

We do not agree, however, that either VVLT or improved shift logic will yield the benefits claimed by Environmental Defense. We note that the NAS panel was afforded an opportunity to review similar returns claimed for these technologies and did not, on an incremental basis similar to that used here by the agency, adopt the claimed values.⁴ In regard to the technologies used, NHTSA believes that the lead time available restricts the agency from assuming that manufacturers will be able to rely on advanced technologies that are not yet proven or available for use.

8. Diesel Engines and HEVs

Automobile manufacturers and their associations commented that NHTSA's exclusion of advanced diesels and hybrid electric vehicles (HEVs) from the technology analysis was appropriate given the emissions and cost challenges facing advanced diesels and HEVs, respectively. Environmental organizations and another commenter expressed greater optimism regarding diesels for consideration in setting the CAFE standard. The American Council for an Energy-Efficient Economy commented that NHTSA's technology analysis was inadequate because it excluded HEVs and diesels. Cummins stated that its diesel engine development program demonstrates a fuel economy improvement of 50 percent-70 percent over gasoline engines. Cummins also stated that target engine availability is within the time frame proposed in the NPRM. The Alliance to Save Energy cited the Ford Escape HEV as surpassing most passenger cars in fuel economy and as providing support for the proposition that there is no technological reason for NHTSA not to require a significant increase in fuel economy standards for all light trucks.

As described above, since the publication of the NPRM both public and private initiatives have been announced. These include a government initiative to develop, over the longer term, viable hydrogen fuel cell powered transportation and General Motor's initiative to begin to offer optional hybrid propulsion systems in light trucks. In addition, Ford Motor Company and DaimlerChrysler will offer hybrid and modern diesel Sport Utility Vehicles beginning with MY 2004. We believe it possible that an

active market for hybrid and modern diesel vehicles may significantly enhance the actual fuel economy of the light truck fleet by MY 2007. The infusion by these companies and others of advanced technology vehicles into that market is an important step towards that development.

Although we mentioned our support for the development of a market for the advanced diesels and hybrid electric vehicles in the NPRM, we did not incorporate them into the proposal because we did not have information on the extent of product offerings and marketing to generate public interest in them during MYs 2005-2007. For the final rule, we have incorporated hybrid and diesel vehicles incorporated into the manufacturers' product plans, but not beyond. We continue to note, however, that such vehicles may yet come to play an important role in the market by MY 2007.

B. Economic Comments

1. Cost of Specific Technologies

General Motors, Ford, the Alliance and Toyota Motor North America, Inc. (Toyota) argued that manufacturer incremental costs are understated. Ford and General Motors asserted that NHTSA's analysis underestimates the costs for applying certain technologies and thus underestimates its costs per fuel economy improvement for those technologies. General Motors claimed that part of NHTSA's underestimation occurs as the result of a clerical error because NHTSA did not use the technology costs identified in its rulemaking support documents, but instead used much lower costs.

General Motors also stated that the Volpe analysis assumes that all technologies will cost manufacturers the same amount for all models no matter how much progress has been made to date. General Motors stated that NHTSA's assumption that it can make improvements in these areas at the same rate and at the same costs to other manufacturers is incorrect. Public Citizen, Honda, and 20/20 Vision commented that fuel-efficient vehicles, e.g., hybrids, could be manufactured for reasonable costs.

2. Projected Number of Sales

General Motors and other manufacturers argued that the sales rate used by NHTSA for new model year vehicles during the first several months of a model year was too high (4.167 percent vs. 3.125 percent) and that the agency mistakenly assumed that all vehicles of a given model year would be on the road and in use by January 1 of

the calendar year following the start of that model year. General Motors commented that NHTSA's benefit model does not accurately reflect the number of new vehicles on the road during the initial calendar years in which they were sold. General Motors provided a number that reduced the total societal benefits for the three years by \$62M.

3. Impact on Consumer Choice

General Motors asserted that some product restrictions might be necessary to achieve the proposed levels. The Recreational Vehicle Industry Association stated that reductions in size and towing capacity of light trucks resulting from proposed levels may restrict size, weight, and capacity offerings in trailers and conversion vehicles.

The agency tentatively concluded in the NPRM that the standards would not lead to product restrictions or impede consumer choice. We believe that the CAFE standards established today will not diminish the existing vibrant market for light trucks, offering the public a wide array of features and functions. We further believe that sufficient lead time exists before MY 2007 such that technologies not currently within manufacturers' product plans and/or the development of a market for alternative propulsion systems may significantly enhance fuel economy performance without affecting the features and functions offered to consumers.

4. Baseline of 20.7 MPG

The Alliance and Ford asserted that manufacturer incremental costs are understated because many manufacturers have already added significant costs in anticipation of the increased CAFE standards that are not included in the agency's incremental costs. The Alliance suggested that a more appropriate baseline would utilize data from the current model year assuming the manufacturers meet the 20.7 mpg CAFE standard absent technologies used in anticipation of future standards.

Public Citizen argued that the agency relied too heavily on the manufacturers for the baseline mpg level and for estimated mpg levels for future model years. The Alliance to Save Energy argued that the proposal should have considered the manufacturers' voluntary commitments to improve the fuel economy of their fleets (citing Ford's 2001 commitment to improve SUV fuel economy by 25 percent by 2005) and indicated that hybrid technology should have been weighted more in determining model year baselines.

⁴ Committee on the Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards, National Research Council, Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards, Washington, DC, National Academy Press, 2002, p. 136.