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Special Committee on Nuclear Power

Motion for Consideration At the Committee's January 29, 2007 Meeting

Submitted by Public Member Mike Corradini

<u>Moved</u> that the Special Committee on Nuclear Power recommend to the Joint Legislative Council that the Joint Legislative Council create a study committee to examine alternatives for ensuring that fuels used in the transportation sector in this state are sustainable.

Background information: An example of a recently established state policy that addresses the sustainability of transportation fuels is the executive order signed by California Governor Arnold Schwarzenegger on January 18, 2007, number S-01-07. Governor Schwarzenegger's press release on this executive order, which includes the text of the executive order, is provided below, starting on the next page.



PRESS RELEASE

01/18/2007 GAAS:039:07 FOR IMMEDIATE RELEASE

Gov. Schwarzenegger Signs Executive Order Establishing World's First Low **Carbon Standard for Transportation Fuels**

World's first Greenhouse Gas Standard for transportation fuels will reduce dependence on oil, boost clean technology industry in California and reduce greenhouse gas emissions.

Continuing his historic leadership to reduce greenhouse gas (GHG) emissions and lower California's reliance on foreign oil, Governor Schwarzenegger signed an Executive Order establishing a groundbreaking Low Carbon Fuel Standard (LCFS) for transportation fuels sold in California. By 2020 the standard will reduce the carbon intensity of California's passenger vehicle fuels by at least 10 percent. This first-of-its kind standard will support AB 32 emissions targets as part of California's overall strategy to fight global warming.

"Like the rest of the nation, California relies excessively on oil to meet its transportation needs. In fact, 96 percent of our transportation fuel is oil. And that means our transportation fuels are responsible for more than 40 percent of California's greenhouse gas emissions," said Governor Schwarzenegger. "Being dependent on one source of fuel leaves our economy and our national security vulnerable to price shocks and global events beyond our control. Reducing the carbon content of transportation fuels sold in California by just 10 percent means we will replace 20 percent of our gasoline consumption with lower-carbon fuels, more than triple the size of the state's renewable fuels market, and add 7 million alternative fuel vehicles to our roads.

"Right now, entrepreneurs from around the world are investing billions of dollars in clean technologies and alternative fuels. With this initiative, we are saying invest in California.

"We continue to set the example for the nation and the world on how to ensure a clean, healthy and secure future for our children and grandchildren."

The LCFS requires fuel providers to ensure that the mix of fuel they sell into the California market meets, on average, a declining standard for GHG emissions measured in CO2-equivalent gram per unit of fuel energy sold. By 2020, the LCFS will produce a 10 percent reduction in the carbon content of all passenger vehicle fuels sold in California. This is expected to replace 20 percent of our on-road gasoline consumption with lower-carbon fuels, more than triple the size of the state's renewable fuels market, and place more than 7 million alternative fuel or hybrid vehicles on California's roads (20 times more than on our roads today).

The LCFS will use market-based mechanisms that allow providers to choose how they reduce emissions while responding to consumer demand. For example, providers may purchase and blend more low-carbon ethanol into gasoline products, purchase credits from electric utilities supplying

low carbon electrons to electric passenger vehicles, diversify into low carbon hydrogen as a product and more, including new strategies yet to be developed.

The University of California estimates that the Governor's greenhouse gas (GHG) emissions goals can increase Gross State Product by about \$60 billion and create over 20,000 new jobs. As a result of AB 32 and other initiatives, including the Million Solar Roofs and Hydrogen Highway projects, the Bioenergy Action Plan and the Strategic Innovation and Research Initiative, California drives clean technology research, investment and development nationally. California leads the nation in clean tech investment, attracting \$484 million in venture capital to California in 2005 alone-40 percent to startups in energy generation and efficiency sectors. The Low Carbon Fuel Standard further expands the state's clean tech market by creating more sustainable demand for cleaner fuels.

The Governor's Executive Order directs the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission (CEC), the University of California and other agencies to develop a draft compliance schedule to meet the 2020 goals for carbon intensity reductions in transportation fuels. This analysis will become part of the State Implementation Plan for alternative fuels as required by AB 1007 (Pavley, Chapter 371, 2005) and will be submitted to the California Air Resources Board for consideration as an "early action" item under AB 32. The ARB will complete its review of the LCFS protocols for adoption as an early action no later than June, 2007. The ARB will also begin a regulatory process in the summer of 2007 to implement the Low Carbon Fuel Standard. It is expected that the regulatory process at ARB to implement the new standard will be completed no later than December, 2008.

In 2005, there were more than 24 million vehicles registered in California which is more than one per licensed driver. Statewide gasoline consumption was almost 16 billion gallons in 2005 which is second only to the entire United States and slightly more than that of Japan (a country with four times the population). Currently, there are only 80,000 hybrids and 240,000 flex-fuel vehicles on our roads today, together composing only 1.3% of all cars in California.

Last September, Gov. Schwarzenegger signed <u>AB 32</u> by Assembly Speaker Fabian Nunez (D-Los Angeles), California's landmark bill that established a first-in-the-world comprehensive program of regulatory and market mechanisms to achieve real, quantifiable, cost-effective reductions of greenhouse gases.

The full text if the executive order is below.

EXECUTIVE ORDER S-01-07

WHEREAS greenhouse gas ("GHG") emissions pose a serious threat to the health of California's citizens and the quality of the environment; and

WHEREAS California's transportation sector is the leading source of GHG emissions in the state, contributing over 40 percent of the state's annual GHG emissions; and

WHEREAS Assembly Bill 32 (Chapter 488, Statutes of 2006) requires a cap on GHG emissions by 2020, mandatory emissions reporting, identification of discrete early action measures, achievement of the maximum technologically feasible and cost-effective emission reductions from sources, and authorizes the development of a market-based compliance program; and

WHEREAS California is almost entirely dependent on one energy source for its transportation economy, relying on petroleum-based fuels to meet 96 percent of its transportation needs; and

WHEREAS there were more than 24 million motor vehicles registered in California in 2005 which is more than one per licensed driver; statewide gasoline consumption was almost 16 billion gallons in 2005 which is second only to the United States and slightly more than that of Japan (a country with four times the population); and there are only 80,000 hybrids and 240,000 flex-fuel vehicles on our roads today, together composing only 1.3% of all cars in California; and

WHEREAS California's dependence on a single type of transportation fuel whose price is highly volatile imperils our economic security, endangers our jobs, and jeopardizes our industries; and

WHEREAS diversification of the sources of transportation fuel will help protect our jobs and economy from the consequences of oil price shocks; and

WHEREAS alternative fuels can provide economic development opportunities and reduce emissions of greenhouse gases, criteria pollutants, and toxic air contaminants.

NOW, THEREFORE, I, ARNOLD SCHWARZENEGGER, Governor of the State of California, by virtue of the power invested in me by the Constitution and statutes of the State of California, do hereby order effective immediately:

- 1. That a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 ("2020 Target").
- 2. That a Low Carbon Fuel Standard ("LCFS") for transportation fuels be established for

California.

- 3. The Air Resources Board ("ARB") shall determine if an LCFS can be adopted as a discrete early action measure pursuant to AB 32, and, if so, shall consider the adoption of a LCFS on the list of early action measures required to be identified by June 30, 2007, pursuant to Heath and Safety Code section 38560.5.
- 4. The LCFS shall apply to all refiners, blenders, producers or importers ("Providers") of transportation fuels in California, shall be measured on a full fuels cycle basis, and may be met through market-based methods by which Providers exceeding the performance required by a LCFS shall receive credits that may be applied to future obligations or traded to Providers not meeting the LCFS.
- 5. The process for meeting the 2020 Target shall be as follows:
 - A. The Secretary of the California Environmental Protection Agency ("Secretary") shall coordinate activities between the University of California, the California Energy Commission ("CEC"), and other agencies as required to develop and propose by June 30, 2007, a draft compliance schedule to meet the 2020 Target.
 - B. The CEC shall incorporate as appropriate the LCFS draft compliance schedule into the State Alternative Fuels Plan ("SAFP") per AB 1007 (Chapter 371, Statutes of 2005), and upon adoption shall submit the SAFP to the ARB for consideration.
 - C. Upon submission of the SAFP, the ARB shall consider initiating a regulatory proceeding to establish and implement the LCFS.
- 6. The Public Utilities Commission, in the implementation of the GHG emissions cap adopted by Decision 06-02-032, is requested to examine and address how the investor-owned utilities can contribute to reductions in GHGs in the transportation sector.
- 7. The Secretary for Environmental Protection shall report to the Governor and the State Legislature by January 2008 and biannually thereafter on progress made toward meeting the 2020 Target.

This Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its departments, agencies, or other entities, its officers or employees, or any other person.

I FURTHER DIRECT that as soon as hereafter possible, this Order shall be filed with the Office of the Secretary of State and that widespread publicity and notice be given to this Order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 18th day of January 2007.

Arnold Schwarzenegger

Governor of California

ATTEST:

DEBRA BOWEN

Secretary of State