

May 18, 2016

The Honorable Dr. Ernest Moniz  
Secretary, US Department of Energy  
1000 Independence Avenue SW  
Washington, D.C. 20585

Dear Mr. Secretary:

The Northeast States for Coordinated Air Use Management (NESCAUM)<sup>1</sup> is writing to commend the Department on the SuperTruck II initiative and to encourage you to consider adding new elements to the research program that will expedite the development of optimized heavy-duty engines and vehicles to simultaneously reduce petroleum consumption and greenhouse gas (GHG) pollution, and improve air quality. Specifically, we request that the SuperTruck II research agenda be modified to consider technologies that will also achieve significant reductions of nitrogen oxides (NO<sub>x</sub>), such as is envisioned by California's voluntary 0.02 g/bhp-hr heavy-duty vehicle NO<sub>x</sub> standard. NO<sub>x</sub> reductions from heavy-duty mobile engines and vehicles are important to help states cost-effectively attain the national ambient air quality standards for ozone and particulate matter. These pollutants are responsible for tens of thousands of premature deaths, hospital admissions, and lost work and school days in the U.S. annually.

The NESCAUM region, home to more than 42 million people, is still subject to episodes of poor air quality. Local and regional mobile sources contribute significantly to elevated ozone and fine particle concentrations in the region. During severe events, the problem can extend beyond NESCAUM's borders to over 200,000 square miles across the eastern United States.

Heavy-duty vehicles represent the second largest source of NO<sub>x</sub> emissions in the NESCAUM region. A SuperTruck II research agenda that includes consideration of advanced NO<sub>x</sub> reduction technologies along with fuel economy increases and GHG reduction measures would help address an important need in our region, as well as in other locations facing similar air quality challenges. In fact, optimizing for both NO<sub>x</sub> and GHG reductions could result in more cost-effective reductions in both pollutants than could be achieved individually. Another research path would be to look at alternative energy systems, such as hydrogen fuel cells, that could simultaneously address all air pollutants emitted by fossil fuel combustion.

As you know, the U.S. EPA is expected to set final Phase 2 GHG emission standards for medium- and heavy-duty engines and vehicles sometime this summer. California is expected to

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<sup>1</sup> NESCAUM is an association of the state air quality agencies in the six New England States, New Jersey, and New York. This letter reflects the majority views of NESCAUM as a state membership organization. Individual NESCAUM member states may hold views different from the NESCAUM states' majority consensus.

set a 0.02 g/bhp-hr NOx standard for the same vehicles in the near future. Given our continuing ozone nonattainment challenges, many of our states will be seriously considering adoption of these tighter California standards.

There is a risk that potential GHG and NOx reduction benefits associated with co-optimization could be lost if implementation of these two sets of standards are not temporally aligned. Modifying SuperTruck II to include the optimization of engines/vehicles for both lower NOx and GHG standards will help make the technical demonstration that is necessary to ensure that reductions of these pollutants are done in a cost-efficient and expedited manner.

In summary, we urge you to consider technologies that would achieve additional NOx reductions from heavy-duty trucks in the SuperTruck II program. Including the likelihood for more stringent NOx requirements in the presence of GHG emission reductions in the research topics and technical areas of interest would better reflect the future trajectory of air quality planning needs. It would also help industry deliver greater reductions in overall emissions than might otherwise result from a singular focus on GHG reductions, and demonstrate the value of coordinating the implementation future emission standards for these pollutants.

Sincerely,



Arthur N. Marin  
NESCAUM Executive Director

cc: NESCAUM directors  
EPA R1 & R2