



Perspectives on EPA / NHTSA Revisions to the Fuel Economy Label

Luke Tonachel

Senior Analyst, Transportation Program

Natural Resources Defense Council

EPA MSTRS Meeting, Ann Arbor, October 5, 2010

NRDC Preferred Approach



- Prominent letter grade system
 - Single scale for all cars and trucks
- GHG basis for comparison across all technologies
- Clear operational cost impacts
- Include fuel consumption metric

EPA
DOT
Fuel Economy and
Environmental Comparison



Smartphone



The above grade reflects fuel economy and greenhouse gases. Grading system ranges from A+ to D.

[website.here](#)

Over five years, this vehicle
saves \$5,700 in fuel costs compared to the average vehicle.

🚗 **Dual Fuel Vehicle: Plug-in Hybrid Electric** 🔌

Blended Electric+Gas (first 50 miles only)		Gas Only		Blended & Gas Only Combined	
eGallons/100 Miles	Combined MPGe	Gallons/100 Miles	Combined MPG	CO ₂ g/mile (tailpipe only)	Annual fuel cost
1.5	65	2.7	38	137	\$855

10 Worst
53
103 Best

350 Worst
137
0 Best

1 Worst
8
10 Best

Combined MPGe **CO₂ g/mile** **Other Air Pollutants**
 • Fuel economy for all midsize station wagons ranges from 18 to 75 MPGequivalent. MPGequivalent: 33.7 kW-hrs = 1 gallon gasoline energy.
 • Annual fuel cost based on 15,000 miles per year at \$2.80 per gallon and 12 cents per kW-hr.

Visit [website.here](#) to calculate estimates personalized for your driving, and to download the Fuel Economy Guide (also available at dealers).





Advantages to Preferred Approach



- **Simplicity**
 - Letter grade system promoted by expert panel because everyone understands it.
 - Provides a full view of choices by putting all vehicles on the same rating scale.
 - Boils down complex information so it can be factor early in the buying process.
 - Operational cost: ‘save’ vs. ‘spend’
- **Fair assessment**
 - GHG basis for rating shows environmental impact while also being applicable across technology
- **Promotes clean technologies**

Hybrid and Plug-in Models Ramping Up



Number of Electric Vehicle Models Introduced or Expected to be Introduced in U.S. Market

Vehicle Type	Already in Market	Total by Model Year 2015
Conventional Hybrids	22	52
Plug-in Hybrids	0	18
Battery Electrics	1	32
Fuel Cell Vehicles	0	6
Total	23	108

Source: Alan Baum & Associates, Sept 2010, <http://baum-assoc.com/EVForecast.aspx>.

- Clear need to address advanced technologies
- Differentiation could help sales of new technologies

Consumers Shop Across Vehicle Types

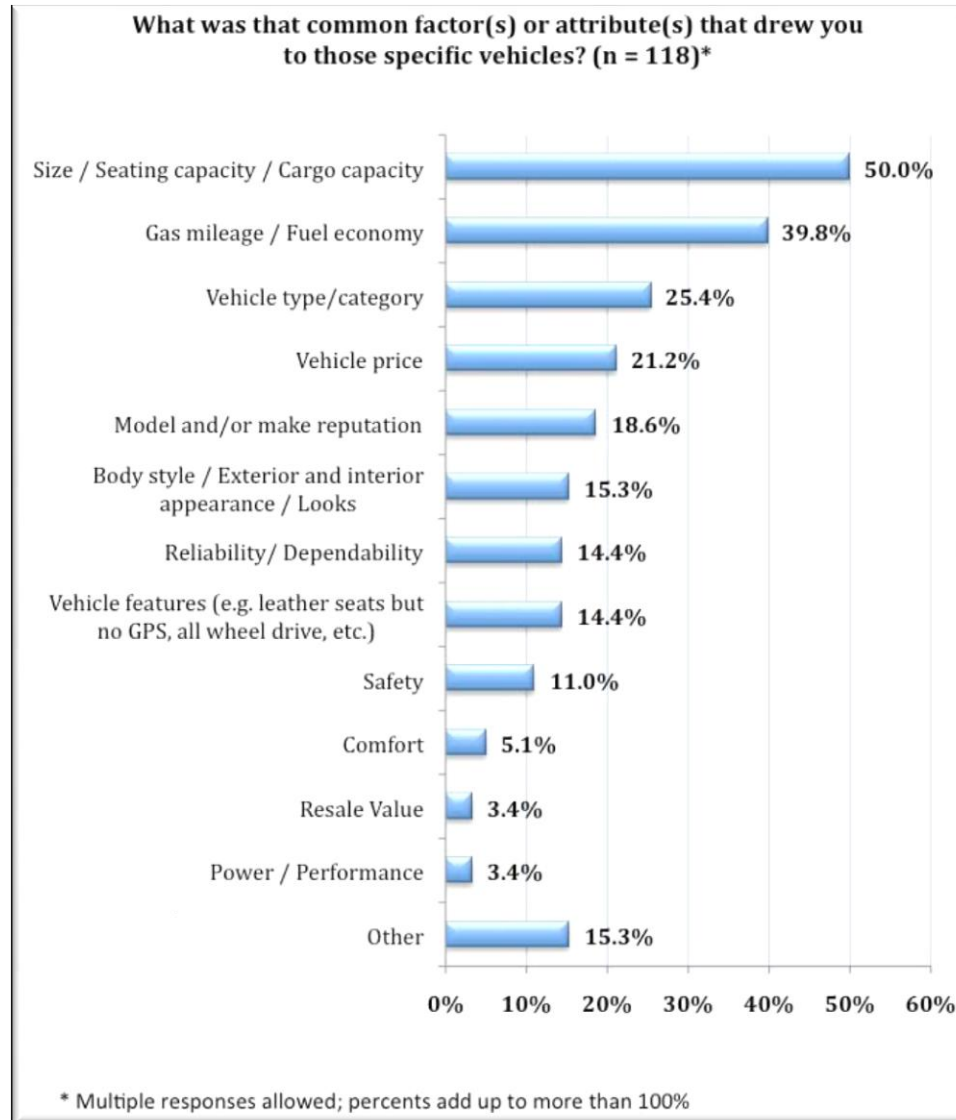


- **EPA Pre-Focus Group Survey**
 - ***“Most considered more than one vehicle and shopped across vehicle types”***
 - ***“More than half (53.6%) compared two to three vehicles before making their final decision...”***
 - ***“...when it came to the types of vehicles seriously considered, more than three-fifths (62.8%) considered more than one vehicle type, with a third (32.9%) considering two vehicle types and another fifth (19.7%) considering three vehicle types.”***

Survey: Consumers Focus on Size/Capacity and Fuel Economy



Top Attributes



Source: EPA, Fuel Economy Label Pre-Focus Groups Online Survey Report, EPA-420-R-10-907, August 2010

Potential Vehicle Choices within a Footprint



Models Footprint: ~43.5 ft²	MPG (Adj. Composite)
Toyota Prius (car)	49.4
Ford Escape Hybrid (truck)	32.0
Mazda3 (car)	24.6 – 28.9
Ford Escape (truck)	25.0 – 20.4
Mitsubishi Eclipse (car)	19.8 – 23.7

Models Footprint: ~48.0 ft²	MPG (Adj. Composite)
Lexus RX 450h (truck)	28.7 – 29.4
Mazda6 (car)	21.0 – 25.4
Volvo XC 60 (car)	18.5 – 21.3
Mitsubishi Endeavor (truck)	17.2 – 18.4

Summary



- Single scale for all vehicles is crucial
 - Enhances usability by demonstrating the spectrum of choices, independent of vehicle type
- Letter grade system is key for simplicity
 - Easy to understand, the letter grade enables efficiency and pollution to be a large factor early in the buying process
 - Early shopping process enhanced with operational cost ‘save’ or ‘spend’
- Together, these attributes serve to promote broader commercialization of advanced, clean technologies that are increasingly being developed, providing an opportunity to leading manufacturers.