

The logo for Consumers Energy, featuring the company name in a bold, blue, italicized sans-serif font. The text is enclosed within a bright green, curved swoosh that starts thin on the left and tapers to a thick, rounded end on the right.

***Consumers Energy***

***Count on Us***

***Plug-in Electric Vehicle (PEV)  
Program Overview***

*October 2010*

## *Agenda*

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- PEV Penetration
- PEV Charging
- Michigan PEV Readiness
- Consumers Energy's Approach
- Rates and Customer Programs
- Q & A

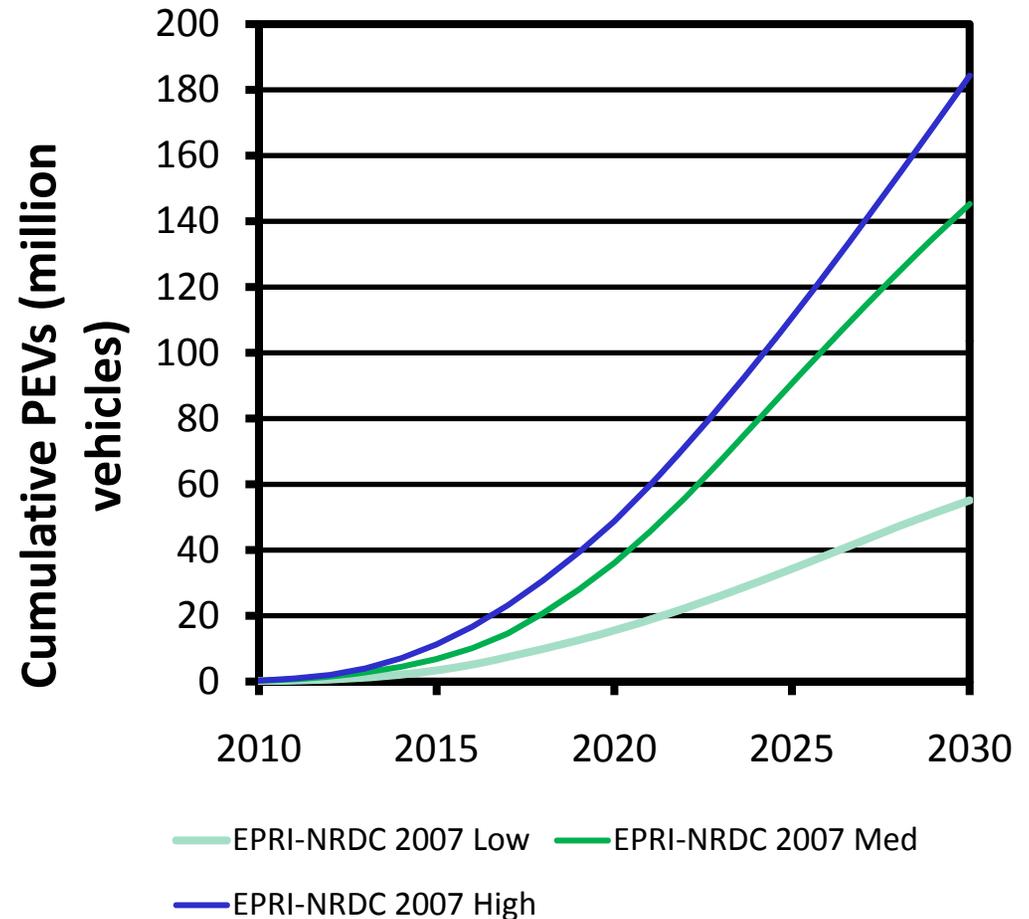
## What is a PEV?

- Plug-in Electric Vehicle
- Utilizes battery and electric motor technology for vehicle propulsion
- A car that has electricity as a fuel source
- Benefits:
  - PEV owners can use battery/electric charge for daily driving
  - Some vehicles have an additional fuel source for extended distances
  - Regenerative braking recharges and extends battery range
  - Lower fuel costs



# PEV Potential Market Penetration

- How fast will PEVs roll out?
- Expected load growth-a new opportunity?
- What is the distribution system impact?
- How will public charging and infrastructure costs be funded?



## Charging Power Levels & Requirements

- **120V (1.2 kW) charging** (15amp min, 20amp rec.)
  - Plugs into standard household outlet
  - Full charge in about 8 to 13 hours, depending on car model and air temperature
  - No additional equipment or installation required
  - Charge cord standard with the vehicle
  
- **240V (3.3 kW) charging** (20amp min, 40amp rec.)
  - Full charge in about 3 to 6 hours, depending on the car model and air temperature
  - More efficient, reduces need for back-up
  - Will usually require a one-time investment to upgrade garage with dedicated 240V circuit



## Michigan PEV Readiness

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- Michigan is a leader in PEV development, manufacturing and readiness
- MPSC PEV Preparedness Taskforce
  - Promote Michigan as a leader, seamless customer transition
  - Diverse stakeholders: auto manufacturers, Commission staff, regulated and unregulated utilities, electrical inspectors and contractors, environmental groups, not-for-profit groups
  - Developing recommendations for statewide implementation
- Website: [www. PlugInMichigan.org](http://www.PlugInMichigan.org)

## ***Consumers Energy's Approach***

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- Provide PEV rates
- Customer support
  - PEV expert network
  - Call center/Interactive Voice Recognition (IVR)
  - Website
- Internal processes/workflow
  - Customer account setup
  - Time of Use (TOU) metering and meter reading
  - Correct billing
- External communications plan under development

## ***Customer Contact Avenues***

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- Customers will contact us either by phone or email
  - Phone
    - Directly at (877) 904-9246
  - E-mail
    - Directly at [electricvehicleinfo@cmsenergy.com](mailto:electricvehicleinfo@cmsenergy.com)
  - Website
    - [www.consumersenergy.com/pev](http://www.consumersenergy.com/pev)
    - Smart Form – data information gathering

# Plug-in Electric Vehicles (PEV)

A Plug-in Electric Vehicle (PEV) is any motor vehicle that can be recharged by an external source of electricity and operates on public highways. Batteries on the vehicle store electricity, which provides a portion or the entire power source to operate the vehicle. Consumers Energy offers tips, residential [rate options](#) and other information to assist you on the road to enjoying your new PEV in Michigan.

[PEV Basics](#)



[Get Plug-in Ready](#)



[FAQs](#)



[PEV Rate Options](#)



[PEV Incentive Program](#)



[PEV Resources](#)



[E-mail](#)

Phone: (877) 904-9246

## ***Consumers Energy Rates***

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- Three rates have been created for PEV owners to choose from
  - The rates will be available beginning Nov. 1, 2010
  - The rates are experimental. However, there are no limitations on the number of participants
  - Rates are for residential customers only
- Customers may choose to stay on their current residential rate or general service rate

# Consumers Energy Rate Options

**Option 1** Combination house and charger. One Time Of Use (TOU) meter.

**Option 2** House and charger on separate meters. TOU for charger only.

**Option 3** House and charger on separate meters. Monthly flat rate of \$35 applies.

### Option 1 & 2 TOU Pricing Table

		Winter	Summer
11 p.m.-7 a.m.	Off-Peak	6 cents	6 cents
7 a.m.-2 p.m.	Mid-Peak (1)	11 cents	12 cents
2 p.m.-6 p.m.	On-Peak	11 cents	19 cents
6 p.m.-11 p.m.	Mid-Peak (2)	11 cents	12 cents

\* Weekends and Company holidays also are considered off-peak

### Option 3 Pricing Table

	Winter	Summer
First 300 kWh	\$35/month	\$35/month
Per kWh over 300	11 cents	16 cents

\* Other charges may apply for all rate options

## Consumers Energy Cost Comparison

Monthly cost of gasoline vs. electricity:

Assumes an average commute of 40 miles per day

Gasoline 1200 miles/month X 30 miles/gallon = 40 gallons/month X \$3/gallon

**= \$120 per month of gasoline**

Electricity 300kWh (off-peak charging) X 6 cents per kWh

**= \$18 per month of electricity**

## ***Consumers Energy Incentives***

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- Consumers Energy's incentive program begins Nov. 1, 2010 and ends Dec. 31, 2012
- Will provide funding to cover the purchase, installation and required home wiring of Level 2 charging station (240V)
  - Funding up to \$2,500 per customer for the first 2,500 participants
- Customer will coordinate (with support) the installation and Consumers Energy will reimburse the customer

## *Infrastructure and Vehicles*

- Installation of charging stations at multiple company facilities
- PEVs added to Consumers Energy fleet
  - ◆ Hybrid electric service truck
  - ◆ 2 Chevrolet Volts in March 2011
  - ◆ 2 Ford Transit Connects in 2011
  - ◆ 5 service trucks part of 2011 EPRI study



**Consumers Energy hybrid service truck**

# *Questions*