Project ID # VAN009

Transportation Data Programs:

Transportation Energy Data Book, Vehicle Technologies Market Report, and VT Fact of the Week

Principal Investigator: Stacy Davis
June 11, 2015


June 8-12, 2015

This presentation does not contain any proprietary, confidential, or otherwise restricted information
Overview

Timeline
• Project start date: October 2014
• Project end date: September 2015
• Percent complete: 80%

Barriers
• Barriers addressed
  – Multi-Year Program Plan 2011 - 2015
    Section 2.6 Outreach, Deployment and Analysis A, B, C
    Section 3.2 Program Analysis

Budget
• Total project funding
  – $575K / year
• Funding received in FY14: $575K
• Funding for FY15: $518K

Partners
• Collaboration with:
  – Energy Information Administration
  – U.S. Department of Transportation
  – U.S. Environmental Protection Agency
  – Argonne National Laboratory
  – National Renewable Energy Laboratory
  – Ward’s Automotive
  – Crain Communications
Transportation Energy Data Book Relevance

• This long-running project has been active at Oak Ridge National Laboratory since 1975. We are currently working on Edition 34.

• The purpose of the project is to draw together, under one cover, transportation data from diverse sources, to resolve data conflicts and inconsistencies, and to produce a comprehensive document.

• Policymakers, transportation analysts, and VTO staff require quality historical data and information on the transportation sector to affect good decisions for the future.

• The Data Book supports VTO public outreach and allows VTO staff and EERE Public Affairs Office to provide quick responses to outside queries.

Website address: http://cta.ornl.gov/data/
Vehicle Technologies Market Report Relevance

• The Vehicle Technologies Market Report began in 2009 and six editions have been published thus far.

• This report details the major trends in U.S. light-duty vehicle and medium/heavy truck markets and contains data on an individual manufacturer level.

• Special attention is given to the progress of high efficiency and alternative fuel technologies, in accordance with VTO’s mission.

• The report supports VTO public outreach and allows VTO staff and EERE Public Affairs Office to provide quick responses to outside queries.

Website address: http://cta.ornl.gov/vtmarketreport/
VTO Fact of the Week Relevance

• ORNL began developing the weekly VTO Fact of the Week in April 2001.

• The Fact topics align to VTO’s mission, mainly concentrating on the energy uses and energy efficiencies of the highway mode.

• The Fact of the Week supports VTO public outreach and drives traffic to the VTO website.

Website address:
http://www1.eere.energy.gov/vehiclesandfuels/facts/2015_index.html

The Mission of the Vehicle Technologies Office (VTO) is to develop and assist in the deployment of more energy-efficient and environmentally friendly technologies for highway transportation passenger and commercial vehicles that will meet or exceed performance expectations and environmental requirements, enabling the U.S. to use significantly less petroleum and reduce greenhouse gas emissions. - Multi-Year Program Plan 2011 – 2015
Transportation Energy Data Book Milestones

Transportation Energy Data Book: Edition 33 published July 2014

Edition 34 will be published in July 2015
Vehicle Technologies Market Report Milestones

- Published the 2013 Vehicle Technologies Market Report – March 2014
- Published the 2014 Vehicle Technologies Market Report – March 2015
VTO Fact of the Week Milestones

- Developed a new Fact each week of FY 2014* to be posted on the Vehicle Technologies Home Page
- Developed and will continue to develop a new Fact each week of FY 2015 to be posted on the Vehicle Technologies Home Page

*The Vehicle Technologies Office (VTO) website was reprogrammed during 2014. From February 24 to April 14, VTO could not post new content, including Facts, due to the reprogramming. ORNL provides content to website programmers but has no control over the DOE VTO website.
## Transportation Energy Data Book Approach/Strategy

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<th>Discovery</th>
<th>Due Diligence</th>
<th>Outreach</th>
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<td>• Content review</td>
<td>• Convert units</td>
<td>• Update Website</td>
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<td></td>
<td>– Petroleum</td>
<td>- Serve data in Excel and pdf</td>
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<td>– Energy</td>
<td>• Publish hardcopy</td>
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<td></td>
<td>– Highway Vehicles</td>
<td>- Distribute to mailing list of nearly 1,300 people</td>
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<td>– Light Vehicles</td>
<td>• Answer questions from the public</td>
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<td>– Heavy Vehicles</td>
<td>• Request user feedback</td>
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<td>– Unit Conversions</td>
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<td>• Source identification</td>
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<td>• Data collection</td>
<td>• Perform calculations</td>
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<td>– From Excel, pdf &amp; hardcopy</td>
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<td>• Confirm all series revisions</td>
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<td>• Analyze disparate data</td>
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# Vehicle Technologies Market Report Approach/Strategy

## Discovery
- Content review
  - Energy & Economics
  - Light Vehicle Market
  - Heavy Truck Market
  - Advanced Technologies
  - Policy
- Source identification
- Data collection
  - From Excel, pdf & hardcopy

## Due Diligence
- Convert units
- Perform calculations
- Confirm all series revisions
- Analyze disparate data
- Study definitions
- Assemble notes
- Create graphics and tabulations

## Outreach
- Update Website
  - Serve data in Excel and pdf
- Answer questions from the public
- Request user feedback
### VTO Fact of the Week Approach/Strategy

#### Discovery
- Probe for new report releases on:
  - Fuels
  - Vehicle efficiency
  - Policy
  - Advanced technology
  - Consumer trends
- Search for data on timely news topics
- Data collection
  - From Excel, pdf, html & hardcopy

#### Due Diligence
- Convert units
- Perform calculations
- Study definitions
- Assemble notes
- Create graphics and tabulations

#### Outreach
- Provide a new Fact of the Week for posting on the VTO website on a weekly basis
Successful Outreach: Hardcopies of the Data Book are preferred by many

Hardcopy mailing list of about 1,300 individuals

1,400 books printed in FY14

In FY2014 mailing, Data Book users asked to reply to continue receiving hardcopies and provide comments on the report.

375 Replies

- 322 - had no comments
- 40 - “thank you” or “excellent”
- 13 - suggestions for improvement

- If any hardcopies are left once the new edition is printed, they are sent to schools and universities for use as reference books for students.
- The University of Michigan and Georgia Tech University have used the Data Book as a course textbook.

Website: Average of 6,600 visitor sessions per month in FY2014
Successful Outreach: Hardcopy mailing list purged and comments solicited

“Leave well alone. An excellent publication.”

“I love getting the print edition for quick access to many tables I need to scan. Online access is good for putting numbers into my work!”

“Even in the digital age, sometimes you want that physical book to refer to. Thanks for keeping this book going!”

“With VIUS a fading memory, more state level data – sales, fuel economy, technology penetration, and incentives would be helpful.”

“Please include more maritime shipping data.”

“Include as much on rail as possible.”

“It’s great – useful – no change needed!”

“This is my go-to book for academic and press writing. Thanks Ms. Davis and Uncle Sam!”

“Improves every year by including more statistical data. An outstanding publication that I use all the time.”

“Nice data book that I use in energy and transportation technology courses.”
Technical Accomplishments and Progress

Outreach via hardcopy and the web has led to widespread use of the data and public education on transportation

Searching Google Scholar shows more than 1,500 citations for the Data Book in scholarly reports.

Besides being cited twice in the Vehicle Technologies Multi-Year Program Plan, data from the Transportation Energy Data Book has been used in a variety of other documents, such as The Economic Report of the President, Popular Science Magazine, and Newsweek Education.

Many models developed for VTO use input data from the book, as well as other agencies’ models, such as EIA’s National Energy Modeling System (NEMS) and EPA’s Motor Vehicle Emission Simulator (MOVES).
Vehicle Technologies Market Report
Technical Accomplishments and Progress

At least 20 pages of additional content in the 2014 Market Report:

- Vehicle sales by price
- Car-sharing
- Import vs. domestic sales
- New technology penetration
- Hydrogen fuel cell vehicles
- Idle fuel consumption
- Corporate Average Fuel Economy credit trades and balances
- California Zero-Emission Vehicle credit trades and balances

Website: Average of 3,750 visitors per month in FY2014
About one-quarter of the new visitors to the VTO website come through the Fact of the Week web page.

May 1, 2014 through February 28, 2015.

On May 26, 2014 the figure size was increased for better readability.

On July 21, 2014 the Fact of the Week began including a link to an Excel spreadsheet that contained the raw data for the figures shown.

Of the 24 Facts posted in this fiscal year (October to mid-March), only five were from the Data Book or Market Report.

24 FOTWS posted
- 5 Report related
19 Original Facts
Responses to Previous Year Reviewers’ Comments

• **What mechanisms are used to collect user feedback?**
  
  – Dating back to Edition 5 in 1981, Data Book users are encouraged to give feedback to the project sponsor and/or lead author, with contact information provided after the title page in each Edition.
  
  – The same information is found via a “Contact Us” link at the bottom of every page on the Data Book and Market Report websites.
  
  – In addition, this year the Market Report website has a new user feedback icon. This same icon will be on the Data Book website when it is updated to Edition 34.
  
  – A postage-paid mail-back card which asked for comments or suggestions for improvement was sent with every Edition 33 Data Book mailed out in 2014.

• **Is there an opportunity to print fewer copies of the Data Book?**
  
  – Yes, the mailing list was purged and postage-paid mail-back cards were sent with the Edition 33 hardcopy mailing. Only those who returned the cards or emailed responses will be kept on the hardcopy mailing list, reducing the list from 1,300 to about 400.

• **“Splitting the Data Book or the web-based report into sections that are updated periodically would have greater value to users.”**
  
  – In verbal contact, emails, and feedback cards, Data Book users have made it clear that they do not want changes to the chapters or sections of the report. Users are able to quickly find the content needed when chapters do not vary greatly from one year to the next. However, when changes in the transportation sector warrant a new chapter or changes to the current chapters, the authors will make changes.
In order to effectively communicate the data coming from an organization, one must know some of the details, definitions, and processes behind the data. ORNL regularly communicates with the following organizations in order to gain better understanding of the data coming from those organizations.

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*Other sources, as necessary*
Proposed Future Work

FY 2015

The final *Transportation Energy Data Book* will be sent to the printers and posted on the website in July.

A Fact of the Week will be developed and posted on the Vehicle Technologies Home Page weekly.

FY 2016

An updated annual *Transportation Energy Data Book* will be published and website updated.

An updated annual *Vehicle Technologies Market Report* will be published and website updated.

The Fact of the Week will be developed and posted to the Vehicle Technologies home page on a weekly basis.
Summary

- The Transportation Energy Data Book includes historical data tables that provide the foundation for the analysis performed by VTO staff and other transportation analysts in pursuit of energy efficient and environmentally-friendly technologies.

- The Vehicle Technologies Market Report is a colorful graphic-based report with an emphasis on the new vehicle market and new technologies coming into the market.

- The VT Fact of the Week is posted every Monday morning on the DOE VTO website home page, attracting visitors to the VTO website and benefitting transportation stakeholders and the general public.

Though each of these three data products has its own focus, the synergy among the products adds to the efficiency of the project.
ACKNOWLEDGEMENTS

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US Department of Energy

Philip Patterson, retired
Formerly of the Office of Vehicle Technologies
US Department of Energy

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