Fuel Economy Guide and Fueleconomy.gov Website

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Project ID TI056

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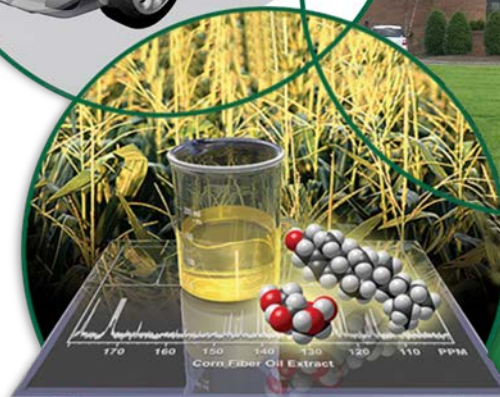
OVERVIEW

Timeline

- Annual, FY project

- *Fuel Economy Guide* published annually since 1975

- Fueleconomy.gov started 1999

Budget

- VTO

- FY14: $1.9M

- FY15: $1.85M

  ~ $1.5M for FE.gov and *FEG* activities

  ~ $350K for FE related outreach, interactions with mainstream and auto media, partnership with PBS/MPT, other activities

Barriers Addressed

- Availability of AFVs, electric drive vehicles, and fuel efficient vehicles

- Consumer reluctance to purchase new technologies

- Consumers lack confidence in official MPG estimates and undervalue potential savings associated with fuel efficient vehicles

- When gas prices are low, consumers and the media pay less attention to FE—but it becomes critical when gas prices are high

Partners

- DOE Clean Cities

- ORNL (Project Lead)

- University of Tennessee

- EPA, NHTSA, and Edmunds.com

- NREL and ANL

- NADA

- PBS/MPT (*MotorWeek*)

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PROJECT RELEVANCE

- **Fulfills DOE's <u>statutory responsibility</u> to provide FE information to the public (49 USC 32908, 2006).**
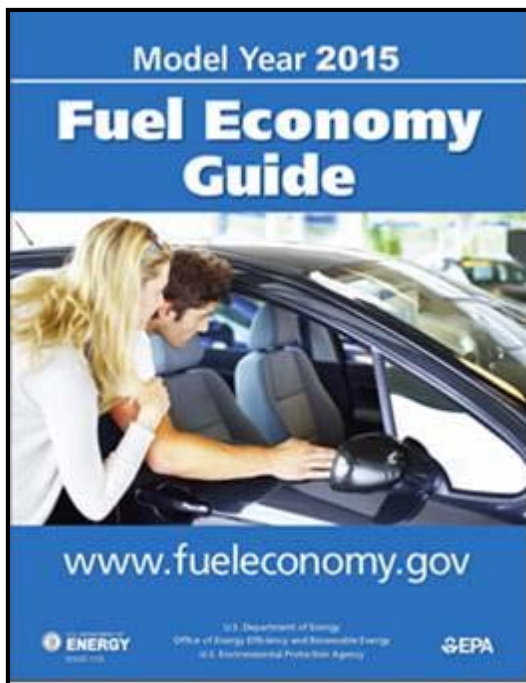
- **Objectives (FY15 AOP):**

  - **Promote consumer interest in FE and advanced vehicle technologies to <u>reduce dependence on petroleum</u> and promote use of clean energy alternatives.**

  - **Update, improve, and promote FE.gov and FE.gov/m and produce/distribute *FEG*.**

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PROJECT RELEVANCE

Addresses specific barriers identified in *VTO's Multi-Year Program Plan 2011–2015*:

- **FE estimates, fuel cost estimates, GHG emissions, safety ratings, and other data for all <u>AFVs and electric drive vehicles</u> available in the U.S. since MY 1984.**

- **"How it works" descriptions and animations address <u>consumers reluctance to purchase new technologies</u>.**

And other barriers:

- **Consumers lack confidence in official MPG estimates and undervalue potential savings associated with fuel efficient vehicles.**

- **When gas prices are low, consumers and the media pay less attention to FE—but it becomes critical when gas prices are high.**

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PROJECT APPROACH: MILESTONES

FY14

- **Published/distributed 2014 *FEG***

- **Updated FE.gov with new vehicle models and other data for 2014 vehicles and early 2015 vehicles**

- **Implemented "responsive design" on FE.gov to enhance appearance, usability, and function across platforms (computers, tablets, and mobile devices)**

- **Coordinated production/distribution of six full-length MotorWeek segments**

FY15

- **Published/distributed 2015 *FEG***

- **Updated FE.gov with new vehicle models and other data for 2015 vehicles and early 2016 vehicles**

- **Implementing mobile device app for Find-a-Car**

- **Coordinating production/distribution of six full-length MotorWeek segments**

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PROJECT APPROACH

- **Develop/publish annual *FEG***

- **Continually maintain/update FE.gov**

- **Continually upgrade existing tools, develop new tools, and update gas mileage tips on FE.gov**

- **Provide web developers access to FE.gov database through "Web Services" feature and widgets**

- **Conduct focus group research and usability testing to improve FE.gov**

- **Promote FE.gov to automotive and consumer media**

- **With PBS/MPT, produce *MotorWeek* segments on FE, AFVs, electric drive vehicles, and other topics relevant to Clean Cities**

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ACCOMPLISHMENTS AND PROGRESS

- **2015 *FEG*: to >33,000 new car dealers, >20,000 public libraries, and >20,000 credit unions; 125,000 copies to GPO for distribution; available on-line at FE.gov.**

- **FE.gov hosted >49.7M user sessions in MY14, second highest ever (MY13 still highest with >58 million). Hosted >350 million users sessions since 1999.**

- **FE.gov cited in >2,500 media articles/blog posts since 2013.**

Traffic on www.fueleconomy.gov by Model Year

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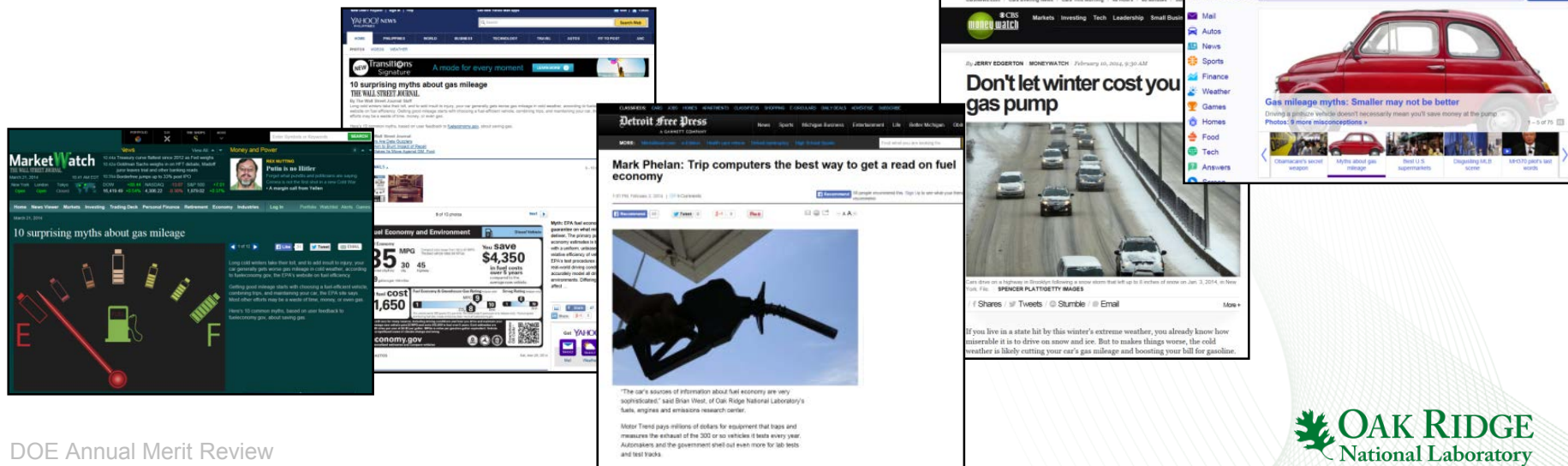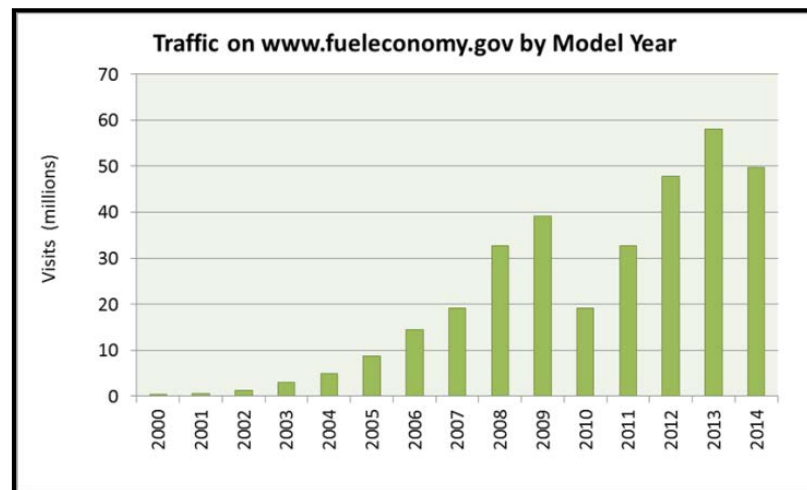
ACCOMPLISHMENTS AND PROGRESS

- **"Find And Compare Cars" most popular section on FE.gov**

- **Consumers looked up FE and GHG emissions for >200M vehicles in 2014.**

- **Updated "Compare Side-by-Side" to be more like EPA/DOT label and better address electric drive vehicles.**

  - **Driving range now available for all vehicle types and calculated to be consistent EPA's range values**

  - **PHEV MPG values tied to the range graphic**

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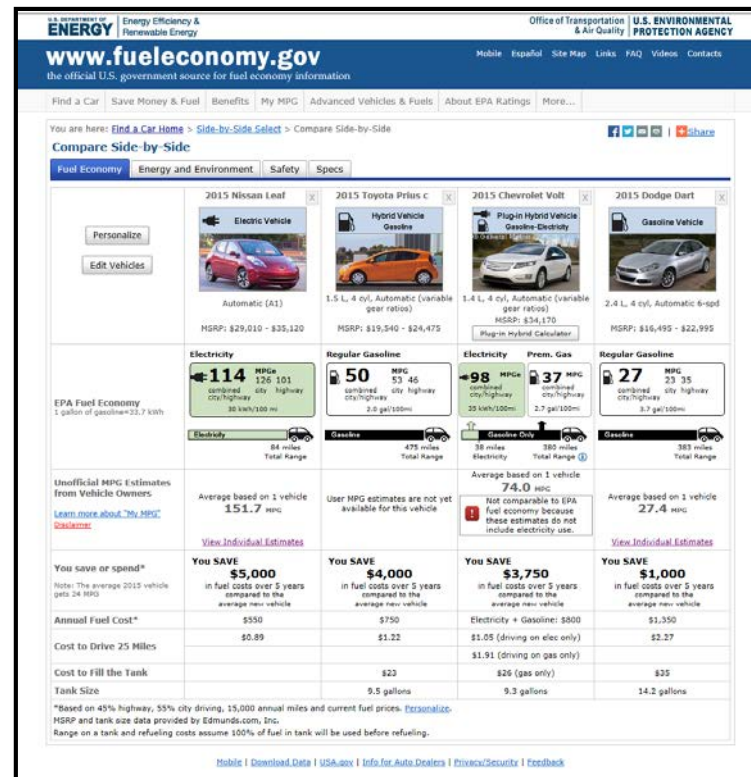
ACCOMPLISHMENTS AND PROGRESS

- ## Implemented "Used Car MPG Label"

  - **User creates electronic graphic for on-line ads and paper label for vehicle window sticker. Available for all cars and light trucks sold in the U.S. since 1984.**

  - **Shows EPA FE estimate (city, highway, and combined) and CO_2 emissions for vehicle when new.**

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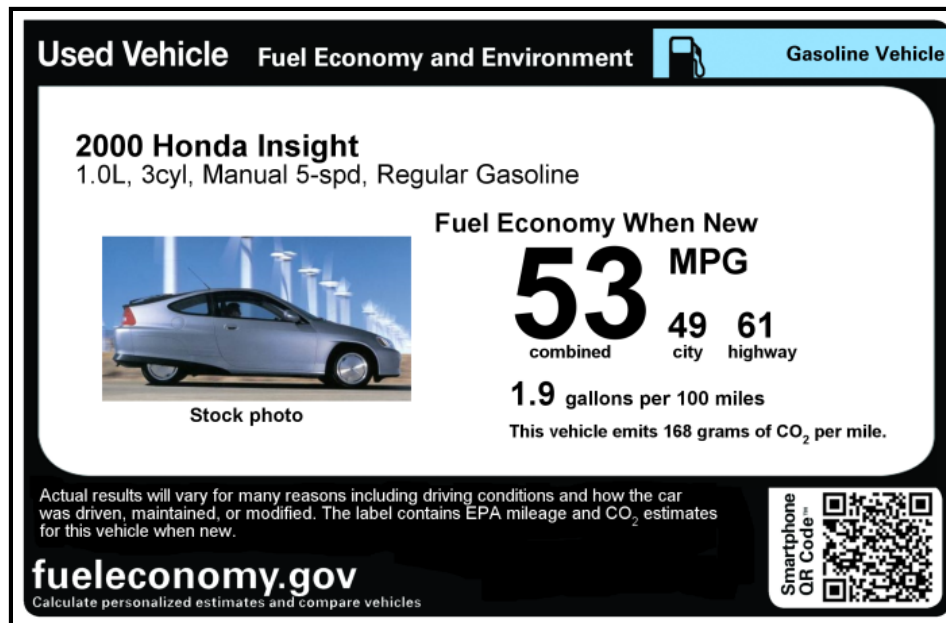
ACCOMPLISHMENTS AND PROGRESS

- **Update "My MPG"**

- **Users calculate, track, and view their real-world MPG**

- **>32,000 drivers have shared data for >45,000 vehicles**

- **Users compare their MPG with EPA MPG and MPG shared by other drivers**

- **Enter My MPG data from home or at the pump with smartphone**

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ACCOMPLISHMENTS AND PROGRESS

- **Hybrid and PHEV calculators and animations**

  - **"Can a Hybrid Save Me Money?" and "My Plug-in Hybrid Calculator"**

  - **Users can personalize information (will a hybrid or PHEV save me money?)**

  - **"How" Animations**

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ACCOMPLISHMENTS AND PROGRESS

- **Update "My Trip Calculator"**

- **User sets city/highway % and selects up to 3 cars for comparison.**

- **Calculator displays EPA MPG estimate (or user's MPG estimate), national average fuel price (or user's actual fuel price), amount of fuel used, and cost of fuel used.**

- **Future upgrades could include PHEVs and EVs.**

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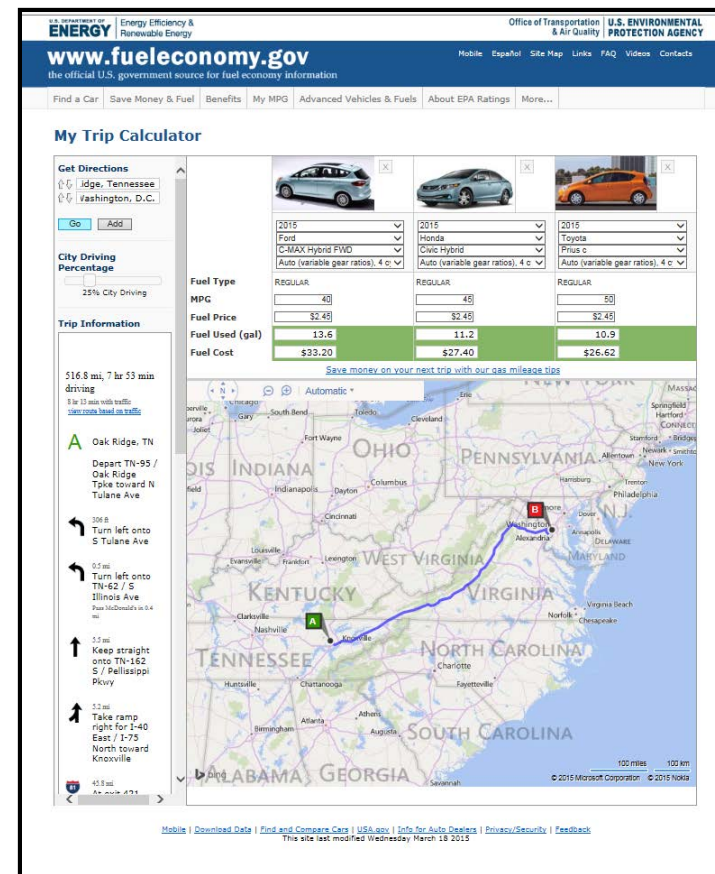
ACCOMPLISHMENTS AND PROGRESS

- **Add/update "Gas Mileage Tips" especially for hybrids, PHEVs, and EVs**

- **Drive more efficiently (including Speed vs. Fuel Economy "speed penalty" calculator)**

- **Keep your car in shape**

- **Plan and combine trips**

- **Choose a more efficient vehicle**

- **Tips for hybrids, PHEVs, and EVs**

- **Tips for cold and hot weather**

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ACCOMPLISHMENTS AND PROGRESS

- **Update information on GHG emissions and climate change**

- **Reduce Climate Change page**

- **Find-a-Car provides both tailpipe and upstream GHG emissions estimates**

- **"Beyond Tailpipe" GHG Emissions Calculator for EVs/PHEVs**

- **Find-a-Car features EPA SmartWay Vehicles**

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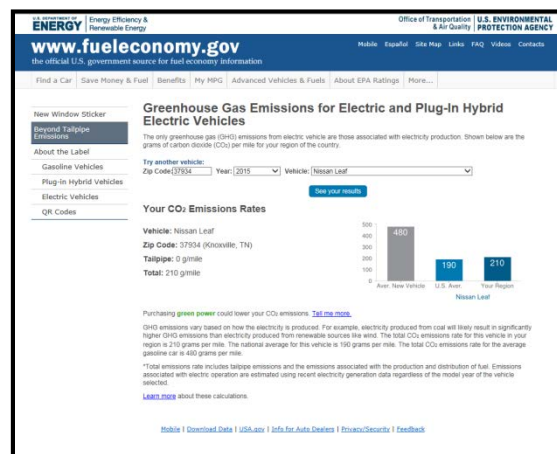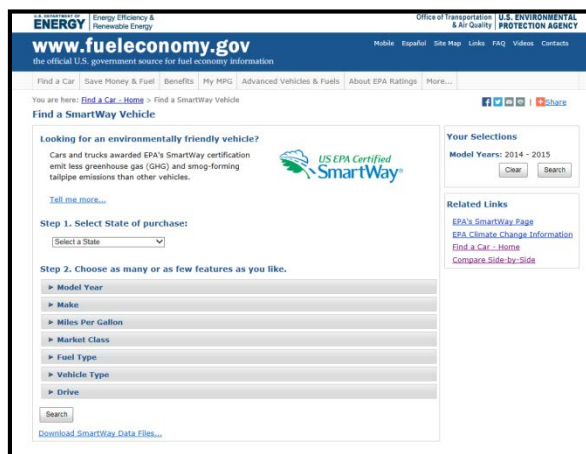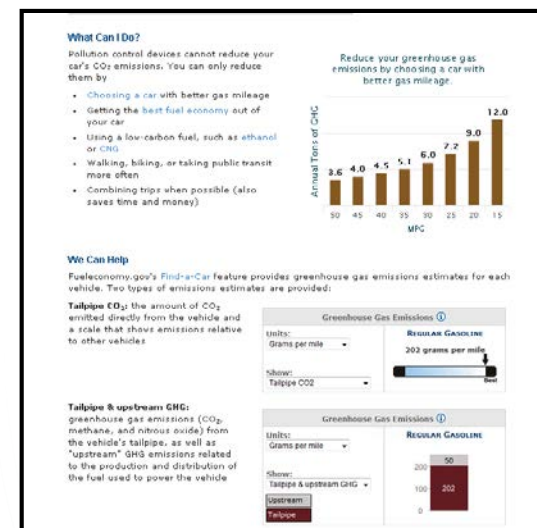
ACCOMPLISHMENTS AND PROGRESS

- **Estimating impact on petroleum consumption: begin with visits to FE.gov and *FEGs* distributed; supplement with data on media coverage (number of stories, distribution, etc.).**

- **Apply conservative assumptions about how use of FE.gov and *FEG* and media coverage affects consumer behavior and outcomes (because we lack complete information needed to link activities to petroleum consumption).**

- **We estimate that *FEG,* FE.gov, media coverage, etc. have helped consumers save >1B gallons of petroleum (preliminary estimate: 168M gallons for 2014).**

Estimated Fuel Savings of Fuel Economy Information Program

*Estimates for 2014 are preliminary

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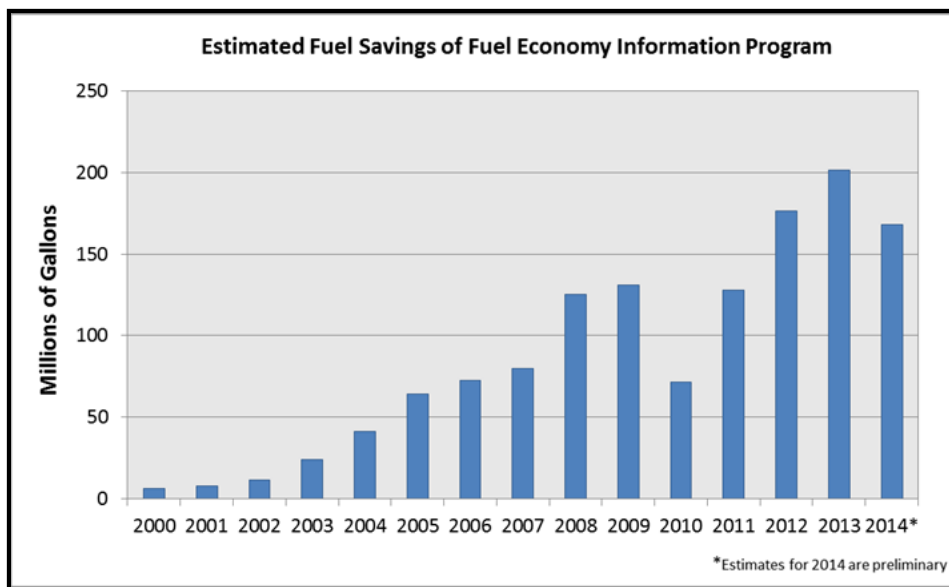
RESPONSES TO PREVIOUS YEAR REVIEWERS' COMMENTS

This project was not reviewed in 2014

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COLLABORATION AND COORDINATION AMONG PROJECT TEAM

- **DOE Clean Cities: funding, project guidance and oversight, suggestions and feedback on new products and tools**

- **ORNL and UT: develop, publish, and distribute *FEG*. EPA provides FE data. NADA distributes *FEG* to new car dealers**

- **ORNL and UT: maintain and update FE.gov. EPA provides FE and emissions data. NHTSA: safety ratings. Edmunds.com: MSRP and tank size data. NREL: information from AFDC. ANL: information related to GREET model and idle reduction**

- **ORNL and PBS/MPT collaborate on *MotorWeek* segments; posted on YouTube by NREL and distributed by Clean Cities**

PETROLEUM REDUCTION POTENTIAL AND PROPOSED FUTURE ACTIVITES

- Continue *FEG*, FE.gov, media outreach, *MotorWeek*, etc.

- Develop "Fuel Economy Tool Kit" with existing tools on FE.gov and AFDC and new tools as developed

- Public service ad campaign (Ad Council?) on FE? Reach much larger and more diverse consumer audience

- U.S. market for <u>used</u> vehicles much larger than market for <u>new</u> vehicles (~ 42M used sold vs. ~15.3M new sold in 2013 per *Ward's Automotive* 2015)

  - Expand efforts to provide used car FE data (1984 to present) and Used Car MPG Label to auto dealers and on-line car sites (eBay Cars, AutoTrader.com, CarMax.com, etc.)

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PETROLEUM REDUCTION POTENTIAL AND PROPOSED FUTURE ACTIVITES

- **Consumers lack confidence in official MPG estimates.**

  - Develop "Personalized MPG Calculator" for estimates based on actual drive cycle data recorded using on-board diagnostic (OBD) systems.

- **Consumers still rely on FE.gov, but increasingly access it via mobile devices.**

  - Continue "responsive design" on FE.gov to improve appearance and function on all devices, especially smartphones and tablets.

  - Develop mobile apps for most popular sections, starting with Find-a-Car and My MPG.

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PETROLEUM REDUCTION POTENTIAL AND PROPOSED FUTURE ACTIVITES

- **When gas prices are low, consumers and media pay less attention to FE—but it becomes critical when gas prices are high.**

  - Illustrate benefits of FE in context of volatile oil prices. Construct (1) "expected" fuel prices over lifetime of a vehicle and (2) illustrative future fuel price paths to illustrate potential for volatility.

- **Continue to update driving and maintenance tips, especially for hybrids, PHEVs, EVs, and other advanced technology vehicles.**

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SUMMARY

- **Fulfills DOE's <u>statutory responsibility</u> to provide FE information to the public (49 USC 32908, 2006)**

- **>350M FE.gov users since 1999 (49.7M in MY 2014)**

- **>1B gallons of petroleum reduction since 1999 (168M gallons in MY 2013)**

- **Continue efforts with *FEG*, FE.gov, media outreach, *MotorWeek*, etc.**

- **Expand efforts with FE Tool Kit, PSA campaign, used car tools, "Personalized MPG," new tools for mobile devices, and updated tips for advanced technology vehicles**

Traffic on www.fueleconomy.gov by Model Year

Estimated Fuel Savings of Fuel Economy Information Program

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