TESTIMONY BY

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Proposed Rulemaking to Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards

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Thank you for the opportunity to address you today on the proposed rulemaking to establish light-duty vehicle greenhouse gas emission standards and corporate average fuel economy standards.

The National Program is supposed to establish strong and coordinated federal greenhouse gas and fuel economy standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles. For the National Program to be successful, stakeholders with diverse views need to cooperate. EPA, NHTSA, CARB, and the automakers are to be commended for establishing the joint rulemaking process for managing automotive CAFE and GHG emissions standards.

In my comments today I first summarize findings from two recent research studies on the impacts of the National Program and then address concerns

1

about three elements of the nascent joint rulemaking process—transparency of the process, the use of multipliers to estimate indirect cost impacts, and the measurement of welfare impacts.

Recent research findings

The first study, recently released by Citi Investment Research & Analysis, is called "CAFE and the U.S. Auto Industry Revisited. " It was written in partnership with Ceres, the Investor Network on Climate Risk, the Planning Edge, and Meszler Engineering Services.

The study analyzed two regulatory scenarios: CAFE 2020—an industry-wide target of 35 mpg in 2020; and "national Pavley" (equivalent to the National Program)—an industry-wide target of 35 mpg in 2016. In each scenario, we estimated the impacts on sales, costs, and profits relative to a baseline forecast.

The analysis found that the proposed National Program is likely to benefit both the Detroit 3 and the Japan 3 by boosting profits, based on the relative value consumers put on fuel costs compared to vehicle price, the future price of fuel, and the level of direct costs to improve fuel economy. The study found that by producing more competitive, fuel-efficient fleets in the coming years the Detroit 3 would be able to slow or reverse the market share erosion that has accelerated in recent years.

Consumers will benefit as well, since fuel savings from more efficient cars – even at the present gas price of $2.50 a gallon – will more than offset slightly higher prices for vehicles incorporating new fuel-saving technologies. Under the National Program, the present value of the fuel saved will be greater than the increase in purchase price associated with the new fuel saving technology.

2

The second study, "Fixing Detroit: How Far, How Fast, How Fuel Efficient" (which my colleague Rob Kleinbaum co-authored) was completed in June 2009.

The report modeled the impact of three different fuel economy standard increases—30 percent (35 mpg), 40 percent (37.7 mpg) and 50 percent (40.4 mpg)—on the profitability and sales of the auto industry.

Results indicated that the Detroit 3 would have increased profit (over the baseline) in the three scenarios, and their profit gains would be larger the more aggressively they pursue improvements in fuel economy. The Japan 3 (Toyota, Nissan, and Honda) would also gain profit from pursuing higher fuel economy, but their gains would be smaller than those of the Detroit 3. These profit gains would result because higher fuel economy is worth more to consumers than it costs the automakers.

Both studies find that the National Program will benefit consumers through fuel savings and automakers through opportunities to increased profit.

II. Transparency

Secondly – I want to highlight and comment the proposed transparency in the rulemaking.

EPA and NHTSA have proposed a new methodology for analyzing potential CAFE and GHG emissions standards that is more transparent, replicable, and accurate that the prior methodology.

Among other objectives, Congress wants fuel economy standards that balance the benefits from reducing negative external effects of fuel consumption with the costs of improving vehicle fuel economy. The benefits can generally be estimated with public data, but to estimate the costs it would be helpful to use private information on costs known only to the

3

automakers. This information asymmetry has the potential to introduce "gaming" into the process.

NHTSA has historically based its analysis of potential new CAFE standards heavily on private information—extensive and detailed product plans for vehicles, engines, and transmissions. This private information is obtained voluntarily, and NHTSA is obligated to prevent its public disclosure.

The new approach is more transparent. The information sources (with few exceptions), are all either in the public domain, available to the public upon request, or available commercially. This is arguably the most profound change in the methodology. In the past, the process was essentially immune from rigorous review. In the new process, anyone can repeat and review the analyses done by the agencies.

Transparency produces some tangible benefits. The new approach reduces the potential for errors (whether of omission and/or commission) that have been observed in past responses to NHTSA's requests. The new approach more accurately measures the incremental costs and benefits of the proposed standards. The product plans submitted recently show a significant increase over prior plans in applications of technology to improve fuel economy. To the extent that improvements have been planned in anticipation of future increases in CAFE standards, they should not be in the baseline. They would be in the old process.

III. Estimating impacts on indirect costs and retail prices

Third – I would like to comment on estimating impacts on indirect costs and retail prices in Section III. H.2 "Costs Associated with the Vehicle Program."

My comments are in support of the indirect cost multipliers (ICM) used by EPA to account for indirect costs. As a subcontractor to RTI, I assisted EPA

4

in developing the methodology used to estimate indirect cost multipliers and retail price equivalent multipliers (RPE).

The costs of complying with the proposed regulations should be defined to include only those costs that change due to the regulations. When compliance necessitates adding equipment to the vehicle, the compliance costs include direct manufacturing costs associated with new technology (materials and direct production labor) plus the change in those indirect cost items that are affected (e.g., engineering development cost).

In most cases, direct costs can be estimated without difficulty or controversy. However, indirect costs are more difficult to estimate and have been the subject of considerable controversy. The methodology guides EPA analysts in identifying indirect costs that are likely to be affected by regulations. The methodology is supported by estimates of RPE and ICM for several automakers that we derived from recent annual financial reports and other public data.

The EPA uses a range of indirect cost multipliers (ICM), depending on the timing of the application of the regulation and the complexity of the technology that is anticipated to be necessary. The multipliers range from 1.11 to 1.64 in the short term and from 1.07 to 1.39 in the long term. In the ICM, the numerator is direct plus indirect cost and the denominator is direct cost. The RPE adds profit to the numerator, so the RPE is greater than the ICM. It has been argued that regulatory agencies should use and RPE that is greater than 2.0, which would imply an ICM of 1.90 or higher.

How reasonable is an RPE of 2.00 or higher? To answer this question, consider GMs financial results for 2004-08. GM is as a simple case to study, because it provides information in its annual reports on contribution costs in addition to the standard information on cost of sales. Contribution costs are closer to direct costs than are cost of sales.

5

GM's RPE multipliers for 2004-08 range from 1.44 to 1.50 using reported sales and costs. If GM had earned profits of 5 percent in these years, instead of the actual losses it incurred, the RPE multipliers would range from 1.50 to 1.58. In either the actual or the hypothetical case, GM's RPE multipliers are substantially lower than 2.00.

The indirect cost multipliers that EPA uses in the preliminary rule give sensible and fact-based guidance on how indirect costs ought to be estimated.

IV. Measuring private and public welfare impacts

Finally – with regards to measuring private and public welfare impacts

I will address interagency comments received prior to the publishing of the NPRM in the Federal Register, in the form of a suggested rewrite of Section III.H of the "Proposed Rulemaking to Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards".

In evaluating proposed regulations, the benefits and costs of the regulation must be measured against a baseline. The rewrite suggests that the baseline should be "perfectly competitive markets and perfect consumer foresight". However, according to the OMB's guidelines for economic analysis of regulations, the baseline should be the "best assessment of the way the world would look absent the proposed regulation".

Perfectly competitive markets and perfect consumer foresight do not describe the way the world looks today and are highly unlikely to describe the way the world would look in the future—with or without the proposed GHG emission standards.

Market failure can arise from externalities, market power, and inadequate or asymmetric information. And, like any market, the "market" for clean, fuel-efficient motor vehicles has many conditions necessary for market failure.

6

The most significant are inadequate information about the future and limitations in human rationality. Neither consumers nor automakers possess perfect foresight and rationality in making decisions. Calculations of welfare loss based on subjective consumer valuation are always problematic—they are difficult to estimate and difficult to justify. Using the perfect market populated by perfect producers and perfect consumers as the baseline against which gains and losses are assessed assumes that the status quo is the perfect market.

The rewrite states: "This intuition behind this conclusion is best captured by the recognition that automobile companies currently sell vehicles that already comply with the standards set forth in this rule ● ● yet many consumers choose not to purchase these vehicles." The statement is misleading.

First, while some companies may make some vehicles that meet some of the targets (since targets are set on a vehicle-by-vehicle footprint basis) – that consumers are not buying some of these vehicles does not mean they are doing so because they do not care about fuel economy. There are a host of other factors involved: **q**uality of manufacturing, cost, availability, etc.

Setting the baseline as the perfectly competitive market populated by consumers and firms with perfect foresight, and then "concluding" that GHG emission regulations result in private welfare loss is an example of a rhetorical tautology. The conclusion is already present in the assumption.

I appreciate the opportunity to testify today and would be happy to take questions.

END

7