

# Autofacts<sup>®</sup>

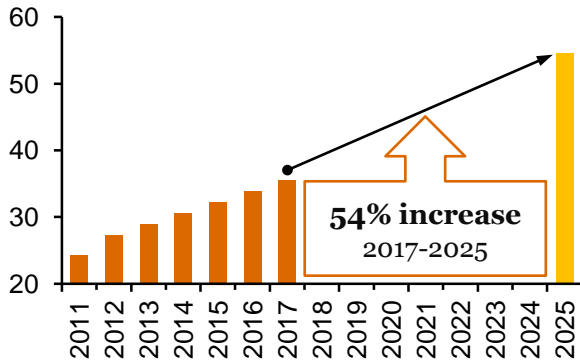
September 2011

## The Green Mile(s)

### Policy push to clean the US vehicle fleet

While economic uncertainty continues to dominate headlines, the US auto industry is making quiet, but significant investments in technologies that will power future generations of vehicles. Boundless innovation and cross-sector collaboration will be key to meeting future emission standards.

US: Corporate Average Fuel Economy Standards  
2011 – 2025 model year (miles per gallon)



#### Tough new standards

The 2009 announcement of a new Corporate Average Fuel Economy (CAFE) standard of 35.5 miles per gallon (mpg) for the 2017 model year (MY) was met with mixed reaction. Some critics felt that the legislation did not go far enough to boost fuel economy and reduce CO<sub>2</sub> emissions, while others believed it impractical for legislators to impose a difficult new benchmark during the depths of the financial and auto industry crises.

Fast forward to 2011. Still faced with global economic uncertainty, the US auto industry is forging ahead with a new 54.5 mpg target by the 2025MY. However, like the previous standard, this figure is somewhat deceptive. Embedded in the new regulation are various credits for items like the adoption of electric and fuel cell vehicles, hybridisation of pickups, and CO<sub>2</sub> reduction via HVAC improvements. Nonetheless, 54.5 mpg (fleet wide average) is an aggressive target.

While the 2017MY CAFE standard represents a 30% increase from the 2010 average, the 2025MY standard equates to a staggering 54% upgrade from the 2017MY target. To meet an increase of this magnitude, new ground must be broken. While the industry will rely almost exclusively on existing technologies such as hybrids, direct injection, and turbocharging to achieve the 2017MY goal, advancement of current technologies combined with radical innovations will be necessary to reach the 2025MY proposal.

New regulations for Medium & Heavy Duty Vehicles (MHDVs) should also be factored into today's regulatory discussion. Passed in August 2011, the US government made its first effort to set emission standards for MHDVs. With a diversity of vehicle types within the segment: school buses, tractor trailers, commercial trucks, etc., this program represents an important step toward reining in total emissions.

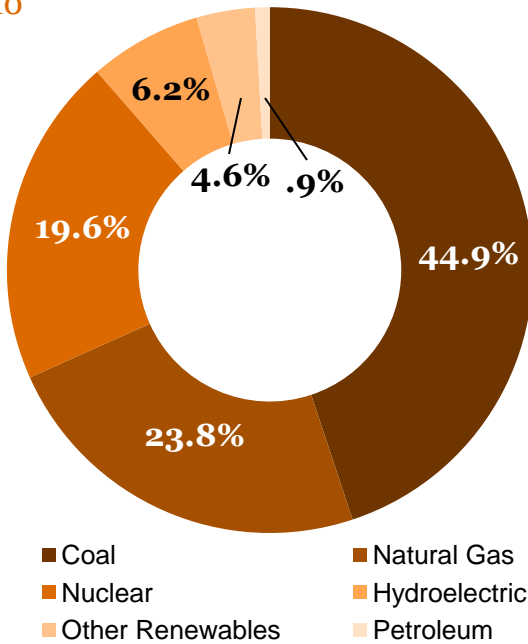
#### The road ahead

Large-scale investment is expected along with increased collaboration between government and the automotive, energy, utilities, and technology sectors. Financial and environmental projections aside, the long-term benefits of US emissions regulation will be measured by the ability of these entities to bring cost-effective, sustainable solutions to the mainstream. In addition to policy requirements, market forces like intensifying demand for renewable energy sources, an advanced power grid, and a smarter fleet of next-generation vehicles will help drive the active reduction of automotive emissions.

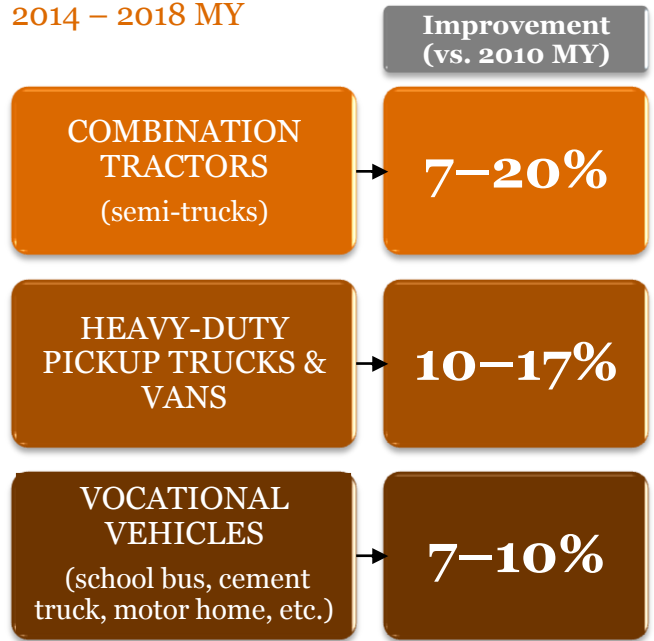
## Analyst Note

**The US still lacks a comprehensive national energy policy to promote greater penetration of safe and clean energy. While production of various alternative fuel vehicles will continue to increase (as medium and heavy duty standards are concurrently enacted), the net carbon reduction benefit will ultimately be determined and limited by their power sources.**

US: Net Generation by Energy Source  
2010

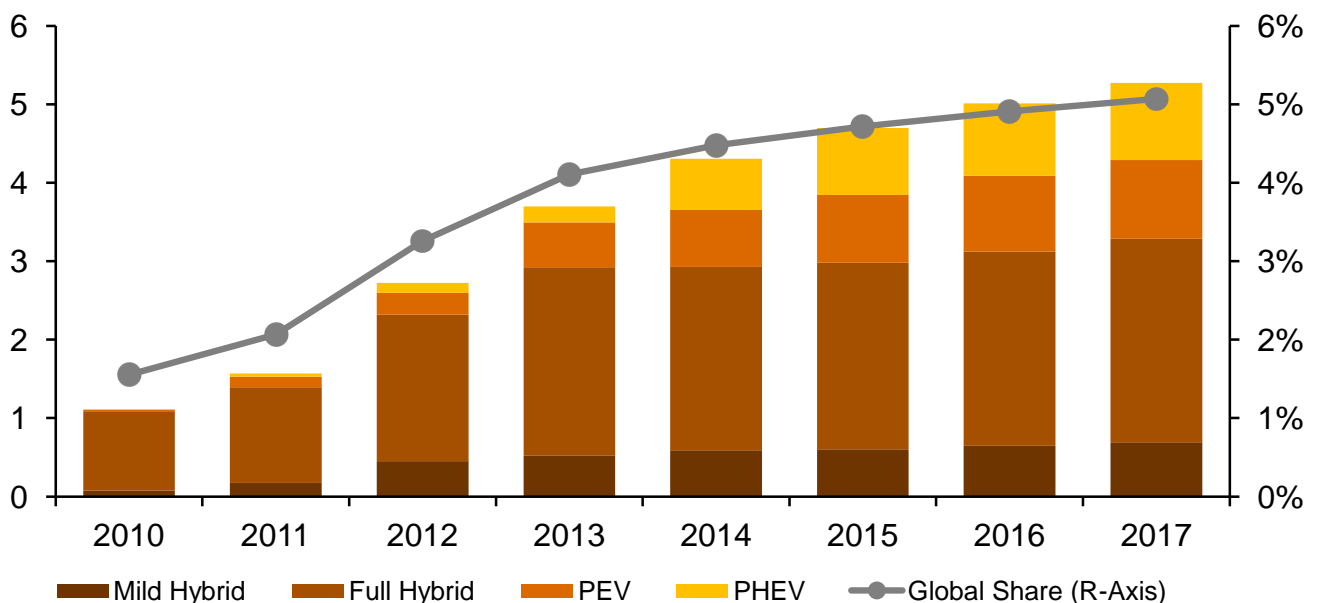


US: MHDV Emission Reduction Standards  
2014 – 2018 MY



Global: Hybrid + EV Assembly Forecast\*

2010 – 2017 (millions) \*Hybrid = Mild + Full, EV = Plug-in + Pure Electric



Source: EIA, EPA, NHTSA, Autofacts 2011 Q3 Data Release

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