October 24, 2014

California Air Resources Board
1001 "I" Street
Sacramento, CA 95812

ATTN: Mr. Wes Ingram, Manager, Fuels and Evaluation Section
Mr. Chan Phan, Air Resources Engineer

RE: LCFS Program - Comments on Proposed Changes to California GREET Model

Dear Mr. Ingram and Mr. Phan,

The American Gas Association appreciates the opportunity to comment on CARB staff's proposed changes to the California GREET Model in anticipation of reauthorization of the Low Carbon Fuel Standard (LCFS).

The American Gas Association, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. More than 65 million residential, commercial and industrial natural gas customers or more than 175 million Americans receive their gas from AGA members.

Today, natural gas meets almost one-fourth of the United States' energy needs overall, but only 0.2 percent of the energy used in our transportation sector. Greater use of natural gas as a transportation fuel can help us meet our national goals of reducing emissions of both greenhouse gases and criteria air pollutants. AGA member companies are investing in the fueling infrastructure that will continue to support the adoption of natural gas vehicles (NGVs). Switching to NGVs allows fleet operators to cut their fuel costs considerably, allowing them to return more investment to their businesses and contributing to local economic growth and job creation.

The California LCFS has been an important policy driver for the adoption of natural gas vehicles, and we fully support its reauthorization. We are concerned that introducing unnecessary regulatory uncertainty into the LCFS at this point will have significant negative effects on companies that have already made commitments to natural gas as a transportation fuel in light of this program, and will unduly discourage other businesses who are considering transitioning to natural gas vehicles in their fleets. We urgently **request that CARB allow additional time for review of, and potential modifications to, its proposed changes to the CA-GREET model and its inputs.**

Measuring methane emissions along the full natural gas value chain is a complex undertaking, and there are significant concerns pertaining to the quality of the data that is currently available. Recognizing the need for better data, AGA and other key stakeholders began efforts in 2012 to develop high-quality, real-world data on emissions from natural gas distribution systems and from natural gas refueling stations and natural gas vehicles. The results of these efforts will be available in peer reviewed scientific publications in the coming months. We strongly encourage CARB to refrain from any adjustment to the carbon intensity factors for natural gas based fuels until this data becomes available. AGA is a partner in two major efforts to collect high-quality data in this regard, as we describe below.

AGA and 13 of its member companies are working with Washington State University on a nationwide field study, with coordination and support from the Environmental Defense Fund (EDF), to better understand emissions associated with the distribution of natural gas. It is our hope that the results will not only help our efforts to further identify and measure sources of emissions, but also that the science that has been pioneered by this study will aide EPA and others with their emissions detection work. The results of this study have been submitted for peer review, and publication of the results is expected in the coming months.

In parallel, AGA is a partner with West Virginia University, EDF, and several other major stakeholders in the natural gas vehicle industry to measure and evaluate methane emissions that occur at natural gas refueling stations and at the point of use for natural gas vehicles, including both liquefied natural gas (LNG) and compressed natural gas (CNG). This work is nearing completion and we anticipate submission to peer review for publication in the technical literature shortly.

Given the impending availability of better quality data pertaining to upstream methane emissions, we suggest it would be extremely premature for CARB to change the carbon intensity values for natural gas before this data becomes available. We urge CARB to refrain from updating the CA GREET model inputs until these current efforts are published. To do otherwise would undermine the credibility of the CARB program, since the limitations of the current data set are well known and in fact have spurred our efforts in this regard.

We are also concerned that the proposed modifications to the CA-GREET model have not been appropriately vetted by stakeholders, and that there are early indications that the methodology used in the update is problematic. We are familiar with a recent analysis by the consulting firm ICF that raises questions regarding the applicability of EPA data used in the model. For example, it appears from the ICF analysis that data pertaining to one vehicle class has been extrapolated to apply to different vehicle classes incorrectly. We ask that CARB delay any modifications to the underlying CA-GREET model until these apparent inconsistencies can be addressed.

Finally, we are concerned that CARB may intend to update the carbon intensity factors used for CNG and LNG without also updating the factors for other alternative fuels, including electric, hydrogen, and biofuels. Natural gas is an important upstream input for each of these alternatives. Applying new factors for CNG and LNG without also re-evaluating other alternative fuels simultaneously would unnecessarily call into question the integrity of the LCFS. We urge CARB to take an even handed approach and re-evaluate the carbon intensities of all alternative fuels in tandem before introducing changes to the implementation of the LCFS.

We understand that CARB has the ability to reauthorize the LCFS legislation in February 2015 without simultaneously updating the CA-GREET model; and that CARB also has the authority to update the carbon intensity factors for fuels independent of reauthorization. We strongly encourage CARB to refrain from changes to the carbon intensity values used for natural gas fuels under the LCFS until better data is available, and from making any modifications to the CA-GREET model until proposed changes receive a full and open review by all stakeholders. We further encourage CARB to proceed with reauthorization of the LCFS in a timely fashion, recognizing the importance of this policy to drive greater adoption of alternative transportation fuels, including natural gas.

Sincerely,

Kathryn Clay, Ph.D.
Vice President for Policy Strategy
American Gas Association