of Chapter 4 of Part 4 of, and Chapter 1.5 (commencing with § 43025) of Part 5 of, Division 26.

(3) Any violation of the provisions of the LCFS regulation shall be subject to all other penalties and remedies permitted under State law.

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975).

Section 95485. LCFS Credits and Deficits

(a) *Calculation of Credits and Deficits Generated.* A regulated party must calculate the amount of credits and deficits generated in a compliance period for an LCFS fuel using the methods specified below in section 95485(a)(1) through (3). The total credits and deficits generated are used in determining the overall credit balance for a compliance period, pursuant to section 95484(b). All credits and deficits are denominated in units of metric tons (MT) of carbon dioxide equivalent.

(1) All LCFS fuel quantities used for credit calculation must be in energy units of megajoules (MJ).

Fuel quantities denominated in other units, such as those shown in Table 4, must be converted to MJ by multiplying by the corresponding energy density[1]:

Table 4. Energy Densities of LCFS Fuels and Blendstocks.

Fuel (units)	Energy Density
CARBOB (gal)	119.53 (MJ/gal)
CaRFG (gal)	115.68 (MJ/gal)
Diesel fuel (gal)	134.47 (MJ/gal)
CNG (scf)	0.93 (MJ/scf)
LNG (gal)	78.83 (MJ/gal)
Electricity (kWh)	3.60 (MJ/KWh)
Hydrogen (kg)	120.00 (MJ/kg)
Anhydrous Ethanol (gal)	80.53 (MJ/gal)
Neat Biomass-based diesel (gal)	126.13 (MJ/gal)

(2) The total credits and deficits generated by a regulated party in a compliance period must be calculated as follows:

$$Credits^{Gen}(MT) = \sum_{i}^{n} Credits_i^{gasoline} + \sum_{i}^{n} Credits_i^{diesel}$$

$$Deficits^{Gen}(MT) = \sum_{i}^{n} Deficits_i^{gasoline} + \sum_{i}^{n} Deficits_i^{diesel}$$

where:

[1] Energy density factors are based on the lower heating values of fuels in CA-GREET using BTU to MJ conversion of 1055 J/Btu.

$Credits^{Gen}$ represents the total credits (a zero or positive value), in units of metric tons ("MT"), for all fuels and blendstocks determined from the credits generated under either or both of the gasoline and diesel fuel average carbon intensity requirements;

$Deficits^{Gen}$ represents the total deficits (a negative value), in units of metric tons ("MT"), for all fuels and blendstocks determined from the deficits generated under either or both of the gasoline and diesel fuel average carbon intensity requirements;

I is the finished fuel or blendstock index; and

n is the total number of finished fuels and blendstocks provided by a regulated party in a compliance period.

(3) LCFS credits or deficits for each fuel or blendstock supplied by a regulated party must be calculated according to the following equations:

(A) $$Credits_i^{XD} / Deficits_i^{XD}(MT) = \left(CI_{standard}^{XD} - CI_{reported}^{XD}\right) \times E_{displaced}^{XD} \times C$$

where:

$Credits_i^{XD} / Deficits_i^{XD}$ *(MT)* is either the amount of LCFS credits generated (a zero or positive value), or deficits incurred (a negative value), in metric tons, by a fuel or blendstock under the average carbon intensity requirement for gasoline (*XD*="gasoline") or diesel (*XD*="diesel");

$CI_{standard}^{XD}$ is the average carbon intensity requirement of either gasoline (*XD*= "gasoline") or diesel fuel (*XD*= "diesel") for a given year as provided in section 95482 (b) and (c), respectively;

$CI_{reported}^{XD}$ is the adjusted carbon intensity value of a fuel or blendstock, in gCO2E/MJ, calculated pursuant to section 95485(a)(3)(B);

$E_{displaced}^{XD}$ is the total amount of gasoline (*XD*="gasoline") or diesel (*XD*="diesel") fuel energy displaced, in MJ, by the use of an alternative fuel, calculated pursuant to section 95485(a)(3)(C); and

C is a factor used to convert credits to units of metric tons from gCO2E and has the value of:

$$C = 1.0x10^{-6}\frac{(MT)}{(gCO_2E)}$$

(B) $$CI^{XD}_{raported} = \frac{CI_i}{EER^{XD}}$$

where:

CI_i is the carbon intensity of the fuel or blendstock, measured in gCO2E/MJ, determined by a California-modified GREET pathway or a custom pathway and incorporates a land use modifier (if applicable); and

EER^{XD} is the dimensionless Energy Economy Ratio (EER) relative to gasoline (*XD*="gasoline") or diesel fuel (*XD*= "diesel") as listed in Table 5. For a vehicle-fuel combination not listed in Table 5, EER^{XD} =1 must be used.

(C) $$E^{XD}_{displaced} = E_i \times EER^{XD}$$

where:

E_i is the energy of the fuel or blendstock, in MJ, determined from the energy density conversion factors in Table 4.

Table 5. EER Values for Fuels Used in Light- and Medium-Duty, and Heavy-Duty Applications.

Light/Medium-Duty Applications (Fuels used as gasoline replacement)		Heavy-Duty/Off-Road Applications (Fuels used as diesel replacement)	
Fuel/Vehicle Combination	**EER Values Relative to Gasoline**	**Fuel/Vehicle Combination**	**EER Values Relative to Diesel**
Gasoline (incl. E6 and E10) or E85 (and other ethanol blends)	1.0	Diesel fuel or Biomass-based diesel blends	1.0
CNG / ICEV	1.0	CNG or LNG	0.9
Electricity / BEV or PHEV	3.0	Electricity / BEV or PHEV	2.7
H2 / FCV	2.3	H2 / FCV	1.9

(BEV = battery electric vehicle, PHEV=plug-in hybrid electric vehicle, FCV = fuel cell vehicle, ICEV = internal combustion engine vehicle)

(b) *Credit Generation Frequency.* Beginning 2011 and every year afterwards, a regulated party may generate credits quarterly.

(c) *Credit Acquisition, Banking, Borrowing, and Trading.*

(1) A regulated party may:

(A) retain LCFS credits without expiration for use within the LCFS market;

(B) acquire or transfer LCFS credits. A third-party entity, which is not a regulated party or acting on behalf of a regulated party, may not purchase, sell, or trade LCFS credits, except as otherwise specified in (C) below; and

(C) export credits for compliance with other greenhouse gas reduction initiatives including, but not limited to, programs established pursuant to AB 32 (Nunez, Stats. 2006, ch. 488), subject to the authorities and requirements of those programs.

(2) A regulated party may not:

(A) use credits in the LCFS program that are generated outside the LCFS program, including, but not limited to, credits generated in other AB 32 programs.

(B) borrow or use credits from anticipated future carbon intensity reductions.

(C) generate LCFS credits from fuels exempted from the LCFS under section 95480.1(d) or are otherwise not one of the transportation fuels specified in section 95480.1(a).

(d) *Nature of Credits.* LCFS credits shall not constitute instruments, securities, or any other form of property.

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975).

Section 95486. Determination of Carbon Intensity Values

(a) *Selection of Method.*

(1) A regulated party for CARBOB, gasoline, or diesel fuel must use Method 1, as set forth in section 95486(b)(2)(A), to determine the carbon intensity of each fuel or blendstock for which it is responsible ("regulated party's fuel").

(2) A regulated party for any other fuel or blendstock must use Method 1, as set forth in section 95486(b)(2)(B), to determine the carbon intensity of each fuel for the regulated party's fuels, unless the regulated party is approved for using either Method 2A or Method 2B, as provided in section 95486(c) or (d).

(3) A regulated party's choice of carbon intensity value under Method 1 in either (a)(1) or (a)(2) above is subject in all cases to Executive Officer approval, as specified in this provision. If the Executive Officer has reason to believe that the regulated party's choice is not the value that most closely corresponds to its fuel or blendstock, the Executive Officer shall choose a carbon intensity value, in the Carbon Intensity Lookup Tables for the fuel or blendstock, which the Executive Officer determines is the one that most closely corresponds to the pathway for that fuel or blendstock. The Executive Officer shall provide the rationale for his/her determination to the regulated party in writing within 10 business days of the determination. The regulated party shall be responsible for reconciling any deficits, in accordance with section 95485, that were incurred as a result of its initial choice of carbon intensity values. In determining whether a carbon intensity value that is different than the one chosen by

the regulated party is more appropriate, the Executive Officer may consider any information submitted by the regulated party in support of its choice of carbon intensity value.

(b) *Method 1 – ARB Lookup Table.*

(1) To generate carbon intensity values, ARB uses the California-modified GREET (CA-GREET) model (version 1.8b, February 2009), which is incorporated herein by reference, and a land-use change (LUC) modifier (when applicable). The CA-GREET model is available for downloading on ARB's website at http://www.arb.ca.gov/fuels/lcfs/lcfs.htm.

The Carbon-Intensity Lookup Tables, shown below, specify the carbon intensity values for the enumerated fuel pathways that are described in the following supporting documents, all of which are incorporated herein by reference:

(A) Stationary Source Division, Air Resources Board (February 27, 2009, v.2.1), "Detailed California-Modified GREET Pathway for California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB) from Average Crude Refined in California;"

(B) Stationary Source Division, Air Resources Board (February 27, 2009, v.2.1), "Detailed California-Modified GREET Pathway for California Reformulated Gasoline (CaRFG);"

(C) Stationary Source Division, Air Resources Board (February 28, 2009, v.2.1), "Detailed California-Modified GREET Pathway for Ultra Low Sulfur Diesel (ULSD) from Average Crude Refined in California;"

(D) Stationary Source Division, Air Resources Board (February 27, 2009, v.2.1), "Detailed California-Modified GREET Pathway for Corn Ethanol;"

(E) Stationary Source Division, Air Resources Board (February 27, 2009, v.2.1), "Detailed California-Modified GREET Pathway for Brazilian Sugarcane Ethanol;"

(F) Stationary Source Division, Air Resources Board (February 28, 2009, v.2.1), "Detailed California-Modified GREET Pathway for Compressed Natural Gas (CNG) from North American Natural Gas;"

(G) Stationary Source Division, Air Resources Board (February 28, 2009, v.2.1), "Detailed California-Modified GREET Pathway for Compressed Natural Gas (CNG) from Landfill Gas;"

(H) Stationary Source Division, Air Resources Board (February 27, 2009, v.2.1), "Detailed California-Modified GREET Pathway for California Average and Marginal Electricity;"

(I) Stationary Source Division, Air Resources Board (February 27, 2009, v.2.1), "Detailed California-Modified GREET Pathway for Compressed Gaseous Hydrogen from North American Natural Gas;"

(J) Stationary Source Division, Air Resources Board (September 23, 2009, v.2.0), "Detailed California-Modified GREET Pathways for Liquefied Natural Gas (LNG) from North American and Remote Natural Gas Sources;"

(K) Stationary Source Division, Air Resources Board (September 23, 2009, v.2.0), "Detailed California-Modified GREET Pathway for Liquefied Natural Gas (LNG) from Landfill Gas (LFG);"

(L) Stationary Source Division, Air Resources Board (July 20, 2009, v.1.0), "Detailed California-Modified GREET Pathway for Compressed Natural Gas (CNG) from Dairy Digester Biogas;"

(M) Stationary Source Division, Air Resources Board (September 23, 2009, v.2.0), "Detailed California-Modified GREET Pathway for Liquefied Natural Gas (LNG) from Dairy Digester Biogas;"

(N) Stationary Source Division, Air Resources Board (September 23, 2009, v.2.0), "Detailed California-Modified GREET Pathway for Biodiesel from Used Cooking Oil;"

(O) Stationary Source Division, Air Resources Board (September 23, 2009, v.2.0), "Detailed California-Modified GREET Pathway for Co-Processed Renewable Diesel from Tallow (U.S. Sourced);" and

(P) Stationary Source Division, Air Resources Board (September 23, 2009, v.2.3), "Detailed California-Modified GREET Pathways for Brazilian Sugarcane Ethanol: Average Brazilian Ethanol, With Mechanized Harvesting and Electricity Co-product Credit, With Electricity Co-product Credit."

Table 6. Carbon Intensity Lookup Table for Gasoline and Fuels that Substitute for Gasoline.

Fuel	Pathway Description	Carbon Intensity Values (gCO_2e/MJ)		
		Direct Emissions	Land Use or Other Indirect Effect	Total
Gasoline	CARBOB – based on the average crude oil delivered to California refineries and average California refinery efficiencies	95.86	0	95.86
Ethanol from Corn	Midwest average; 80% Dry Mill; 20% Wet Mill; Dry DGS	69.40	30	99.40
	California average; 80% Midwest Average; 20% California; Dry Mill; Wet DGS; NG	65.66	30	95.66
	California; Dry Mill; Wet DGS; NG	50.70	30	80.70
	Midwest; Dry Mill; Dry DGS, NG	68.40	30	98.40
	Midwest; Wet Mill, 60% NG, 40% coal	75.10	30	105.10
	Midwest; Wet Mill, 100% NG	64.52	30	94.52
	Midwest; Wet Mill, 100% coal	90.99	30	120.99
	Midwest; Dry Mill; Wet, DGS	60.10	30	90.10
	California; Dry Mill; Dry DGS, NG	58.90	30	88.90
	Midwest; Dry Mill; Dry DGS; 80% NG; 20% Biomass	63.60	30	93.60
	Midwest; Dry Mill; Wet DGS; 80% NG; 20% Biomass	56.80	30	86.80
	California; Dry Mill; Dry DGS; 80% NG; 20% Biomass	54.20	30	84.20
	California; Dry Mill; Wet DGS; 80% NG; 20% Biomass	47.44	30	77.44
Ethanol from Sugarcane	Brazilian sugarcane using average production processes	27.40	46	73.40
	Brazilian sugarcane with average production process, mechanized harvesting and electricity co-product credit	12.40	46	58.40
	Brazilian sugarcane with average production process and electricity co-product credit	20.40	46	66.40
Compressed Natural Gas	California NG via pipeline; compressed in CA	67.70	0	67.70
	North American NG delivered via pipeline; compressed in CA	68.00	0	68.00
	Landfill gas (bio-methane) cleaned up to pipeline quality NG; compressed in CA	11.26	0	11.26
	Dairy Digester Biogas to CNG	13.45	0	13.45

Liquefied Natural Gas	North American NG delivered via pipeline; liquefied in CA using liquefaction with 80% efficiency	83.13	0	83.13
	North American NG delivered via pipeline; liquefied in CA using liquefaction with 90% efficiency	72.38	0	72.38
	Overseas-sourced LNG delivered as LNG to Baja; re-gasified then re-liquefied in CA using liquefaction with 80% efficiency	93.37	0	93.37
	Overseas-sourced LNG delivered as LNG to CA; re-gasified then re-liquefied in CA using liquefaction with 90% efficiency	82.62	0	82.62
	Overseas-sourced LNG delivered as LNG to CA; no re-gasification or re-liquefaction in CA	77.50	0	77.50
	Landfill Gas (bio-methane) to LNG liquefied in CA using liquefaction with 80% efficiency	26.31	0	26.31
	Landfill Gas (bio-methane) to LNG liquefied in CA using liquefaction with 90% efficiency	15.56	0	15.56
	Dairy Digester Biogas to LNG liquefied in CA using liquefaction with 80% efficiency	28.53	0	28.53
	Dairy Digester Biogas to LNG liquefied in CA using liquefaction with 90% efficiency	17.78	0	17.78
Electricity	California average electricity mix	124.10	0	124.10
	California marginal electricity mix of natural gas and renewable energy sources	104.71	0	104.71
Hydrogen	Compressed H_2 from central reforming of NG (includes liquefaction and re-gasification steps)	142.20	0	142.20
	Liquid H_2 from central reforming of NG	133.00	0	133.00
	Compressed H_2 from central reforming of NG (no liquefaction and re-gasification steps)	98.80	0	98.80
	Compressed H_2 from on-site reforming of NG	98.30	0	98.30
	Compressed H_2 from on-site reforming with renewable feedstocks	76.10	0	76.10

Table 7. Carbon Intensity Lookup Table for Diesel and Fuels that Substitute for Diesel.

Fuel	Pathway Description	Carbon Intensity Values (gCO_2e/MJ)		
		Direct Emissions	Land Use or Other Indirect Effect	Total
Diesel	ULSD – based on the average crude oil delivered to California refineries and average California refinery efficiencies	94.71	0	94.71
Biodiesel	Conversion of waste oils (Used Cooking Oil) to biodiesel (fatty acid methyl esters -FAME) where "cooking" is required	15.84	0	15.84
	Conversion of waste oils (Used Cooking Oil) to biodiesel (fatty acid methyl esters -FAME) where "cooking" is not required	11.76	0	11.76
Renewable Diesel	Conversion of tallow to renewable diesel using higher energy use for rendering	39.33	0	39.33
	Conversion of tallow to renewable diesel using lower energy use for rendering	19.65	0	19.65
Compressed Natural Gas	California NG via pipeline; compressed in CA	67.70	0	67.70
	North American NG delivered via pipeline; compressed in CA	68.00	0	68.00
	Landfill gas (bio-methane) cleaned up to pipeline quality NG; compressed in CA	11.26	0	11.26
	Dairy Digester Biogas to CNG	13.45	0	13.45
Liquefied Natural Gas	North American NG delivered via pipeline; liquefied in CA using liquefaction with 80% efficiency	83.13	0	83.13
	North American NG delivered via pipeline; liquefied in CA using liquefaction with 90% efficiency	72.38	0	72.38
	Overseas-sourced LNG delivered as LNG to Baja; re-gasified then re-liquefied in CA using liquefaction with 80% efficiency	93.37	0	93.37
	Overseas-sourced LNG delivered as LNG to CA; re-gasified then re-liquefied in CA using liquefaction with 90% efficiency	82.62	0	82.62
	Overseas-sourced LNG delivered as LNG to CA; no re-gasification or re-liquefaction in CA	77.50	0	77.50
	Landfill Gas (bio-methane) to LNG liquefied in CA using liquefaction with 80% efficiency	26.31	0	26.31
	Landfill Gas (bio-methane) to LNG liquefied in CA using liquefaction with 90% efficiency	15.56	0	15.56

	Dairy Digester Biogas to LNG liquefied in CA using liquefaction with 80% efficiency	28.53	0	28.53
	Dairy Digester Biogas to LNG liquefied in CA using liquefaction with 90% efficiency	17.78	0	17.78
Electricity	California average electricity mix	124.10	0	124.10
	California marginal electricity mix of natural gas and renewable energy sources	104.71	0	104. 71
Hydrogen	Compressed H_2 from central reforming of NG (includes liquefaction and re-gasification steps)	142.20	0	142.20
	Liquid H_2 from central reforming of NG	133.00	0	133.00
	Compressed H_2 from central reforming of NG (no liquefaction and re-gasification steps)	98.80	0	98.80
	Compressed H_2 from on-site reforming of NG	98.30	0	98.30
	Compressed H_2 from on-site reforming with renewable feedstocks	76.10	0	76.10

(2) *Use of Lookup-Table Carbon-Intensity Values.*

(A) *For CARBOB, Gasoline and Diesel Fuel.*

For purposes of this section 95486(b)(2)(A), "2006 California baseline crude mix" means the total pool of crude oil supplied to California refiners in 2006; "included in the 2006 California baseline crude mix" means the crude oil constituted at least 2.0% of the 2006 California baseline crude mix, by volume, as shown by California Energy Commission records for 2006; and "high carbon-intensity crude oil" means any crude oil that has a total production and transport carbon-intensity value greater than 15.00 grams CO2e/MJ.

The carbon intensity for a regulated party's CARBOB, gasoline or a diesel fuel is determined as specified in section 95486(b)(2)(A)1. or 2. below, whichever applies:

1. *For CARBOB, Gasoline or Diesel Fuel Derived from Crude Oil That Is Either Included in the 2006 California Baseline Crude Mix or Is Not a High Carbon Intensity Crude Oil.*

If all of a regulated party's CARBOB, gasoline or diesel fuel is derived from crude oil that is either:

a. included in the 2006 California baseline crude mix, or

b. not a high carbon-intensity crude oil,

the regulated party must use the average carbon intensity value shown in the Carbon Intensity Lookup Table for CARBOB, gasoline or diesel fuel.

2. *For All Other CARBOB, Gasoline or Diesel Fuel, Including Those Derived from High Carbon-Intensity Crude Oil (HCICO).*

Except as set forth in this provision, if any portion of a regulated party's CARBOB, gasoline, or diesel fuel does not fall within section 95486(b)(2)(A)1. above (including those derived from high carbon-intensity crude oil), the regulated party must calculate the deficits for CARBOB, gasoline, or diesel fuel, derived wholly or in part from crude oil subject to this provision, using the deficit calculation methodology and the process for determining the carbon intensity value described in paragraphs a. and b., respectively, below:

a. *Deficit Calculation When HCICO Is Used.*

i. *Calculation Methodology.* For purposes of this section, a regulated party for CARBOB, gasoline or diesel fuel, derived wholly or in part from HCICO feedstock, must calculate separately the base deficit and incremental deficit for each fuel or blendstock, as specified in this provision. The base deficit must be calculated for the entire volume of fuel or blendstock derived from the mix of HCICO and all other crude, and the incremental deficit must be calculated only for the volume of fuel or blendstock derived from the HCICO, as follows:

$$Deficits^{XD}_{Base_i}(MT) = (CI^{XD}_{Standard_i} - CI^{XD}_{Avg_i}) \times E^{XD}_{Total_i} \times C$$

and

$$Deficits^{XD}_{Incremental_i}(MT) = (CI^{XD}_{Avg_i} - CI^{XD}_{HCICO_i}) \times E^{XD}_{HCICO_i} \times C$$

where,

i is the finished fuel or blendstock index;

$Deficits^{XD}_{Base}$ *(MT)* means the amount of LCFS deficits incurred (a negative value), in metric tons, by the volume of gasoline, CARBOB, or diesel fuel that is derived from all petroleum feedstock, including HCICO, produced in or imported into California during a specific calendar year;

$Deficits^{XD}_{Incremental}$ *(MT)* means the amount of LCFS deficits incurred (a negative value), in metric tons, by the volume of a fuel or blendstock that is derived wholly from HCICO feedstock produced in or imported into California during a specific calendar year;

$CI^{XD}_{Standard}$ has the same meaning as specified in section 95485(a)(3)(A);

CI^{XD}_{Avg} is the adjusted average carbon-intensity value of a fuel or blendstock, in gCO2E/MJ, derived from all petroleum feedstock, including HCICO, produced in or imported into California during a specific calendar year, where the carbon intensity of the fuel or blendstock is adjusted by dividing it

with the EER as described in section 95485(a)(3)(B). For purposes of this provision, CI_{Avg}^{XD} for CARBOB (*XD* = "gasoline") and diesel fuel (*XD* = "diesel") is the total carbon intensity value for CARBOB and diesel (ULSD) set forth in the Carbon Intensity Lookup Table, respectively;

CI_{HCICO}^{XD} is the adjusted actual carbon-intensity value of a fuel or blendstock, in gCO2E/MJ, derived from HCICO feedstock produced in or imported into California during a specific calendar year, where the carbon intensity of the fuel or blendstock, as determined pursuant to paragraph ii. below, is adjusted by dividing it with the EER as described in section 95485(a)(3)(B);

E_{Total}^{XD} is the adjusted total amount of fuel energy, in MJ, from gasoline (*XD*="gasoline") or diesel (*XD*="diesel"), derived from all petroleum feedstock produced in or imported into California during a specific calendar year, where the total amount of fuel energy of the fuel is adjusted by multiplying it with the EER as described in section 95485(a)(3)(C). Where the petroleum feedstock is comprised entirely of HCICO, E_{Total}^{XD} equals E_{HCICO}^{XD};

E_{HCICO}^{XD} is the adjusted total amount of fuel energy, in MJ, from gasoline (*XD*="gasoline") or diesel (*XD*="diesel"), derived from HCICO feedstock produced in or imported into California during a specific calendar year, where the total amount of fuel energy of the fuel is adjusted by multiplying it with the EER as described in section 95485(a)(3)(C); and

C has the same meaning as specified in section 95485(a)(3)(A).

ii. *Determination of Carbon Intensity Value for HCICO-derived Products,* CI_{HCICO}^{XD}.

A regulated party subject to section 95486(b)(2)(A) must determine the carbon intensity value for its CARBOB, gasoline or diesel fuel using any of the following that applies, subject to Executive Officer approval as specified in section 95485(a)(2) or as otherwise specified.

I. The carbon intensity value shown in the Carbon Intensity Lookup Table corresponding to the HCICO's pathway; or

II. Except as provided in paragraph III. below, if there is no carbon intensity value shown in the Carbon Intensity Lookup Table corresponding to the HCICO's pathway, the regulated party must propose a new pathway for its HCICO and obtain approval from the Executive Officer for the resulting pathway's carbon intensity pursuant to Method 2B as set forth in section 95486(d) and (f); or

III. The regulated party may, upon written Executive Officer approval pursuant to section 95486(f), use the average carbon intensity value in the Carbon Intensity Lookup Table for CARBOB, gasoline or diesel fuel, provided the GHG emissions from the fuel's crude production and transport steps are subject to control measures, such as carbon capture-and-sequestration (CCS) or other methods, which reduce the crude oil's production and transport carbon-intensity value to 15.00 grams CO2e/MJ or less, as determined by the Executive Officer.

(B) *For All Other Fuels and Blendstocks.*

Except as provided in section 95486(c) and (d), for each of a regulated party's fuels, the regulated party must use the carbon intensity value in Lookup Table that most closely corresponds to the production process used to produce the regulated party's fuel. The Lookup Table carbon intensity value selected by the regulated party is subject to approval by the Executive Officer.

[Note: For example, if one of the regulated party's fuels is compressed natural gas (CNG) used in a light-duty vehicle, and the CNG is derived from dairy digester biogas, the regulated party would use the total carbon intensity value in Carbon Intensity Lookup Table 6 (i.e., the last column in Lookup Table 6) corresponding to the applicable Fuel (compressed natural gas) and Pathway Description (Dairy Digester Biogas to CNG). The result in this example would be a total carbon intensity value of 13.45 gC02e/MJ.]

(c) *Method 2A – Customized Lookup Table Values (Modified Method 1).*

Under Method 2A, the regulated party may propose, for the Executive Officer's written approval pursuant to section 95486(f), modifications to one or more inputs to the CA-GREET model used to generate the carbon intensity values in the Method 1 Lookup Table.

For any of its transportation fuels subject to the LCFS regulation, a regulated party may propose the use of Method 2A to determine the fuel's carbon intensity, as provided in this section 95486(c). For each fuel subject to a proposed Method 2A, the regulated party must obtain written approval from the Executive Officer for its proposed Method 2A before the regulated party may use Method 2A for determining the carbon intensity of the fuel. The Executive Officer's written approval may include more than one of a regulated party's fuels under Method 2A.

The Executive Officer may not approve a proposed Method 2A unless the regulated party and its proposed Method 2A meet the scientific defensibility, "5-10" substantiality, and data submittal requirements specified in section 95486(e)(1) through (3) and the following requirements:

(1) The proposed modified CA-GREET inputs must accurately reflect the conditions specific to the regulated party's production and distribution process;

(2) The proposed Method 2A uses only the inputs that are already incorporated in CA-GREET and does not add any new inputs (e.g., refinery efficiency); and

(3) The regulated party must request the Executive Officer to conduct an analysis or modeling to determine the new pathway's impact on total carbon intensity due to indirect effects, including land-use changes, as the Executive Officer deems appropriate. The Executive Officer will use the GTAP Model (February 2009), which is incorporated by reference, or other model determined by the Executive Officer to be at least equivalent to the GTAP Model (February 2009).

(d) *Method 2B – New Pathway Generated by California-Modified GREET (v.1.8b).* Under Method 2B, the regulated party proposes for the Executive Officer's written approval the generation of a new pathway using the CA-GREET as provided for in this provision. The Executive Officer's approval is subject to the requirements as specified in section 95486(f) and the following requirements:

(1) For purposes of this provision, "new pathway" means the proposed full fuel-cycle (well-to-wheel) pathway is not already in the ARB Lookup Table specified in section 95486(b)(1), as determined by the Executive Officer;

(2) The regulated party must demonstrate to the Executive Officer's satisfaction that the CA-GREET can be modified successfully to generate the proposed new pathway. If the Executive Officer determines that the CA-GREET model cannot successfully generate the proposed new pathway, the proponent-regulated party must use either Method 1 or Method 2A to determine its fuel's carbon intensity;

(3) The regulated party must identify all modified parameters for use in the CA-GREET for generating the new pathway;

(4) The CA-GREET inputs used to generate the new pathway must accurately reflect the conditions specific to the regulated party's production and marketing process; and

(5) The regulated party must request the Executive Officer to conduct an analysis or modeling to determine the new pathway's impact on total carbon intensity due to indirect effects, including land-use changes, as the Executive Officer deems appropriate. The Executive Officer will use the GTAP Model (February 2009), which is incorporated by reference, or other model determined by the Executive Officer to be at least equivalent to the GTAP Model (February 2009).

(e) *Scientific Defensibility, Burden of Proof, Substantiality, and Data Submittal Requirements and Procedure for Approval of Method 2A or 2B.* For a proposed Method 2A or 2B to be approved by the Executive Officer, the regulated party must demonstrate that the method is both scientifically defensible and, for Method 2A, meets the substantiality requirement, as specified below:

(1) *Scientific Defensibility and Burden of Proof.* This requirement applies to both Method 2A and 2B. A regulated party that proposes to use Method 2A or 2B bears the sole burden of demonstrating to the Executive Officer's satisfaction, that the proposed method is scientifically defensible.

(A) For purposes of this regulation, "scientifically defensible" means the method has been demonstrated to the Executive Officer as being at least as valid and robust as Method 1 for calculating the fuel's carbon intensity.

(B) Proof that a proposed method is scientifically defensible may rely on, but is not limited to, publication of the proposed Method 2A or 2B in a major, well-established and peer-reviewed scientific journal (e.g., Science, Nature, Journal of the Air and Waste Management Association, Proceedings of the National Academies of Science).

(2) *"5-10" Substantiality Requirement.* This requirement applies only to a proposed use of Method 2A, as provided in section 95486(c). For each of its transportation fuels for which a regulated party is proposing to use Method 2A, the regulated party must demonstrate, to the Executive Officer's satisfaction, that the proposed Method 2A meets both of the following substantiality requirements:

(A) The source-to-tank carbon intensity for the fuel under the proposed Method 2A is at least 5.00 grams CO2-eq/MJ less than the source-to-tank carbon intensity for the fuel as calculated under Method 1. "Source-to-tank" means all the steps involved in the growing/extraction, production and transport of the fuel to California, but it does not include the carbon intensity due to the vehicle's use of the fuel; "source-to-tank" may also be referred to as "well-to-tank" or "field-to-tank."

(B) The regulated party can and is expected to provide in California more than 10 million gasoline gallon equivalents per year (1,156 MJ) of the regulated fuel. This requirement applies to a transportation fuel only if the total amount of the fuel sold in California from all providers of that fuel exceeds 10 million gasoline gallon equivalents per year.

(3) *Data Submittal.* This requirement applies to both Method 2A and 2B. A regulated party proposing Method 2A or 2B for a fuel's carbon intensity value must meet all the following requirements:

(A) Submit to the Executive Officer all supporting data, calculations, and other documentation, including but not limited to, flow diagrams, flow rates, CA-GREET calculations, equipment description, maps, and other information that the Executive Officer determines is necessary to verify the proposed fuel pathway and how the carbon intensity value proposed for that pathway was derived;

(B) All relevant data, calculations, and other documentation in (A) above must be submitted electronically, such as via email or an online web-based interface, whenever possible;

(C) The regulated party must specifically identify all information submitted pursuant to this provision that is a trade secret; "trade secret" has the same meaning as defined in Government Code section 6254.7; and

(D) The regulated party must not convert spreadsheets in CA-GREET containing formulas into other file formats.

(f) *Approval Process.* To obtain Executive Officer approval of a proposed Method 2A or 2B, the regulated party must submit an application as follows:

(1) *General Information Requirements.*

(A) For a proposed use of Method 2A, the regulated party's application must contain all the information specified in section 95486(c), (e), and (f)(2);

(B) For a proposed use of Method 2B, the regulated party's application must contain all the information specified in section 95486(d), (e)(1), (e)(3), and (f)(2).

(2) *Use of Method 2A or 2B Prohibited Without Executive Officer Approval.* The regulated party must obtain the Executive Officer's written approval of its application submitted pursuant to section 95486(f)(1) above before using a proposed Method 2A or 2B for any purpose under the LCFS regulation. Any use of a proposed Method 2A or 2B before Executive Officer approval is granted shall constitute a violation of this regulation for each day that the violation occurs. A regulated party that submits any information or documentation in support of a proposed Method 2A or 2B must include a written statement clearly showing that the regulated party understands and agrees to the following:

(A) All information not identified in 95486(e)(3)(C) as trade secrets are subject to public disclosure pursuant to title 17, CCR, sections 91000-91022 and the California Public Records Act (Government Code § 6250 et seq.); and

(B) If the application is approved by the Executive Officer, the carbon intensity values, associated parameters, and other fuel pathway-related information obtained or derived from the application will be incorporated into the Method 1 Lookup Table for use on a free, unlimited license, and otherwise unrestricted basis by any person;

(3) *Completeness/Incompleteness Determination.* After receiving an application submitted under this section, the Executive Officer shall determine whether the application is complete within 15 work days. If the Executive Officer determines the application is incomplete, the Executive Officer shall notify the regulated party accordingly and identify the deficiencies in the application. The deadline set forth in this provision shall also apply to supplemental information submitted in response to an incompleteness determination by the Executive Officer.

(4) *Public Review.* After determining an application is complete, the Executive Officer shall publish the application and its details on ARB's website at http://www.arb.ca.gov/fuels/lcfs/lcfs.htm and make it available for a public-review process in accordance with applicable provisions of the Administrative Procedure Act (Government Code section 11340 et seq.). The Executive Officer shall treat all trade secrets specifically identified by the regulated party under section 95486(e)(3)(C) above in accordance with title 17, CCR, sections 91000-91022 and the California Public Records Act (Government Code § 6250 et seq.).

(5) *Final Action.* The Executive Officer shall take final action to approve or disapprove an application submitted pursuant to this subsection (f) in accordance with applicable provisions of the Administrative Procedure Act (Government Code section 11340 et seq.). The Executive Officer shall notify the regulated party accordingly and publish the final action on ARB's website at http://www.arb.ca.gov/fuels/lcfs/lcfs.htm. If the final action is approval of a new carbon intensity value and associated fuel pathway, the Executive Officer shall update the Lookup Table to reflect the new value accordingly pursuant to applicable provisions of the Administrative Procedure Act (Government Code section 11346 et seq.). If the Executive Officer disapproves an application, the disapproval shall identify the basis for the disapproval.

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975).

Section 95487. Requirements for Multimedia Evaluation

(a) *Pre-Sale Approval Requirement.* Except as provided for in section 95487(c), a regulated party must not sell, supply, distribute, import, offer for sale, or offer for use in California a regulated fuel unless one of the following conditions has first been met:

(1) a multimedia evaluation for the regulated fuel has been conducted pursuant to the requirements specified in this regulation, and that evaluation has been approved by the Executive Officer; or

(2) a multimedia evaluation for the regulated fuel has been conducted, and that evaluation was approved by the Executive Officer prior to the date the Office of Administrative Law (OAL) approves the LCFS regulation.

(b) *Requirements.*

(1) The Executive Officer, or his or her designee, shall not approve a multimedia evaluation subject to this section 95487(b) unless the evaluation has undergone the process for review and approval specified in H&S section 43830.8, including but not limited to, receiving peer review and approval by the California Environmental Policy Council pursuant to H&S section 43830.8(d)-(g). For purposes of H&S section 43830.8(a), each Executive Officer approval of a regulated fuel for compliance with the LCFS regulation under section 95487(a)(1) shall constitute compliance with the requirement in H&S section 43830.8(a) for conducting a multimedia evaluation prior to adoption of a "regulation that establishes a specification for motor vehicle fuel."

(2) All multimedia evaluations subject to this section 95487 shall be evaluated in accordance with the California Environmental Protection Agency (Cal/EPA) guidance document entitled, *Guidance Document and Recommendations on the Types of Scientific Information Submitted by Applicants for California Fuels Environmental Multimedia Evaluations (June 2008)*, which can be downloaded at http://www.arb.ca.gov/fuels/multimedia/080608guidance.pdf, and which is incorporated herein by reference.

(c) *Exemptions.*

(1) *Negative Declaration For ARB-Adopted New Or Amended Fuel Specifications.* The requirements of this section 95487 do not apply to a regulated fuel if:

(A) the regulated fuel is subject to a proposed ARB regulation establishing a new or amending an existing fuel specification, which ARB adopts after the date OAL approves the LCFS regulation; and

(B) the California Environmental Policy Council, following an initial evaluation of the proposed regulation, conclusively determines that the regulation will not have any significant adverse impact on public health or the environment.

(2) *CaRFG, Diesel Fuel, E100, E85, CNG, LNG, and Hydrogen.* The requirements of this section 95487 do not apply to a regulated fuel if:

(A) the fuel is subject to an ARB-adopted fuel specification; and

(B) the Executive Officer does not amend that fuel specification after OAL approves the LCFS regulation.

Fuels currently subject to this provision include CaRFG, diesel fuel, E100, E85, CNG, LNG, and hydrogen. This provision applies only to the extent that the Executive Officer does not amend the fuel specification for any of the above fuels. When OAL approves an ARB amendment to a fuel specification identified above, this provision shall no longer apply for that fuel.

(3) *Biomass-Based Diesel and Electricity.* The requirements of this section 95487 do not apply to a regulated fuel that:

(A) is subject to the Division of Measurement Standards' Engine Fuels Standards (title 4, CCR, § 4140 et seq.); but

(B) is not subject to an ARB-adopted fuel specification.

Fuels currently subject to this provision include biomass-based diesel, and electricity. This provision applies only to the extent that the Executive Officer does not adopt a fuel specification for any of the above fuels. When OAL approves an ARB-adopted fuel specification for a fuel identified above, this provision shall no longer apply for that fuel.

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975).

Section 95488. Cap and Trade

(a) [This section is reserved for future use]

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975).

Section 95489. Regulation Review

As provided in this section, the Executive Officer shall conduct two reviews of the implementation of the LCFS program. The first review shall be completed and presented to the Board by January 1, 2012; the second review shall be completed and presented to the Board by January 1, 2015.

(a) The scope of each review shall include, at a minimum, consideration of the following areas:

(1) The LCFS program's progress against LCFS targets;
(2) Adjustments to the compliance schedule, if needed;
(3) Advances in full, fuel-lifecycle assessments;
(4) Advances in fuels and production technologies, including the feasibility and cost-effectiveness of such advances;
(5) The availability and use of ultralow carbon fuels to achieve the LCFS standards and advisability of establishing additional mechanisms to incentivize higher volumes of these fuels to be used;
(6) An assessment of supply availabilities and the rates of commercialization of fuels and vehicles;
(7) The LCFS program's impact on the State's fuel supplies;
(8) The LCFS program's impact on state revenues, consumers, and economic growth;
(9) An analysis of the public health impacts of the LCFS at the state and local level, including the impacts of local infrastructure or fuel production facilities in place or under development to deliver low carbon fuels, using an ARB approved method of analysis developed in consultation with public health experts from academia and other government agencies;
(10) An assessment of the air quality impacts on California associated with the implementation of the LCFS; whether the use of the fuel in the State will affect progress towards achieving State or federal air quality standards, or results in any significant changes in toxic air contaminant emissions; and recommendations for mitigation to address adverse air quality impacts identified;
(11) Identification of hurdles or barriers (e.g., permitting issues, infrastructure adequacy, research funds) and recommendations for addressing such hurdles or barriers;
(12) Significant economic issues; fuel adequacy, reliability, and supply issues; and environmental issues that have arisen; and
(13) The advisability of harmonizing with international, federal, regional, and state LCFS and lifecycle assessments.

(b) The Executive Officer shall establish an LCFS advisory panel by July 1, 2010. Panel participants should include representatives of the California Energy Commission; the California Public Utilities Commission; fuel providers; storage and distribution infrastructure owner/operators; consumers; engine and vehicle manufacturers; environmental justice organizations; environmental groups; academia; public health; and other stakeholders and government agencies as deemed appropriate by the Executive Officer. The advisory panel shall participate in the reviews of the LCFS program required by this section, and the Executive Officer shall solicit comments and evaluations from the panel on the ARB staff's assessments of the areas and elements specified in section (a)

above, as well as on other topics relevant to the periodic reviews.

(c) The Executive Officer shall conduct the reviews specified above in a public process and shall conduct at least two public workshops for each review prior to presenting the reports to the Board. In presenting the results of each program review to the Board, the Executive Officer shall propose any amendments or such other action as the Executive Officer determines is warranted.

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975).

Section 95490. Enforcement Protocols

Notwithstanding section 95484(c) and (d), the Executive Officer may enter into an enforceable written protocol with any person to identify conditions under which the person may lawfully meet the recordkeeping, reporting, or demonstration of physical pathway requirements in section 95484(c) and (d). The Executive Officer may only enter into such a protocol if he or she reasonably determines that the provisions in the protocol are necessary under the circumstances and at least as effective as the applicable provisions specified in section 95484(c) and (d). Any such protocol shall include the person's agreement to be bound by the terms of the protocol.

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975).