CALIFORNIA NATURAL GAS VEHICLE COALITION

COMMENTS ON THE CALIFORNIA AIR RESOURCES BOARD'S

PROPOSED CONCEPT OUTLINE FOR THE CALIFORNIA

LOW CARBON FUEL STANDARD REGULATION

JUNE 2008

California Natural Gas Vehicle Coalition's Comments on the

California Air Resources Board's Proposed Concept Outline for the California Low Carbon Fuel Standard Regulation

The California Natural Gas Vehicle Coalition (CNGVC) thanks the California Air Resources Board (CARB) for the opportunity to comment on the Proposed Concept Outline for the California Low Carbon Fuel Standard Regulation (LCFS).

CNGVC supports most of the core elements in this outline and commends CARB on preparing a well conceived and well presented document. We do, however, wish to stress a fundamental point that underlies some of our recommended changes.

The LCFS should be used to both assure the 10% reduction in current carbon intensity of transportation fuels, and to incentivize low-carbon alternative fuel production. Indeed, the Governor's Executive Order S-01-07 establishing the Low Carbon fuel Standard focuses almost entirely on the state's near total dependence on petroleum-based fuels, the economic risks of such dependence, and the opportunities for alternative fuels to strengthen the state's economy and also reduce emissions of greenhouse gases and other air pollutants. CARB's growing realization of the difficulty in reducing the carbon content of gasoline through ethanol blending only strengthens the justification for promoting non-petroleum alternative fuels with an immediate and demonstrable low-carbon footprint, such as natural gas. If California's 2020 transportation fuel supply still relies overwhelmingly on gasoline and diesel fuels with simply a 10% lower carbon content, the state will not be well served and the LCFS will not be regarded as a success.

The CNGVC believes the LCFS will only enhance the appeal of natural gas as a transportation fuel. The April 22 GREET model reports identify an average fuel carbon intensity (AFCI) for natural gas of 67.9 gCO2e/MJ, considerably below either gasoline or diesel. The Department of Energy's well-to-wheels evaluation using the GREET model found that the GHG emissions from a 2006 natural gas Civic are 36% lower than the average light-duty vehicle with a 28 mpg fuel efficiency. These results will be further enhanced as more zero- or near-zero carbon biomethane enters the market.

Our comments on each of the outline's sections and responses to selected CARB *feedback requests* follow.

1. Applicability of the LCFS

CNGVC agrees with CARB's designation of gasoline (RFG) and diesel (ULSD) as "conventional fuels" and other liquid and non-liquid fuels, including natural gas, collectively as "alternative fuels." We believe the LCFS should be mandatorily applied only to gasoline, diesel, and those

alternative fuels determined not to meet the 10% AFCI reduction requirement. Alternative fuels that meet the 10% reduction requirement should be exempt from the LCFS and given the opportunity to "opt in" as a means of providing compliance alternatives for petroleum refiners and stimulating further investment in the alternative fuel market. If there is no market for LCFS credits, it makes little sense for alternative fuel providers to be subject to what may be costly and burdensome reporting and recordkeeping requirements of a market based program where they are unable to participate in an effective manner.

Feedback: CARB proposes that hydrogen be excluded from the LCFS at the outset, because of its very low production volumes. In relative terms all alternative fuels have very low production volumes compared to gasoline and diesel. Therefore if production volumes are a determinant of applicability of the regulation, all alternative fuels should be excluded from the rule. We recommend that hydrogen, like other alternative fuels, not be subject to the rule provided they have demonstrated compliance that exceeds reductions required by the linear compliance path, at which point obligated parties can "opt in" if desired.

2. Fuel Standards

Separate standards for gasoline and diesel: CNGVC supports CARB's decision to establish separate standards for gasoline and diesel. By doing so, production of low-carbon alternatives to these fuels will be stimulated rather than allowing one carbon-rich fuel to be substituted for another.

Linear compliance path: *Feedback: CNGVC supports the adoption of a default linear compliance path for both gasoline and diesel fuels, as proposed in Tables 2.1 and 2.2. The current availability of natural gas and the growing opportunity to incorporate biomethane into the transportation fuel supply demonstrate the availability of low and very-low carbon fuels in the 2010 to 2015 time frame. The proposal from refiners, in contrast, would maintain an almost flat compliance line until the very late years of the LCFS. Based on experience, we are concerned that such an approach would put the success of the LCFS at great risk by delaying steady progress toward the goal and inviting eleventh-hour pleas for relief from the requirement. A "long-step" pathway which will allow several years of status quo will not drive innovation where most needed and will impede the efforts of the low-carbon fuels industry to penetrate the market.*

AFCI standards for natural gas: CNGVC supports CARB's proposal on AFCI standards for natural gas. We note, however, that there is currently a good deal of confusion and uncertainty about anticipated AFCI numbers, both for conventional fuels and alternative fuels, based on different numbers published in the GREET model reports and other documents. The importance of getting these numbers correct is central to the success of the LCFS, because they will influence compliance paths chosen by obligated parties. In addition, it is important that the ARB establish AFCI numbers based on the fuel in use today. While the ARB and fuel industries should have the ability to calculate AFCI for fuels that might be available in the future, the AFCI for a fuel should reflect the fuel in use today and not anticipate future fuel supplies.

We also urge CARB to adopt a separate standard for biomethane, which will have a very different carbon intensity on a life-cycle basis than conventional natural gas. Biomethane should not, however, be subject to the federal Renewable Identification Number (RIN) tracking requirement because production of methane will be from a continuous process.

Volume obligation for ultra low carbon fuel: While CNGVC does not object in principle to an ultra low carbon fuel volume requirement, and may be supportive, there are too many unknowns at this point to render a judgment. Among our questions: What percentage of a fuel's total volume would have to be ultra-low carbon? What carbon level would qualify as ultra-low? Would the requirement be different for producers, providers and importers? We urge CARB to consider the merits of an incentive, rather than a requirement, to encourage production of ultra low carbon fuels.

Feedback: CNGVC can see benefits, and potential pitfalls, to either method of applying an ultra low carbon requirement. Imposing the requirement on the aggregate volume of a fuel sold in California gives the fuel industry flexibility in meeting the requirement, but CARB runs the risk of responsibility for compliance being diluted and unaccountable. Imposing the requirement on each obligated party addresses the accountability issue but may result in inefficiencies and undermine incentives for further production of ultra low carbon fuels. We look forward to working with CARB on this issue.

3. Compliance and Enforcement

Many of the comments below stem from a basic difference between liquid and gaseous fuels. It appears the compliance and reporting proposals are based on a liquid fuels model, which differs from gaseous fuels in important ways, including methods of production and distribution. As the comments below indicate, compliance and reporting requirements will need to account for these differences in order for the LCFS to function efficiently and accurately.

Obligated party: We urge CARB to further clarify the definitions of producer, provider and importer. It is unclear, for example, whether a utility that provides natural gas to a natural gas transportation fuel distributor would be considered a producer or provider. And if the utility is the provider, is the distributor not an obligated party? We look forward to working with CARB to clarify how these terms will be applied to natural gas. As indicated below, the answers to these questions will influence other important decisions, such as who carries reporting obligations and who gets LCFS credits for exceeding the carbon intensity reductions required by the LCFS.

Deficit allowance: A short-term deficit allowance, such as one compliance period as proposed by CARB, may be appropriate, depending on the length of the compliance period. CNGVC urges that credit deficits as well as variances be kept to a minimum with expeditious corrections required.

Point of regulation: *Feedback: CNGVC agrees that the question of who is the provider needs to be resolved, as noted in our comments above under "Obligated party." For example, if domestic gas is blended with imported LNG in the distribution system, the utility will be hard-pressed to provide the needed records to determine the AFCI of the aggregated fuel supplies at the retail level. We believe the ARB will face similar challenges for all fuels that are not produced in the vertically integrated fashion that is typical of gasoline and diesel production. We recommend a system-wide averaging method be developed to avoid overcomplicating this issue to the detriment of the overall program. In addition, we support the development of a gas accounting/procurement process which accounts and allows for specific non-core gas nominations and their associated LCFS benefit. Having a process of this nature may encourage the development of low carbon resources such as biomethane resources, among others. We understand the complexity of resolving these questions and know the ARB is looking to the industry for guidance. The CNGVC looks forward to working with CARB to evaluate these issues and develop effective solutions.*

Tracking and reporting: Provided that biomethane is not made subject to the federal Renewable Identification Number (RIN) tracking requirement, CNGVC supports the tracking and reporting requirements as outlined.

Reporting: *Feedback: The proper assignment of reporting obligations under the LCFS for natural gas depends on first clarifying issues addressed above, i.e. who is the producer and provider of natural gas. In general, we do feel strongly that the burden of reporting for compliance purposes should travel with the party that receives credits. CNGVC looks forward to working with CARB on reporting requirements for natural gas.*

4. LCFS Credits

Credit generation: CARB's decisions on how credits are generated and allocated will have a major influence on the success of the LCFS in not only reducing the carbon content of transportation fuels but also spurring a vibrant, diversified and economically viable alternative fuels market. For this reason, CNGVC supports the CARB recommendation that credits be awarded for over-compliance with the LCFS – but only to alternative fuels. In other words, alternative fuels whose carbon intensity is below the linear compliance path would qualify for credits. The amount of a credit would be based on how far below the compliance line a fuel is placed or valued.

As stated earlier, the goal of the LCFS is not only to reduce the carbon intensity of the state's transportation fuel supply, but to do it in a way that stimulates a diversified low-carbon alternative fuel market. For this reason, we recommend that gasoline and diesel obligated parties qualify for credits only when they have met the 10% carbon reduction requirement. A major goal of the LCFS should be to create incentives and opportunities for the incorporation of low carbon alternative fuels into the state's transportation fuel supply. Only then will the LCFS meet its dual goals of lower carbon intensity fuels and a viable diversified alternative fuels market. For the same reason, we support CARB's proposal, in 3.1.c, that requires non-

compliant obligated parties to meet its LCFS requirements by acquiring credits from other parties who have earned LCFS credits. We urge CARB to further clarify that these credits must be acquired from alternative fuel obligated parties that have met the LCFS requirement and have credits to sell.

Credit trading outside LCFS: CNGVC supports CARB's proposal to allow LCFS credits to be exported for compliance with other GHG reduction programs, but to disallow importing of credits outside LCFS to comply with the LCFS (CNGVC supports one way trading out of the LCFS).

5. Determination of Carbon Intensity Values

With the exception of the Refinery Efficiency provision, CNGVC accepts the approach adopted by CARB to determine carbon intensities.

Refinery efficiency: It is our view that refinery efficiency has no direct bearing on the obligation to meet the LCFS mandate. Oil refineries should not be provided with additional latitude in accomplishing a 10% carbon intensity reduction in their products by being allowed to factor in extraneous considerations. CNGVC notes that CARB has proposed an appropriate approach in its feedback question, by allowing refineries to earn AB 32 credits for refinery improvements. We believe AB 32, not the LCFS, is the appropriate forum for determining the value of refinery improvements and any credits generated by the improvements should be available under AB 32, not the LCFS.

Conclusion

CNGVC is encouraged that CARB has drafted a thoughtful and proactive approach to meeting California's LCFS mandate. We have identified several issues that need further attention. Specifically, we understand that more work is needed to calculate accurate AFCIs and to determine which parties are considered producer and provider in a multi-party production and distribution system that is common to natural gas. These decisions will help determine which parties will bear reporting responsibilities and earn credits and which compliance paths will be taken by both conventional and alternative fuel suppliers.

As noted in our comments, several opportunities still exist to strengthen the State's commitment to and support for the existing low and ultra low carbon intensive fuels, notwithstanding the small market share they currently command. In our view, by stimulating market penetration of natural gas and other alternative fuels though the LCFS, the state will maximize its opportunity to reduce the carbon intensity of the state's fuel supply and transform the state's transportation fuels into a diversified and economically viable market. We look forward to working with CARB on the continued development of this important measure.