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**Statement to the National Academy of Sciences**

**CAFE Committee**

By

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Americans for Equitable Climate Solutions (AECS) is committed to finding and promoting policies that can efficiently reduce carbon emissions both domestically and worldwide. AECS believes that the CAFE program is a poor policy instrument for combating the threat of global warming.<sup>1</sup> Indeed, AECS believes that progress toward workable climate solutions will remain impossible as long as the debate about global warming policy is confused by the noisy—but not entirely constructive—thrust and parry of the long-running CAFE controversy.<sup>2</sup>

Thus, AECS believes that the Committee’s greatest possible contribution to public policy would be to draft a report clearly explaining three crucial realities. These are:

1. Other policy options could, for any given social cost, far more significantly reduce greenhouse gas emissions than could any conceivable version of the CAFE program.
2. Politically feasible increases in CAFE standards (if there are politically feasible increases) offer little prospect for significantly reducing greenhouse gas emissions.
3. The controversy over CAFE standards is a poor context for developing national consensus on the important issues and trade-offs associated with domestic climate policy.

Some Committee members may opine that superior alternatives to the CAFE program may be hard to enact in the near future. But predictions of political feasibility are notoriously undependable. And the excessive attention paid to CAFE standards is demonstrably exacerbating the difficulty of moving toward more meaningful climate policies.

### **Several policies offer realistic prospects of efficiently reducing carbon emissions.**

Four economists at Resources For the Future developed one such proposal. Other variants have been proposed by the Heinz Center, Brookings Institution economists McKibbin and Wilcoxon, Yale University economists Nordhaus and Boyer, and entrepreneur Peter Barnes. Although differing in important details, each of these proposals shares a common structure, which would ensure highly efficient reduction in U.S. domestic carbon emissions.

These features include:

- All entities introducing fossil fuels into the U.S. economy must acquire and submit carbon emission allowances equal to the carbon content of that fuel. Because this requirement would be enforced at the point of production or import, costs of enforcement and compliance would be minimized. And almost all sources of energy-related carbon emissions would be brought under incentives to reduce emissions.

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<sup>1</sup> Several analyses, including *The Extra Mile: Rethinking Energy Policy for Automotive Transportation* by Pietro S. Nivola and Robert W. Crandall, make clear that CAFE is an inefficient policy for conserving energy. And the petroleum-based fuel that CAFE does, under some conditions, conserve is by no means the highest priority in reducing carbon emissions.

<sup>2</sup> Some proponents of CAFE may argue that it serves policy objectives unrelated to global warming. Assessing the validity of the alleged non-global warming policy objectives, or CAFE’s claimed contribution to them, is beyond the purview of AECS and outside the scope of this statement.

- Emission allowances would be obtainable in unlimited quantities from the United States Treasury for a fixed price. The price would initially be set at a quite moderate level. The price would rise very gradually, but steadily over a long period of time, providing a predictable future schedule of escalating incentives to reduce emissions.
- Some of the revenue obtained from selling emission allowances could be used to offset the income effects of higher energy prices on consumers. The requisite transfers could be effected in a number of ways. Whatever mechanism was used, however, severing the link between the price effect and the income effect of higher energy prices would attenuate the major political objection to raising energy prices.
- Some revenue might also be funneled into R&D spending to develop less carbon-intensive technologies, or revenues might be used to cushion the transitional impact on industries heavily involved in coal production and use.

All these plans share several important advantages.

- They are comprehensive, covering all sources of energy-related carbon emissions, so no inexpensive opportunities to reduce carbon emissions are missed.
- They apply evenly across all sectors of the economy, avoiding the risk of imposing unduly expensive emission cuts on some economic sectors while under-controlling emissions from other sectors where cuts would be cheaper.
- They are precisely targeted on discouraging the “bad” that society is seeking to avoid, the emission of greenhouse gasses, rather than attacking some imperfect surrogate like energy consumption or the energy efficiency of specific kinds of goods or services.
- They give both producers and consumers the appropriate economic incentives to use their ingenuity to reduce the social “bad” while still satisfying their many other legitimate economic wants and needs.

**Raising CAFE standards, unfortunately, is not among the policy options offering realistic climate solutions.**

The CAFE regulatory system has none of the above described virtues. Instead, The CAFE program suffers from a crippling list of deficiencies:

- There is an inherent mismatch between CAFE’s Lilliputian impact and the Brobdingnagian scale of domestic greenhouse gas emissions. All automobiles and light trucks (not just the new ones) still account for only about 15 percent of total greenhouse gas emissions from the United States.<sup>3</sup> Hence, the CAFE program affects only a modest percentage of total domestic greenhouse gas emissions. And as domestic greenhouse gas emissions have been growing at an average rate of

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<sup>3</sup> Draft Inventory of *U.S. Greenhouse Gas Emissions and Sinks 1990-1999*. The estimate was based on data from Tables ES-1 and 2-7. It is, however, a slight underestimate of the potential emissions occasioned by autos and light trucks because it neglects refinery emissions associated with production of gasoline and diesel fuel consumed by autos and light trucks. This omission seems unlikely to change the estimate importantly.

1.2% a year, CAFE standards would have to be constantly and rapidly ratcheted up in order to avoid being swamped by the emissions-generating effects of economic growth.

- Transportation as a sector is probably the most expensive place in which to seek greenhouse gas emission reductions.<sup>4</sup> Effective climate policy must eventually be economy-wide, not sector-specific. But if political necessity required temporarily adopting a sector-by-sector approach, transportation should be the last target, not the first.
- CAFE standards have no impact whatsoever on auto / light truck emissions unless energy prices are so low relative to CAFE standards that the manufacturers are compelled to sell a fleet more fuel-efficient than that which the customers wish to buy.<sup>5</sup>
- Beyond CAFE's impact on the sales of new vehicles, it may produce inconsistent, and indeed, perverse consequences. Thus, CAFE standards reduce the fuel cost per vehicle mile traveled (VMT), thereby quite possibly encouraging more VMT.<sup>6</sup> CAFE standards also encourage the retention in the fleet of older less fuel-efficient cars. And of course, CAFE standards have spurred the move to SUVs because the standards for SUVs are considerably more generous than those for conventional automobiles, making SUVs the vehicle of choice for consumers who desire larger, more powerful vehicles.

#### **Attempts to raise CAFE standards are a climate policy blind alley.**

For the reasons just discussed, raising CAFE standards by any politically realistic amount could do little to reduce greenhouse gas emissions, but do that little at a high cost per ton controlled.<sup>7</sup> The CAFE program was, at its inception, not intended to address climate policy. And it remains an incorrigibly weak tool for doing so.

The more fundamental problem, though, is that a new debate about increasing CAFE standards is essentially a costly distraction from the real task of developing long-term climate policy because:

1. One quite possible outcome of an effort to raise CAFE standards is a symbolic increase, i.e., an increase raising average new vehicle fuel economy by about as much as higher energy prices would have dictated even without any change in public policy. The resulting illusion of policy progress would actually impede adoption of the more substantive policies essential for real climate solutions.

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<sup>4</sup> "Effects of Differentiating Climate Policy by Sector", Babiker, Bautista, Jacoby, and Reilly of the MIT Joint Program on the Science and Policy of Global Warming, p. 9. This paper describes the results obtained by using the EPPA-GTAP model to estimate the cost of requiring equal percentage reductions on greenhouse gas emissions.

<sup>5</sup> Op. cit. Nivola and Crandall pp 28-30

<sup>6</sup> The actual effect of CAFE on driving behavior may be complex. Dr. James L. Kennedy, a member of the NAS Committee, has been kind enough to point out to the author that by raising the initial price of autos and light trucks, CAFE could, under certain assumptions, discourage their use. The same effect would occur if CAFE degraded perceived driving comfort and safety. Perhaps the only conclusion that can be stated with confidence is that the incentives created by CAFE relate ambiguously and uncertainly to energy conservation.

<sup>7</sup> AECS notes in passing that the some of the reasons that make CAFE an inefficient instrument for greenhouse gas emissions control imply that tax subsidies for more fuel-efficient vehicles will similarly entail small emissions reductions obtained at excessive social costs.

2. The CAFE debate continues to encourage some automobile manufacturers to dispute the need for public policies to curb global warming, a position that they would have little reason to espouse—and none to espouse so vociferously—were the proposed remedies actually focused on carbon emissions rather than new cars.<sup>8</sup>
3. A national debate about the cost of global warming versus the costs of buying “insurance” against it is a prerequisite of progress on global warming. But the costs of CAFE standards are effectively hidden from the general public in the price and quality of vehicles. So another row about CAFE standards will do little or nothing to forge the needed social consensus for action.
4. Tinkering with the CAFE program cannot correct its defects (which are structural). Nor can the CAFE program be “morphed” into the kind of economy-wide emissions reduction incentive system that alone carries the prospect of successful global warming policy.<sup>9</sup>
5. Instead, the CAFE program creates a precedent and model for other sectoral regulatory approaches. But a plethora of sector-specific energy efficiency regulations would be an enormously wasteful and ultimately futile architecture for climate policy.

**Conclusion: The need to transcend symbolic climate policies**

From its onset, the CAFE program has involved more political symbolism than economic or environmental substance. That prevalence of appearance over substance is now, in the context of the climate debate, more severe than ever.

The NAS Committee has a unique opportunity to advance the climate debate. To do so, it needs to:

- 1) Draw both public and congressional attention to the real solutions;
- 2) Label the CAFE program for what it is, climate policy fool’s gold; and
- 3) Explain why a debate about the CAFE program is a poor framework for developing real climate solutions.

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<sup>8</sup> This observation does not dispute that some auto companies’ responses to the challenge of CAFE and global warming have been disappointing.

<sup>9</sup> AECS takes no position on the issue of whether CAFE should be restructured in order to reduce its (occasionally) high social costs. But it is important that restructuring not be sold on the false promise that it can make CAFE into a cost-effective climate policy.