

The CashBack Lite

**Presentation to the
Electric Drive Transportation Association
Board of Directors
June 18, 2008
Washington, D.C.**

**Jon Wellinghoff
Commissioner
Federal Energy Regulatory Commission
jon.wellinghoff@ferc.gov
(202) 502-6580**

PHEV Economic Benefits to Utilities, Consumers, and Environment

★ Dual Economic Benefits

- ★ Increases Utility Revenues from Customers from Additional Consumption

- ★ While Lowering Consumer's Total Energy Bills (Gas at \$.60-\$1.00/gal Equivalent)

- ★ Spreads Utility Fixed Costs Over More kWh – Lowering All Electric Consumer's Bills

- ★ Reduces GHG by up to 27%

- ★ Reduces Dependence on Foreign Oil by 52%

- ★ Reduces Urban Air Pollution by up to 80%

CashBack Hybrid (V2G)

Electric System Benefits

★ Efficient Grid Management

- Ancillary Services (Spinning Reserve & Regulation)
- Dispatchable Reactive Power
- Peak Demand Services (Demand Response)
- Reduced Operating and Planning Reserves
- Distribution/Substation Level Support
- Reduced Line Losses
- Improved Power Plant Efficiency
- Improved Load Factor

★ Storage & Integration of Renewable Power

- Wind & Solar
- Load Following

★ Emergency Power Supply

★ Electric Transit Support

CashBack Hybrid (Lite)

Electric System Benefits

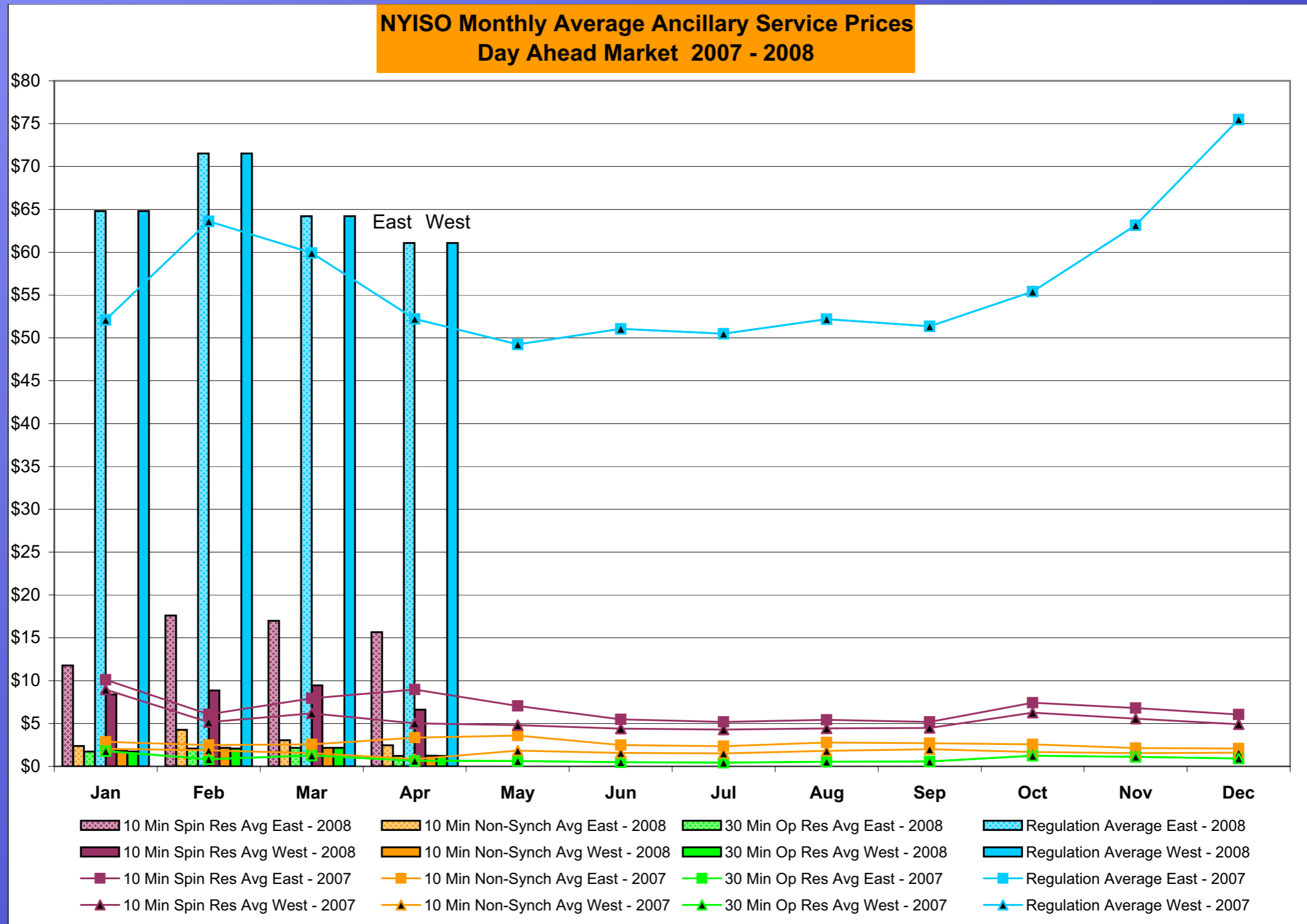
★ Efficient Grid Management

- Ancillary Services (Spinning Reserve & Regulation)
- Reduced Operating and Planning Reserves
- Distribution/Substation Level Support
- Reduced Line Losses
- Improved Power Plant Efficiency

★ Storage & Integration of Renewable Power

- Wind & Solar
- Load Following

Grid Regulation Services





UNIVERSITY OF DELAWARE

PJM

Pepco Holdings Inc
V2G

Vehicle-to-Grid Power (V2G)

How does it work?

Summary Vehicle-to-Grid (V2G) is a technology that allows a vehicle's battery to be used as a power source. This is done by connecting the vehicle's battery to a power grid. The vehicle's battery can then be used to power the grid, providing a source of clean, renewable energy. This technology is being developed by the University of Delaware, PJM, and Pepco Holdings Inc.

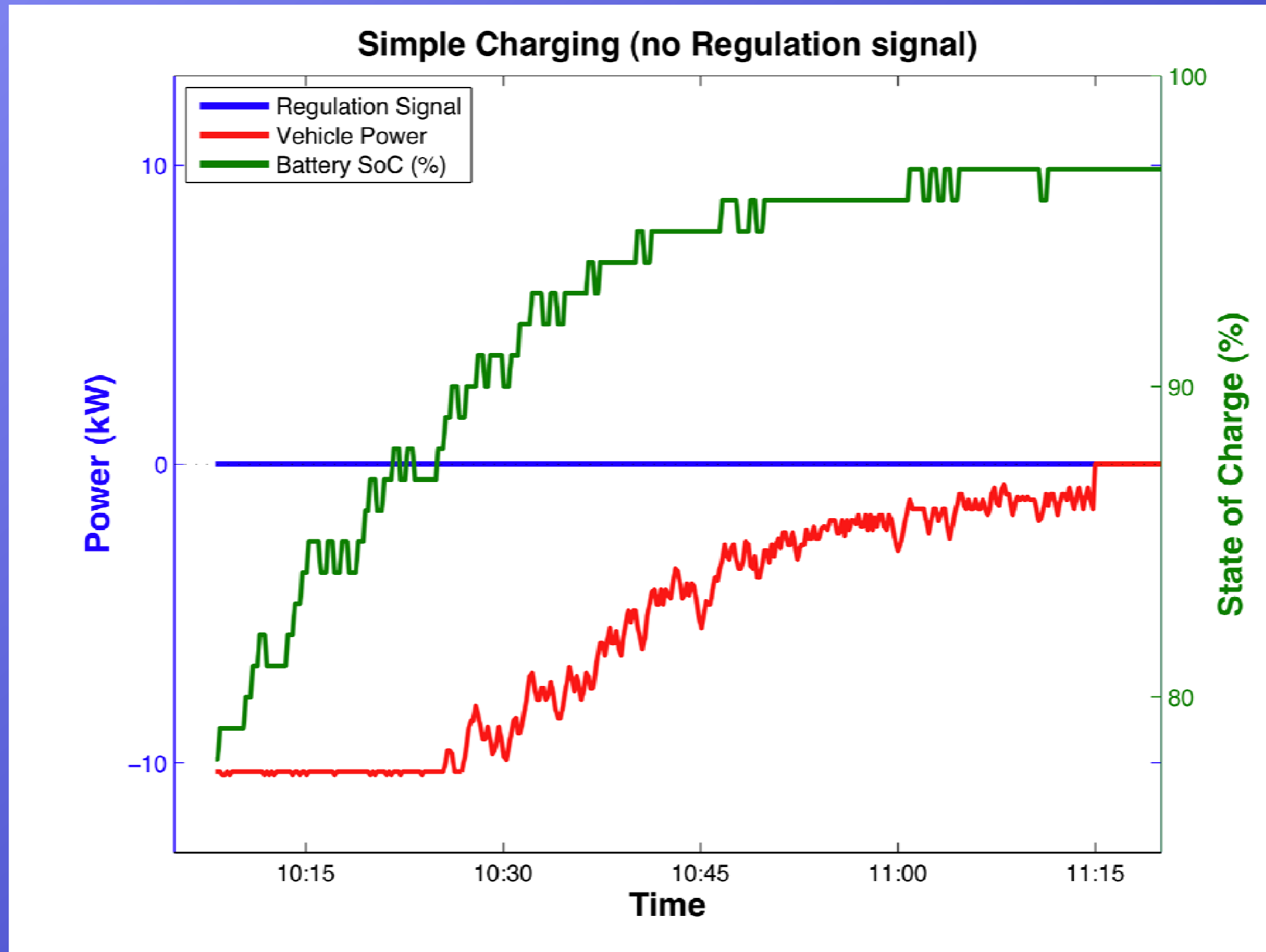
Applications V2G can be used in a variety of ways. It can be used to power homes, businesses, and even the grid itself. It can also be used to provide backup power during outages. V2G is a promising technology that has the potential to revolutionize the way we use energy.

Elements needed for V2G To use V2G, you need a vehicle with a compatible battery, a V2G device, and a power grid. The V2G device is a small box that connects the vehicle's battery to the power grid. It is installed in the vehicle's battery compartment. The power grid is the network of power lines that deliver electricity to homes and businesses.

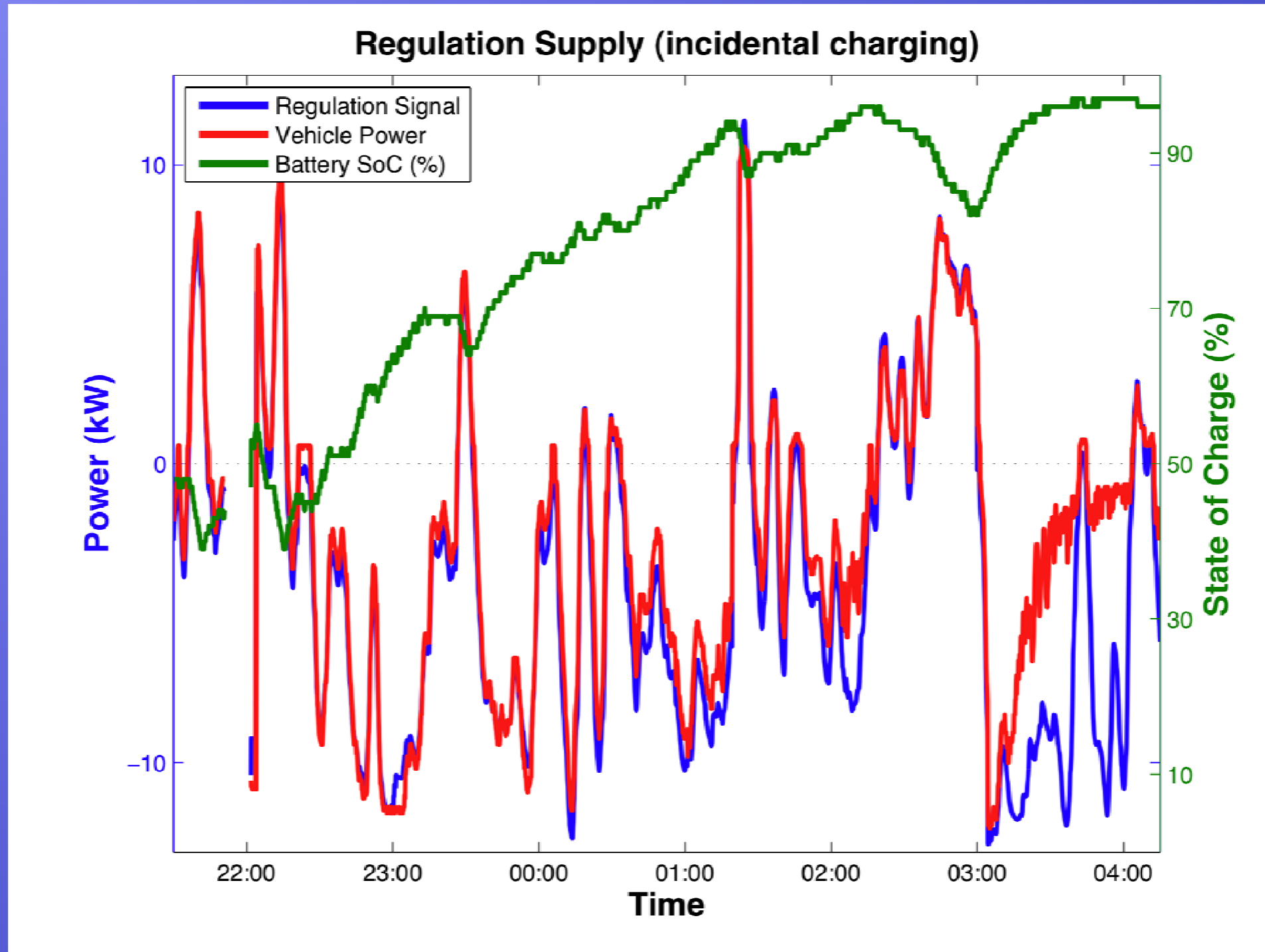
What is the University of Delaware doing? The University of Delaware is leading the development of V2G technology. It is working with PJM and Pepco Holdings Inc. to create a V2G network. The network will allow vehicles to be used as a source of power for the grid. This will help to reduce the amount of fossil fuels used to generate electricity and will help to reduce greenhouse gas emissions.

Pepco Holdings Inc
V2G

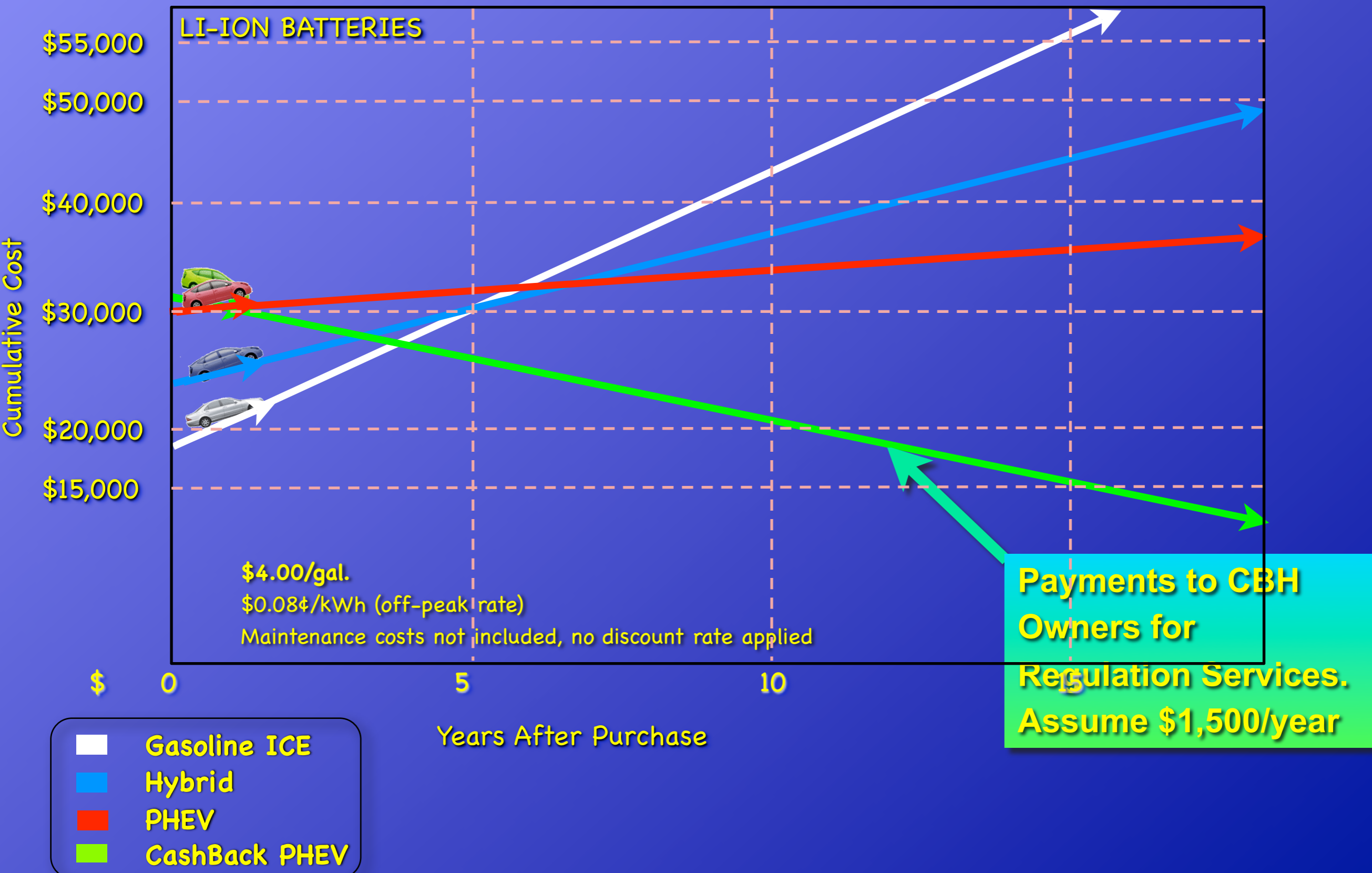
V2G for Grid Regulation Services



V2G for Grid Regulation Services



The "Cash Back" in CashBack Hybrid



Conclusions

★ The CASHBACK Hybrid :

- Will Save Their Owners Money on Their Total Energy Bills
- Will Cost Less Than a Conventional Gasoline Car in 4 Years or Less of Ownership (Incorporate Savings into Financing to Lower 1st Costs)
- Will Improve the Overall Efficiency of the Electric System and Save All Consumers on Their Electric Bills
- Will Reduce GHG and Urban Pollution
- Will Reduce Foreign Oil Imports
- Will Improve Electric Grid Reliability and Security