

# Plug-in Hybrid Vehicles

## PowerPoint Presentation

This PowerPoint presentation consists of all data which has been gathered on Alternative Fuel Vehicles, but concentrates on PHEVs. You will be required to include text objects on each slide, photos, and links to the next and previous slide. You must also include a link to the beginning slide on every slide. BiFuel Swedish Autos and the Prius Demo Photos are in the Shared Folder (under Users

### Slides

#### 1. Introduction

Title  
Description of PHEVs (approx. two sentences)  
Your name  
Date  
CalCars Prius PHEV photo (from EVWorld site)

#### 2. Need for Alternative Fuel Vehicles

Explain why AFVs are necessary in our country and world. Include info about at least four reasons, including pollution, petroleum, international relations, economics, and resources.  
Include a photo of an AFV of any type

#### 3. Types of Alternative Fuel Vehicles

List at least 5 different types of AFVs (example: Diesel, HEV, etc.)  
Tell one positive attribute for each AFV  
Include a small photo of another AFV of any type

#### 4. Plug-in Hybrid Vehicles

In your text object, include the following facts about PHEVs:  
1. Why are they better than regular HEVs?  
2. How much more does the Prius cost as a PHEV?  
3. How far can you drive in pure electric mode in the EDrive PHEV?  
4. What company is creating PHEVs for the public (what city)?  
5. What type of batteries are used in this PHEV?  
Include a photo of the battery pack of the EDrive Prius PHEV.

#### 5. Diesel Vehicles

1. Add a photo of a vehicle which runs on diesel (regular diesel, or biodiesel, or diesel/electric hybrid)  
2. List positives about diesel  
3. List negatives about diesel  
4. How is diesel fuel produced

- 6. Pure Electric Vehicles**
  1. Add a photo of a pure electric vehicle
  2. List positives about electric vehicles
  3. List negatives about electric vehicles
  4. How five ways electricity is produced
  
- 7. Compressed Natural Gas Vehicles**
  1. Add a photo of a Honda Civic GX
  2. List positives about CNG
  3. List negatives about CNG
  4. How is CNG produced
  
- 8. Ethanol Fuel Vehicles**
  1. Add a photo of a vehicle which can run on an ethanol blend of fuel
  2. List the positives of ethanol as a fuel
  3. List the negatives of ethanol as a fuel
  4. From what products can ethanol be produced
  
- 9. Liquid Petroleum Gas (Propane or LPG) Vehicles**
  1. Add a photo of a truck which can use LPG
  2. List the positives of LPG
  3. List the negatives of LPG
  4. How is LPG produced
  
- 10. Hydrogen Fuel Cell Vehicles**
  1. Add a photo of a vehicle which uses a hydrogen fuel cell
  2. List the positives of hydrogen fuel cells
  3. List the negatives of hydrogen fuel cells
  4. How is hydrogen produced for fuel cells
  
- 11. The Case for PHEVs--Part 1**
  1. Add a photo of your favorite HEV which can possibly be converted to PHEV
  2. EVWorld site: How much would electricity cost in a PHEV traveling 60 miles
  3. How much would gasoline cost (at \$3.20 per gallon at 20 miles per gallon)
  
- 12. The Case for PHEVs--Part II**
  1. Add the same photo from the previous slide
  2. Explain how speed and aerodynamics affect miles per gallon in a vehicle
  3. What percent of power at 55mph is from electricity in a PHEV
  4. What percent of power at 75mph is from electricity in a PHEV
  5. From what sources does electric power need to be produced to be very clean
  
- 13. Why I Would Buy a PHEV**
  1. Include a photo of the car you want to eventually be available as a PHEV
  2. Tell why you would purchase a PHEV, giving all reasons you are able
  3. Write a final two sentences which will encourage other drivers to agree with you about PHEVs.