

The agency determined that Ford could reach these levels by raising its projected CAFE by an additional .08 mpg from 20.9 mpg in MY 2005 and an additional .19 mpg from 22.0 mpg in MY 2007. Ford's response to the NPRM did not specifically dispute NHTSA estimates for MYs 2005 and 2006. However, Ford indicated that it believed the agency's projection for its CAFE for MY 2007 overstated the company's capability by as much as a tenth of a mile per gallon.

In its response to the NPRM, Ford indicated that it viewed NHTSA's proposal as technologically challenging and submitted updated information about its product plans that supported this contention. At the same time, Ford indicated that it was committed to taking additional actions beyond those it already planned to achieve these "difficult" standards. The company indicated, as did General Motors and other manufacturers, that the agency's proposal underestimated the leadtime needed to incorporate fuel economy improvements in vehicles as well as the difficulties of introducing new technologies across a large manufacturer's fleet. Ford also indicated that hybrid and advanced diesel technology are not mature enough to improve overall CAFE performance significantly. In Ford's view, the weight increases due to safety standards have been significantly underestimated. Ford also commented that NHTSA's proposal did not account for any risks that projected increases in fuel efficiency would not materialize. As a general matter, the company also said that increased sales of full-size trucks could erode its CAFE estimates in spite of its plans.

In regard to specific changes to Ford's fleet projected by NHTSA, Ford argued that it could not take some of the measures that NHTSA had identified in the agency's Stage analysis. Some of these measures, according to Ford, would be much more costly than NHTSA estimated. Others, in Ford's view, had not yet been sufficiently proven to be suitable for use on MY 2005–2007 vehicles. Ford noted that NHTSA's use of some proven technologies would make it necessary for that company to expend tremendous resources. The company also noted that some technologies, although proven and presumably available, would not be acceptable to consumers.

NHTSA projects that Ford has the technological capability to meet the light truck CAFE standards set forth in this final rule. After reviewing Ford's comments, NHTSA has undertaken a further analysis of the company's

projected capabilities and the technologies available for improving Ford's CAFE. As with General Motors and DaimlerChrysler, the agency did not include expanded production of hybrid electric or diesel engines beyond those already included in each company's product plans. However, as noted above, we believe these advanced technologies are likely to offset some of the potential risks Ford anticipates and potentially may enhance CAFE performance beyond current projections. Further, our analysis continues to apply technologies as a means of improving fuel economy in lieu of weight reduction and downsizing.

After reviewing Ford's comments, we made a number of revisions to our analysis. A more detailed account of these changes is found in the FEA accompanying this document. In general, we adjusted our estimates based on the updated product plans contained in Ford's comments. Using these plans, we considered the extent to which certain fuel economy measures are now being implemented within the industry and considered those technologies that will be sufficiently mature to be available in MYs 2005–2007. These technologies were then applied in a fashion consistent with how other manufacturers are using them and, in our view, consistent with Ford's projected capabilities.

Ford's comments also indicated that it believed that NHTSA has seriously underestimated the weight penalty, and subsequent loss in fuel efficiency, caused by weight increases necessitated by safety standards. As indicated below in our discussion of the impact of other federal standards on fuel economy, NHTSA disagrees. Some of the weight penalties claimed by Ford are related to proposed requirements that are not yet final. Others are more speculative and based on agency initiatives that have not yet generated proposals. For rules that are already in place, NHTSA believes some of the Ford claims overestimate the impact.

Based on the Stage analysis, Ford's projected light truck CAFE is 20.96 mpg in MY 2005, 21.56 mpg in MY 2006 and 22.23 mpg in MY 2007. The Volpe analysis indicates that Ford can achieve 21.00 mpg for MY 2005, 21.68 mpg for MY 2006, and 22.2 mpg for MY 2007.

3. DaimlerChrysler

The agency's December 2002 NPRM projected that DaimlerChrysler was capable of achieving a light truck CAFE of 21.3 mpg for MY 2005, 21.6 mpg for MY 2006 and 22.2 mpg for MY 2007. Although DaimlerChrysler's comments in response to the NPRM characterized

the agency's proposal as extremely challenging, the company did not dispute that it was capable of achieving these levels of fuel economy. However, DaimlerChrysler commented that the foregoing fuel economy projections would remain valid only so long as DaimlerChrysler's planned technology advancements and product mix remained intact.

The company warned that there were significant risks that expected fuel economy gains might not be realized or that consumer demand for less fuel efficient vehicles could cause a reduction in DaimlerChrysler's CAFE. Therefore, DaimlerChrysler suggested that NHTSA revise its proposal to reflect more accurately the risks faced by the company and other manufacturers in pursuing improved fuel economy. DaimlerChrysler indicated that the NHTSA proposal should be 20.9 mpg for MY 2005, 21.1 mpg for MY 2006 and 21.5 mpg for MY 2007.

DaimlerChrysler indicated that reducing the agency's proposed levels was supported by a number of considerations. The company noted that NHTSA had not seemed to consider that there were any risks that technologies might not yield greater efficiency or consumers would demand less efficient vehicles. DaimlerChrysler stated that these risks were particularly significant given the short lead time available to manufacturers if any changes needed to be made to their products for MYs 2005–2007. According to DaimlerChrysler, it was essentially "locked in" to its product plans for MYs 2005 and 2006. The company further indicated that even its MY 2007 product plans could only be changed in the most limited fashion. Due to this lack of leadtime, DaimlerChrysler cautioned NHTSA that it would not be possible for it, or any other vehicle manufacturer, to institute anything more than minor changes to its products through MY 2007.

The Agency's Stage analysis projects that DaimlerChrysler can achieve 21.3 mpg for MY 2005, 21.6 mpg for MY 2006, and 22.2 mpg for MY 2007. The Volpe analysis indicates that DaimlerChrysler can achieve 21.32 mpg for MY 2005, 21.60 mpg for MY 2006, and 22.24 mpg for MY 2007.

NHTSA acknowledges that its proposal simply specified a single value for CAFE for each year rather than stating ranges for each of the three model years. This led a number of commenters to conclude that the agency did not account for any risks that consumer demand may shift or that technologies would not yield expected fuel savings. However, the agency is