

# **COG Metropolitan Washington Alternative Fuels Clean Cities Partnership**

- **Alternative Fueled Vehicles**
- **Compressed Natural Gas (CNG)**
- **American Honda's 2008 Offering**
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# HIERARCHY OF HONDA ENERGY CHOICES

**Benefits to Society**



## Good

### Clean gasoline

- Ultra Low emissions
- Gasoline will be the dominant “clean” fuel for the long term



## Better

### Gasoline-Electric Hybrids

- Near zero emissions
- Higher MPG
- Decreased petroleum use
- Reduced fuel cost
- Innovative proven technology
- Fueled with gasoline



## Best

### Natural Gas Vehicle

- Near zero emissions
- 100% domestic fuel
- Replaces Petroleum
- Proven technology
- 25% less CO2
- Home refueling
- Best alternative fuel for many decades
- Path to H2



## Ultimate

### Hydrogen Fuel Cell

- Zero emissions
- Cleanest fuel, derived from natural gas or renewable energy
- Replaces petroleum
- Potential for home refueling
- Uses existing natural gas infrastructure



No new Infra

New Infra

# Hybrid Solutions

(Near-Zero Emissions + High Fuel Economy)



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# Natural Gas Solutions “Cleanest on Earth”



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# CNG Infrastructure



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# Home Refueling: Phill



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# CNG Vehicles

## Best Light Duty Solution



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# 2008 GX-Increased Size!



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# New Interior!

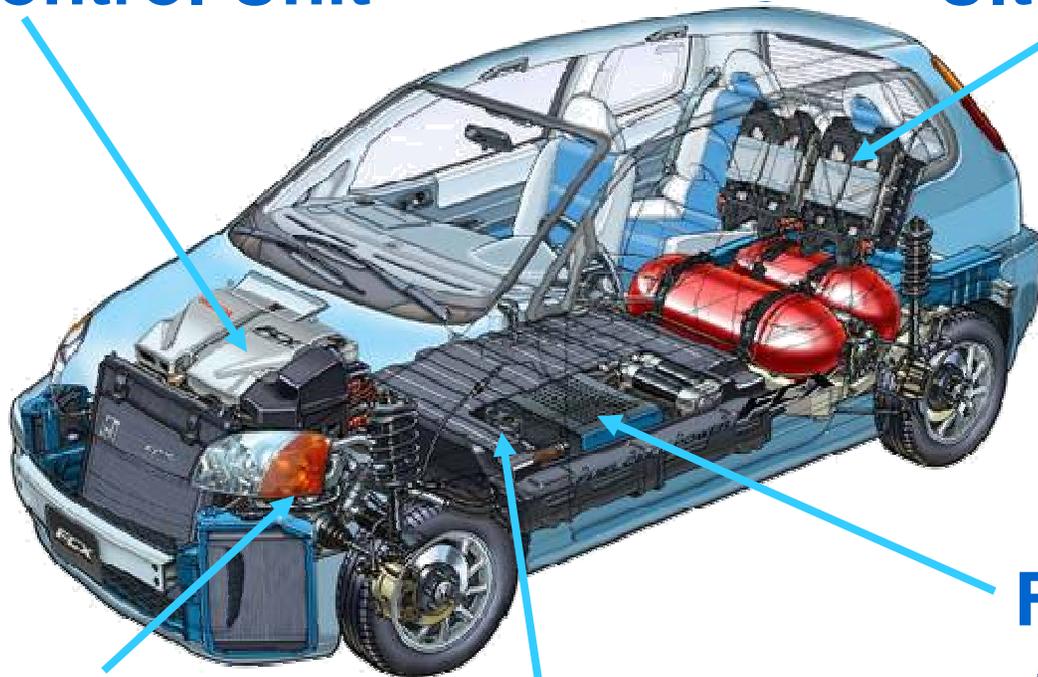


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# Hydrogen Fuel Cell Vehicle Overview

**Power Control Unit**

**Ultra Capacitor**



**Traction Motor**

**FC Stack**



**FC Sub system**



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# FCX 5.0/HES-3.0 Home Refueling



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# H2/Fuel Cell Challenges

- **Cost!**
- **Infrastructure**
- **Sources of Hydrogen:  
Green/Brown**
- **OnBoard Storage**
- **Public Perception**

# E-85/FlexFuel Vehicles



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# **E-85 Infrastructure/Challenges**

- **Stations: Easy, low cost addition**
- **85% Displacement of Petroleum**
- **Lower Energy Content; 1.4/1 ratio**
- **Higher price; BUT Incentives help**
- **Short-Term Supply Issues**
- **Need to support research, local production**
- **Food vs Fuel**

# Biodiesel Facts

- **Easiest Way to Implement for Medium/Heavy Duty**
- **B5 – B20 Blends**
- **Renewable Component: Soy/Corn**
- **Minor Modifications to Existing Equipment**

# Biodiesel Challenges

- **Easy to add infrastructure**
- **B2, B5, B20 – B100**
- **Weather Issues**
- **Supply Issues**
- **Cost Issues**
- **Overall Positive; Displacement of Petroleum**

# Federal/State Incentives

- **2005 Energy and Highway Bills**
- **Vehicle Tax Credits ; Pass-Through**
- **Infrastructure Credits/Incentives;  
State, Federal**
- **Fuel Credits/Incentives; State,  
Federal**

*Drive Into the Future!*

*Support of Alternative Fuels  
Is “The Pathway to Hydrogen”*



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