



**Incentives For Auto Manufacturers To Meet 2017-2025  
Mileage And Emission Standards Must Be Technology and  
Fuel-Neutral To Maximize Benefits, Spur Innovation And  
Increase Consumer Choice**

Office of Management and Budget (OMB),  
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## **2017-2025 MY CAFE Rules Advance U.S. Energy Security And Environmental Goals, But Manufacturing Incentives Must Be Properly Aligned**

- ACSF applauds new fuel-efficiency and GHG tailpipe emission standards proposed by NHTSA and EPA.
- Adoption of new CAFE rules would be largest single step Obama Administration has taken to reduce oil use and curb GHG emissions.
- However, scheme to add “compliance flexibilities” for manufacturers that produce selected low emission, high mileage vehicles is not flexible, cost-effective or innovative because it is not fuel-neutral and excludes NGVs.

**“When incentives are badly aligned, it is appropriate for government to try to fix the problem by realigning them.”**

Richard Thaler and Cass Sunstein, *Nudge* (Rev. Ed. 2009) p. 187.

**“One of our main efforts in recent years has been to go beyond sound bites and slogans and to focus on evidence and data – to ensure that regulation is empirically informed, that relevant uncertainties are acknowledged, and that sensible tradeoffs are made.”**

Cass Sunstein, “Regulation in an Uncertain World,”  
National Academy of Sciences, June 20, 2012

# The Scheme for Manufacturing Credits Violates Established Principles of Regulatory Law and Policy

## Administrative Procedure Act (APA):

Bars arbitrary and capricious rules; there must be a rational nexus between facts in the record and the agency's regulatory choices.

## EO 13563:

Regulation must protect “public health, welfare, safety and our environment while promoting economic growth, innovation, competitiveness and job creation.”

Consequently:

- Regulatory choices must maximize net benefits.
- Performance objectives are favored over behavioral mandates.
- Agencies must craft rules that “promote innovation” and “maintain flexibility and freedom of choice for the public.”

# Defects of Current Manufacturing Credits

- Program arbitrarily selects only two powertrain-fuel technologies (EVs and FCVs) for “temporary regulatory incentives” to surmount “market barriers” because they “represent potential game-changers ... [for] controlling transportation GHG emissions.”
- However, EPA’s choice of technologies (and exclusion of others -- e.g., NGVs) is not supported by a cost/benefit analysis or other quantitative analysis to show a causal link between the proposed regulatory incentive and (a) the removal of market barriers or (b) “game changing” reductions in GHG emissions.
- Neither the Draft Regulatory Impact Analysis (over 300 pages) nor Draft Joint Technical Support Document (over 440 pages) contains backup for EPA’s market barriers assessment; nor do they show that the expected benefits for incentives outweigh reported costs (i.e., 4% -5% increase in program-wide emissions; 80–110 million metric tons of GHG).\* Moreover, neither document looks at alternative low emission/oil saving technologies (such as NGVs) in comparison to EVs/FCVs.

\* The general cost-benefit analysis in the NPRM also fails to include any quantified benefit/cost analysis of the proposed regulatory incentives for manufacturing incentives. See e.g., 76 FR 75142-49.

## Defects of Current Manufacturing Credits (cont'd)

- NGVs are a more cost effective technology to reduce GHG emissions (per gram/mile)\*

Model	LEAF EV vs. gasoline LEAF	Honda Civic NGV vs. gasoline Civic
GHG Emissions g/mi	Tailpipe = 0 Upstream = 161 Total = 161 (versus 252 for gasoline LEAF)	Tailpipe = 210 Upstream = 42 Total = 252 (versus 306 for gasoline Civic)
Cost Premium For EV/NGV Technology	\$27,628	\$6,935
<p>EV LEAF has 91 g/m lower GHG emissions than gasoline LEAF, which costs \$304 g/mi (\$27,628/91)</p> <p>By comparison, Honda's NGV Civic has 54 g/m lower GHG emissions than gasoline Civic, which costs \$128 g/m (\$6,935/54)</p>		

\*Note: For data sources and a more extended analysis, see joint AGA/ANGA Comments in Docket ID Nos. EPA-HQ-OAR-2010-0799 et al., February 13, 2012, pp 6-8.

## Defects of Current Manufacturing Credits (cont'd)

- NGVs, like EVs/FCVs, also displace the lifetime oil use of comparable gasoline powered vehicles.
- NGVs have other large *public* benefits, estimated at over \$4,400/vehicle for pick-up trucks and \$2,200/vehicle for sedans.\*

\*See "Leveling The Playing Field For Natural Gas in Transportation," by Christopher R. Knittel, The Hamilton Project (Brookings Institution), Discussion Paper 2012-03, June 2012.

## **Major auto manufacturers want more flexible, technology-neutral incentives to produce high mileage, low-emission vehicles**

- Chrysler**: “Chrysler recommends that dedicated and extended range natural gas vehicles receive at least the same multipliers as electric vehicles ...”
  
- Ford**: “Ford supports providing multipliers for natural gas fueled vehicles ...”
  
- VW**: “Volkswagen proposes that the agency expand the assortment of technologies credited within the program.”



# ARPA-E Program to Surmount NGV Market Barriers

- New \$30 million ARPA-E grant program announced in February 2012 (MOVE – Methane Opportunities for Vehicular Energy). Designed to remove market barriers by developing low-cost home refueling technologies and lighter, cheaper CNG fuel tanks.
- By 2017, affordable “brand name” – home refueling appliances will be on market, providing garage-based CNG refueling for 65 million homes connected to gas pipelines.

# 2012 National Petroleum Council (NPC) Study on America's Transportation Future

“With a sustained significant fuel price differential between oil and natural gas, driven by relatively low natural gas prices in the United States, the benefits from natural gas may be larger, earlier, and faster than alternative technologies.”

\* \* \*

“As higher vehicle purchase price premiums are a primary barrier to market expansions, creating sufficient demand to migrate to fully OEM produced vehicles would be expected to result in cost improvements from today's low volume 'final vehicle modifier' approach.”

NPC Future Transportation Fuels Study Final Report, Fuel and Vehicle Systems Analysis, Natural Gas Analysis, p. NG-1 (2012) (emphasis added)

Available at: <http://www.npc.org/FTF-80112.htm>

## **Align-Manufacturing Incentives To Showcase Smart Regulation and Promote Innovation, Competition and Consumer Choice**

- Make pool of manufacturing incentives open to all alternative-fuel vehicles with lower emissions and large potential to displace gasoline vehicles. Apply multiplier (or divisor) to encourage production.
- Pool should incentivize alternative fuel (and dual fuel) vehicles until annual sales reach 10% of total sales for all fleets combined (i.e., 1.5 million vehicles in 2017). Then phase down incentive by 2% per year.