November 19, 2008

Mary Nichols, Chairperson
California Air Resources Board
1001 I St., P.O. Box 2815
Sacramento, CA 95812

RE: AB 32 Proposed Scoping Plan Comments on Medium and Heavy-Duty Trucks and Goods Movement

Dear Chairperson Nichols and Members of the Board:

The Union of Concerned Scientists, Natural Resources Defense Council, Environmental Defense Fund, Sierra Club California, The Center for Energy Efficiency and Renewable Technologies, and American Lung Association of California applaud the California Air Resources Board (CARB) for developing the nation's most comprehensive plan to date for reducing the pollution that causes global warming. Heavy-duty vehicles and goods movement sources account for over 20 percent of transportation related emissions, with significant growth expected in the coming decade. Many of the measures to reduce greenhouse gases (GHGs) from goods movement sources have positive economic benefits as a result of fuel savings and operational efficiencies associated with them. In addition, co-benefits of reduced diesel emissions can aid California in its fight to achieve clean, healthy air throughout the state. We fully support CARB's inclusion of measures to reduce GHG emissions from medium- and heavy-duty trucks as well as the broader goods movement sector. However, we believe a stronger commitment is necessary to reduce emission from trucks, the largest source of goods movement GHG emissions and responsible for 7 percent of all GHG emissions in California.

Medium and Heavy-Duty Trucks
We support CARB's proposals to improve heavy-duty truck emissions through aerodynamic improvements, use of low rolling resistance tires, and hybridization. Improving the aerodynamics and rolling resistance of heavy-duty trucks using technology available today, as proposed in the draft GHG Truck regulation (T-7) scheduled to be heard in December, will achieve significant reductions through 2020. This measure will improve the efficiency of certain types of heavy-duty trucks by up to 10 percent, reduce fuel consumption, reduce GHG emissions and criteria pollutants, and save truck operators money. The proposed measure (T-8), focused on hybridization of medium- and heavy-duty trucks, could also provide significant benefits for trucks in certain applications.

However, these measures will not fully capture the emission reductions available from this sector in the 2020 or 2050 timeframes. To do so, CARB should reinstate the heavy-duty engine efficiency measure in the scoping plan. In addition CARB should:

- Evaluate the technical potential and regulatory strategies available for GHG reductions from medium- and heavy-duty trucks from improvements in aerodynamics, rolling

resistance, transmission and drive-train, engine technologies, optimization through vehicle integration and weight reduction, and others. CARB should also identify the emission reductions needed from medium- and heavy-duty trucks in the post 2020 timeframe to be consistent with the 2050 reduction goals.

- Begin implementation of technology-forcing GHG standards by 2015 for new trucks that put us on track to achieving the emission reductions needed from this source in the 2020 and 2050 timeframes. CARB should continue to monitor the development of federal standards to reduce emissions from heavy-duty trucks. Should federal action not be taken to achieve reductions of a magnitude sufficient to meet California's needs, then California will be prepared to implement appropriate standards without further delay.

Technology and Regulatory Evaluation

EPA's recent evaluation of heavy-duty truck technologies indicates a 40 percent GHG reduction from heavy-duty trucks in the 2015 time frame is possible, while previous studies showed 50 percent or greater reductions are possible**.** CARB should undertake a full evaluation of the technological potential for GHG reductions from medium- and heavy-duty trucks and regulatory options available to achieve those reductions. This analysis would provide the basis for moving forward with a California GHG regulatory standard.

Implementation of Standards

Taking a "wait and see" approach by relying on market forces and federal regulatory action with respect to medium- and heavy-duty truck GHG emissions could result in years of delay and lost emission reductions. While the federal government has been tasked with developing fuel economy standards for trucks, implementation deadlines for these standards are uncertain as are the magnitude of the reductions that will be achieved. Relying on federal standards to achieve GHG emission reductions from heavy-duty trucks could fall short of California's needs, as has been the case with federal light duty fuel economy standards.

Market forces are also unreliable, as the uncertainty of regulatory action, fluctuating oil prices, and split incentives affect manufacturer research and development as well as fleet adoption rates of technology. CARB has already recognized market failures in the trucking industry with their proposal to require aerodynamic improvements and low rolling resistance tires. If market forces or federal regulation do not provide sufficient emission reductions, California could find itself years behind in implementing their own standards.

Implementation of truck standards which incorporate advancements in engine, chassis and other components is in line with recommendations of the Economic and Technology Advancement and Advisory Committee[1] and would spur innovation and bring new technologies to the marketplace to improve truck global warming emissions. Given the investment in truck replacements over the coming decade in response to CARB criteria pollutant emission regulations, now is the time to improve GHG emissions from new trucks. As proven by past success, California can lead the nation, and set global precedents in getting the cleanest cars and trucks in the world onto the state's roads and highways.

[1] As noted in the September 5, 2008 ETAAC letter on the draft scoping plan on page 6 of the detailed comments.

Goods Movement
We fully support system-wide efficiency improvements in the goods movement sector and the global warming pollution reduction goals found in measures T-5 and T-6. This sector presents numerous opportunities to improve efficiency from our current, outdated approach to transporting cargo. Although many efficiency improvements are long term strategies, they would benefit from planning in the near term as our goods movement system is rapidly growing. We urge CARB to form a Goods Movement Vision 2050 Task Force as an advisory body to develop comprehensive strategies to achieve 2020 emission targets in addition to 2050 goals. The taskforce should evaluate the following potential measures covering ships, port trucks, commercial harbor craft, cargo equipment and refrigeration units and look forward to working with staff to develop these further:

- Advanced hull and propeller designs, coatings and maintenance, advanced engine design, heat recovery and operational controls, and utilization of wind power for ships.
- Fleet modernization for port trucks, electric drayage trucks, improved idling limit enforcement, lower speed limits and improved logistics.
- Efficiency improvements for harbor craft and electrification.
- Idling restrictions for cargo equipment and use of higher efficiency and electrified equipment where feasible.
- Energy efficiency guidelines and limitations to the use (or over-use in the case of extended cold storage) of transport refrigeration units on trucks, trailers, shipping containers and railcars.
- Increased on-dock rail, rail electrification and rail efficiency improvements.
- Increased use of more efficient transportation modes (i.e. use of rail over trucks where feasible).
- Alternative efficiency improvements, such as intelligent container design and improved packaging of goods

In order to facilitate an accurate accounting for sources of GHGs within this sector, CARB should include all major ports, railyards, distribution centers and truck stops in the mandatory reporting regulation. We look forward to working closely with staff to design appropriate strategies to meet the goods movement reduction target.

Sincerely,

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Environmental Defense Fund

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