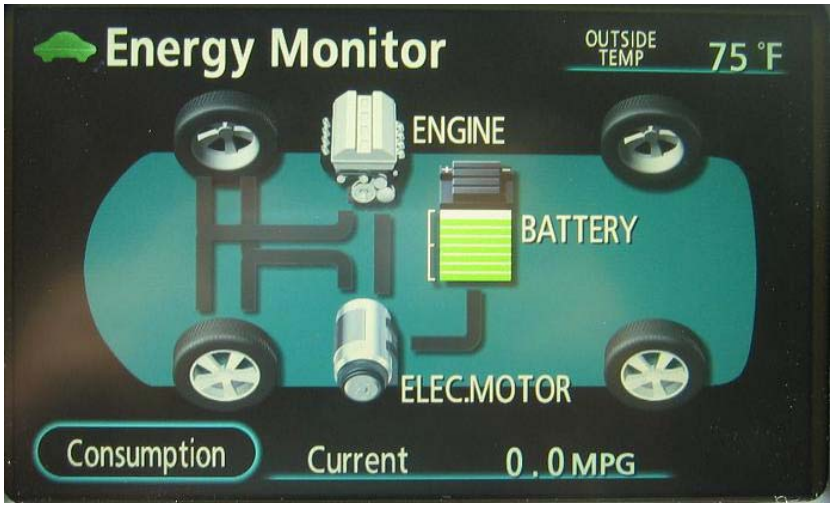
Electric Conversion of a Hybrid Car

(Plug-in Hybrid Electric Vehicle – PHEV)

Barry Romich
Wayne County Sustainable Energy Network

Renewable Energy Workshop
12 November 2009
OARDC

Standard Hybrid Electric Vehicle
(Parallel System - Idle)



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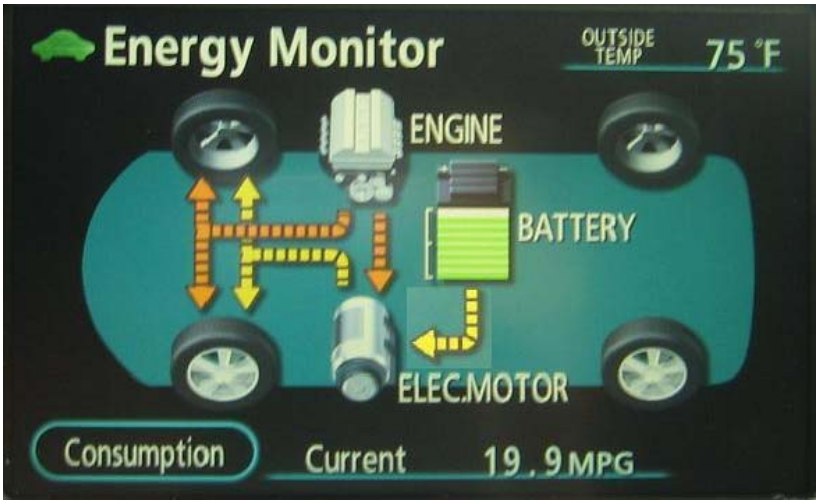
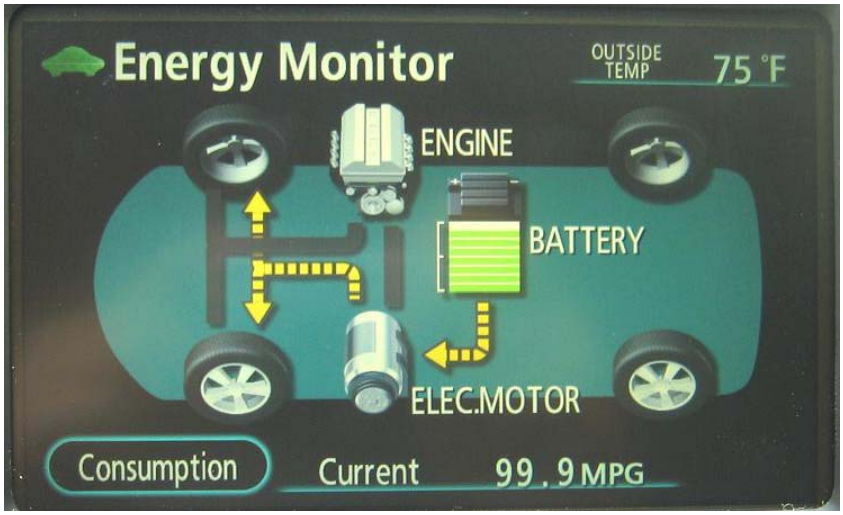
Standard Hybrid Electric Vehicle
(Accelerating)



3

Standard Hybrid Electric Vehicle
(Electric only)



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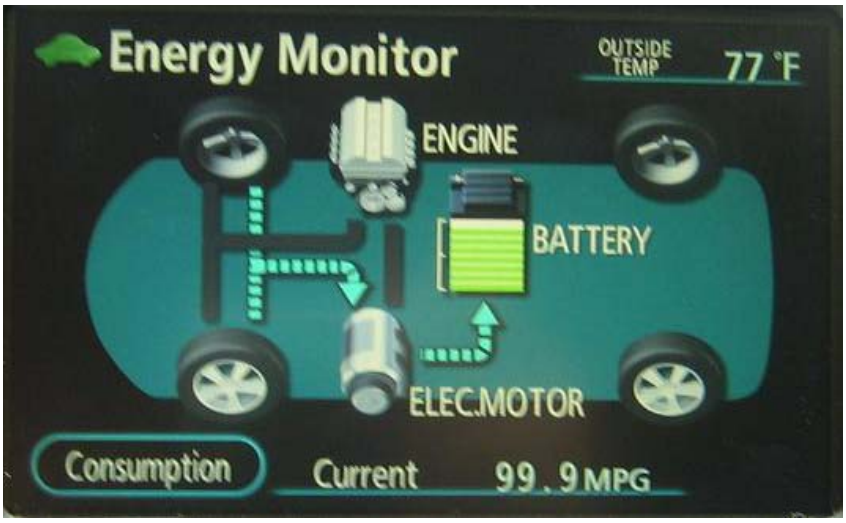
Standard Hybrid Electric Vehicle
(Decelerating)



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Plug-In Hybrid Electric Vehicle (PHEV)

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Hymotion System

- Addition of 5 KW-Hr battery
- Spare tire well
- ~ 187 pounds
- Charges using 120 Volts AC, 10 amps.
- Charge time: ~5-1/2 hours
- Charge life: ~ 30 miles
- Fuel economy during charge life: >100 MPG

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Installation:

Toyota dealer

14 Certified Installers nationwide

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Charging

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TOYOTA
PHEV
Hymotion.com

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Consumption
OUTSIDE TEMP 52 °F
=50Wh Regenerated
MPG
100
75
50
25
0
30min 25 20 15 10 5 0
Current
Average
Energy
84.0 MPG
372 miles
Reset
CLIMATE
DISPLAY
INFO
ODO
km/h
MPH

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Future

2010: Available from Toyota for fleets

2011: Available for individuals

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Tonight!

Free & Open to the Public

FUEL CELLS 3 SPEAKERS

Thursday, November 12 • 7:00 - 8:30 p.m. *plus Q&A*

Mackie Hall in Westminster Church House • 353 E. Pine St. • College of Wooster

Mr. Patrick Valente
Executive Director of Ohio Fuel Cells Coalition
"Overview of Fuel Cells in Ohio with emphasis on north-east region."

Dr. Jim C. Maloney
Faculty, Fuel Cell Technology, Stark State College, Canton
"Fuel Cells 101 and Fuel Cell program at Stark State College, Canton."

Mr. Dan Birmingham
Director of Engineering, Rolls Royce Fuel Cell Systems (US)
"Development of a Mega-Watt scale Solid Oxide Fuel Cell (SOFC) Power System."

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Contact

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