

Responsible Purchasing Guide for Light-Duty Fleet Vehicles

**Resources and tools for reducing
GHG emissions from fleets**



Presented by Matt Kittell

Responsible Purchasing Network

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www.ResponsiblePurchasing.org

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Webcast: Climate Neutral Fleet



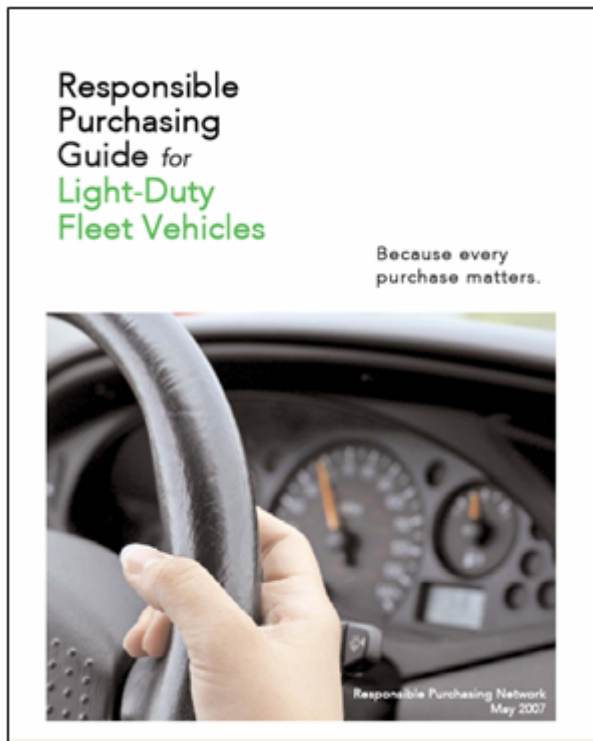
Overview

Resources and Tools

- ▶ *Responsible Purchasing Guide for Light-Duty Fleet Vehicles, 2007*
 - ▶ Improved practices
 - ▶ Cost, quality, & supply
 - ▶ Policies and specs
- ▶ HEV Calculator
 - ▶ Compare hybrid and conventional light-duty vehicles

Responsible Purchasing Guide for Light-Duty Fleet Vehicles, 2007

PDF



Web





Improved Practices

1) Reduce Fleet Size

- ▶ Match vehicle class to staff duty and driving environment
 - ▶ Right size for efficiency
- ▶ Eliminate underutilized vehicles
 - ▶ No vehicles with low annual mileage
- ▶ Eliminate inefficient vehicles
 - ▶ No vehicles with low fuel economy



Improved Practices

2) Drive Efficiently

- ▶ Train drivers on efficient driving
 - ▶ No aggressive acceleration/deceleration
 - ▶ Follow speed limit and use cruise control
 - ▶ Remove excess loads from vehicles
- ▶ Exercise proper maintenance
 - ▶ Tire pressure, fluids, filters
- ▶ Prohibit idling
 - ▶ Conserve fuel and reduce emissions



Improved Practices

3) Reduce Vehicle Trips

- ▶ Choose alternative modes of travel when practical
 - ▶ Incentivize car pooling, transit, biking, walking, teleconference
- ▶ Improve route planning
 - ▶ Multi-task for lower mileage
- ▶ Use car-sharing when possible
 - ▶ Promotes efficient scheduling and use



Cost, Quality, & Supply

Key Points to Remember

- ▶ Sticker price is not the only cost
 - ▶ Look at life-cycle
- ▶ Lower emissions and higher quality
 - ▶ Efficient vehicles have proven record
- ▶ There is a most efficient vehicle in every class
 - ▶ In some cases, hybrids too!
 - ▶ And plug-in hybrids?



Policies and Specs

RPN's Green Fleet Resources

- ▶ Collection of policies from leading institutions
 - ▶ Policies provide a mandate
 - ▶ Model Policy – Ann Arbor, MI
- ▶ Collection of bid and contract specs
 - ▶ Specs deliver the goods
 - ▶ Model Specs – Massachusetts, New York



Hybrid Vehicle Calculator

Calculate Cost & CO2



- ▶ www.ResponsiblePurchasing.org/calculator/
- ▶ All light-duty 2007 model year vehicles
 - ▶ Hybrid and conventional
- ▶ Sample comparison – Prius vs. Crown Vic



VS.



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Single Car Comparison

[Methodology](#) [Fleet Tool](#)

Are you thinking about purchasing a hybrid vehicle for your fleet, but aren't sure what the benefits are and whether the higher purchase price is worth it? This *HEV Fleet Cost and Benefit Calculator Tool* will allow you to compare the lifetime costs and air emissions of a hybrid to those of a conventional vehicle.

In the first menu, you will choose a hybrid vehicle and a comparison conventional fleet vehicle. If you would like to select a different fleet vehicle, [click here](#) or on the "enter your own" link below. Emissions data are available for the list of default 2007 model year fleet vehicles. In all cases, you can override the default cost values, which are projections from national fleet data, with your own localized information.

Please click on the field names to get more information where applicable.

Step 1: Choose your vehicles or [enter your own](#) for comparison

	Hybrid Model	Standard Model
Make	Toyota ▾	Ford ▾
Model	Prius ▾	Crown Victoria ▾
Engine/Transmission	4 cyl, 1.5L, Auto (CVT), 2WD ▾	8 cyl, 4.6L, Auto (4), 2WD ▾
Emissions Level	PZEV / Bin 3 ▾	Bin 5 / LEV II ▾

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Single Car Comparison

[Methodology](#) [Fleet Tool](#)

Step 2: Customize your selections for each car model or use the default values below

	Toyota Prius	Ford Crown Victoria
Purchase Price	→ <input type="text" value="\$24,328.00"/>	→ <input type="text" value="\$21,056.00"/>
Tax Incentives/Price Discount(\$)	<input type="text" value="0"/>	<input type="text" value="0"/>
City Fuel Economy (MPG)	→ <input type="text" value="48"/>	→ <input type="text" value="15"/>
Hwy. Fuel Economy (MPG)	→ <input type="text" value="45"/>	→ <input type="text" value="23"/>

Other Cost Factors

Annual Mileage	→ <input type="text" value="15000"/>
Years of Use	→ <input type="text" value="5"/>
Gasoline Cost	→ <input type="text" value="\$2.85"/>
Discount (%)	→ <input type="text" value="4"/>
Percentage of City Driving	→ <input type="text" value="55"/>

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Single Car Comparison

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Step 3: Customize these variables or use the default values below

	Toyota Prius	Ford Crown Victoria
Resale Value	<input type="text" value="\$9,495.24"/>	<input type="text" value="\$2,333.56"/>
Annual Maintenance Costs	<input type="text" value="\$437.77"/>	<input type="text" value="\$565.62"/>

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Single Car Comparison

[Methodology](#)

Step 4: Get Results

Using the inputs provided, this tool calculates the full life-time costs, including capital and operating, of both the hybrid and conventional vehicles and the difference in cost between the two.

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Summary Results:

Lifetime Emissions Savings from Hybrid

Carbon Dioxide	49,552 lbs.
Carbon Monoxide	881 lbs.
Nitrogen Oxide	11 lbs.
Particulate Matter	0 gms.
Hydrocarbons	15 lbs.

Cost Comparison

Cumulative Cost of Toyota Prius	\$21,106.79
Cumulative Cost of Ford Crown Victoria	\$32,471.07
Lifetime Savings from Toyota Prius	\$11,364.28
Average per-mile savings from Toyota Prius	\$0.15
Average annual cost of Toyota Prius	\$4,221.36
Average annual cost of Ford Crown Victoria	\$6,494.21
Average annual savings from Toyota Prius	\$2,272.86

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Conclusions

Climate Neutral Fleet

- ▶ Starts with conservation and efficiency
 - ▶ Drive less, drive efficiently
- ▶ Requires measurement, policy, and monitoring
 - ▶ What gets measured gets managed
- ▶ Requires responsible purchasing
 - ▶ Specify for fuel economy, alt fuels, and life-cycle savings

How about your own driving?

Join the Movement to Downshift Your Driving

<http://c3.newdream.org/>

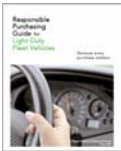
The screenshot shows the 'Carbon Conscious Consumer' website. At the top, it says 'BIG changes start with small steps' and features icons of a bicycle and a car. The main heading is 'This Month: Downshift Your Driving Go Car Free One Day A Week'. Below this is a registration form with fields for 'E-mail', 'First Name', 'Last Name', and 'Zip'. A 'Pledge' button is visible. To the right of the form is a map of the United States with red dots indicating campaign locations. Below the map, it says 'Total: 7328' and 'degree of separation'. There are also buttons for 'play again' and 'See last month's totals'. At the bottom, there is a 'Prizes' section and a 'What are you doing to change the world this summer?' section with the text 'Bike Hundreds of miles. Meet incredible people. Live with the land and your carbon footprint. Choose...'. A small error message 'Error on page.' is visible at the bottom left of the browser window.



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Emissions from Fleets**

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