



Setting Strong Standards MY2017-2025

STANDARDS MUST DELIVER REAL OIL SAVINGS & POLLUTION REDUCTIONS

Strong standards must deliver significant oil savings and pollution reductions. A 6 percent per year standard will result in the greatest savings to consumers, new jobs created, and technology innovation. Standards must be strong in each year and must avoid compliance loopholes, which erode the integrity of the program.

Weak Standards in the Early Years Sets the Program Up For Failure

Setting weak standards in the early years and playing catch-up at the end is a recipe for a failed program given the planned mid-program review and the ability of automakers to borrow compliance credits from the future.

- **A slow start to the program fails to spur innovation and would actually require the automakers to do less on weight reduction, hybrids and plug-in vehicles than they are already planning.** For example, a standard that delivered an average of 44 mpg-equivalent by 2021 would require less than 10 percent market share of hybrids, no plug-ins, and less than a 10-15 percent weight reduction.ⁱ In contrast, by 2020 Ford projects that 25 percent of their new vehicles will be hybrids or plug-insⁱⁱ and that they will cut weight by 10-15 percent.ⁱⁱⁱ
- **A slow start to the program more than doubles the cost to automakers in the final 4 years of the program.** Automakers would provide consumers about \$650 in clean car technology to reach 44 mpg-equivalent during the first five years of the program, and would then have to add \$1,600-\$2600 during the last four in order to reach 56-62 mpg equivalent.^{iv}
- **Credit borrowing allows the companies to do even less, setting automakers up to deliver as little as a 3-4 mpg-equivalent improvement over the first five years.** But to catch up, automakers would have to add \$2,000-\$3,000 worth of technology to new cars and light trucks over just 4 years to deliver an 18-24 mpg-equivalent jump to meet a 5-6 percent per year standard.^v

A/C Credits and EV Accounting Significantly Reduce Benefits

The oil savings and pollution reductions are significantly reduced when just air-conditioning (A/C) credits and 0 g/mi accounting for electric vehicles are taken into account. Assuming air-conditioning credits of 20 grams/mile and electric drive vehicle sales of just 5-9 percent of the market in model year 2025:

- **The benefits of a 6 percent per year scenario are reduced down to that of a 4-4.5 percent per year scenario – resulting in on-road fuel efficiency as low as 37 mpg for conventional vehicles in 2025.**
- **The benefits of a 5 percent per year scenario are reduced to as little as those from a 3.3 percent per year standard - resulting in on-road fuel efficiency as low as 34 mpg for conventional vehicles in 2025.**

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Impact of AC Credits and 0 gram per mile upstream emission credit with 5-9% Electric Vehicle Sales											
Annual GHG Reductions Standard (%/yr)		2025 MPG equivalent		All Vehicles			Gasoline Only Vehicles (91-95% of new vehicles in 2025)			Benefits	
				2025 CAFE Value (mpg)	Window Label Value (mpg)	Actual GHG reductions (%/year)	2025 CAFE Value (mpg)	Window Label Value (mpg)	Actual Fuel Consumption Reduction (%/yr)	Oil Savings in 2030 (mbd)	Cumulative GHG Reductions by 2030 (BMT)
5%	56	50	37	4.3 - 4.6%	46-48	34-35	3.3-3.7%	1.9	2.8		
6%	62	55	40	5.2 - 5.6%	50-52	37-38	4-4.5%	2.4	3.3		
2016 Standard	35.5	34.1	26								

Note: Assumes a range of 5% to 9% EV new vehicle sales in 2025 and AC credits of 20 grams/mile

The benefits of the program are eroded even further when additional loopholes and credits are included. Under the 2012-2016 standards, A/C and EV credits were augmented by credit averaging, banking, and trading; temporary lead-time allowances; deferrals for small-volume manufacturers; flexible fuel and alternative fuel vehicle credits; and off-cycle technology credits, among others. Packaged together, these credits can **substantially** reduce the benefits and effective stringency level.

Strong Standards are Affordable: Consumers Start Saving Money the Moment They Drive off the Lot

From the moment new car owners drive off the lot, monthly gasoline savings more than offset higher monthly car payments – even under a 6 percent per year scenario. After the loan is repaid, savings at the pump for the vehicle’s lifetime go entirely to the consumer.

Assuming 20 grams-per-mile of A/C credits are employed by manufacturers, a vehicle meeting the 6 percent per year scenario’s 2025 average would:

- Deliver 55 mpg on CAFE tests and 40 mpg on the road, compared to today’s 22 mpg on-road average for new vehicles.
- Provide monthly fuel savings of \$97, at a gasoline price of \$3.75/gallon.^{vi}
- Increase the monthly loan payment by \$68 over a new car today (assuming 5-year, 5% APR loan).

The 6 percent per year standard would save consumers money from the very first month of the loan.

ⁱ The Interim Joint Technical Assessment Report by EPA, NHTSA, and CARB, Sep. 2010, (TAR 2010), demonstrated that compliance with a 47 mpg-equivalent standard was attainable with a 15% mass reduction, 11% hybrid electric vehicles and no plug-ins.

ⁱⁱ Wired News, “Ford to Triple Hybrid Production, Introduce Plug-In”, June 9, 2011. <http://www.wired.com/autopia/2011/06/ford-c-max-hybrid-c-max-energi/>

ⁱⁱⁱ Bloomberg Markets Magazine, “Mulally Gives Ford Lightness Lead after Threat to End Explorer”, Feb 6th, 2011. <http://www.bloomberg.com/news/2011-02-07/mulally-makes-ford-leader-in-lightness-after-threat-to-terminate-explorer.html>

^{iv} Based on the costs associated with reaching 56 mpg-equivalent and 62-mpg equivalent under “Path B” in TAR 2020.

^v Current averaging, banking and trading (ABT) provisions allow automakers to borrow credits up to 3 model years in to the future and carry a deficit for a maximum of 4 years. Estimates are based on automakers meeting credit requirements in the first 2 years of the program, borrowing credits for the following 3 consecutive years, then making up for credit deficits in following years of the program

^{vi} 2008 dollars.

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