Smart Grid & PHEVs:

Components of the Future Electric Network

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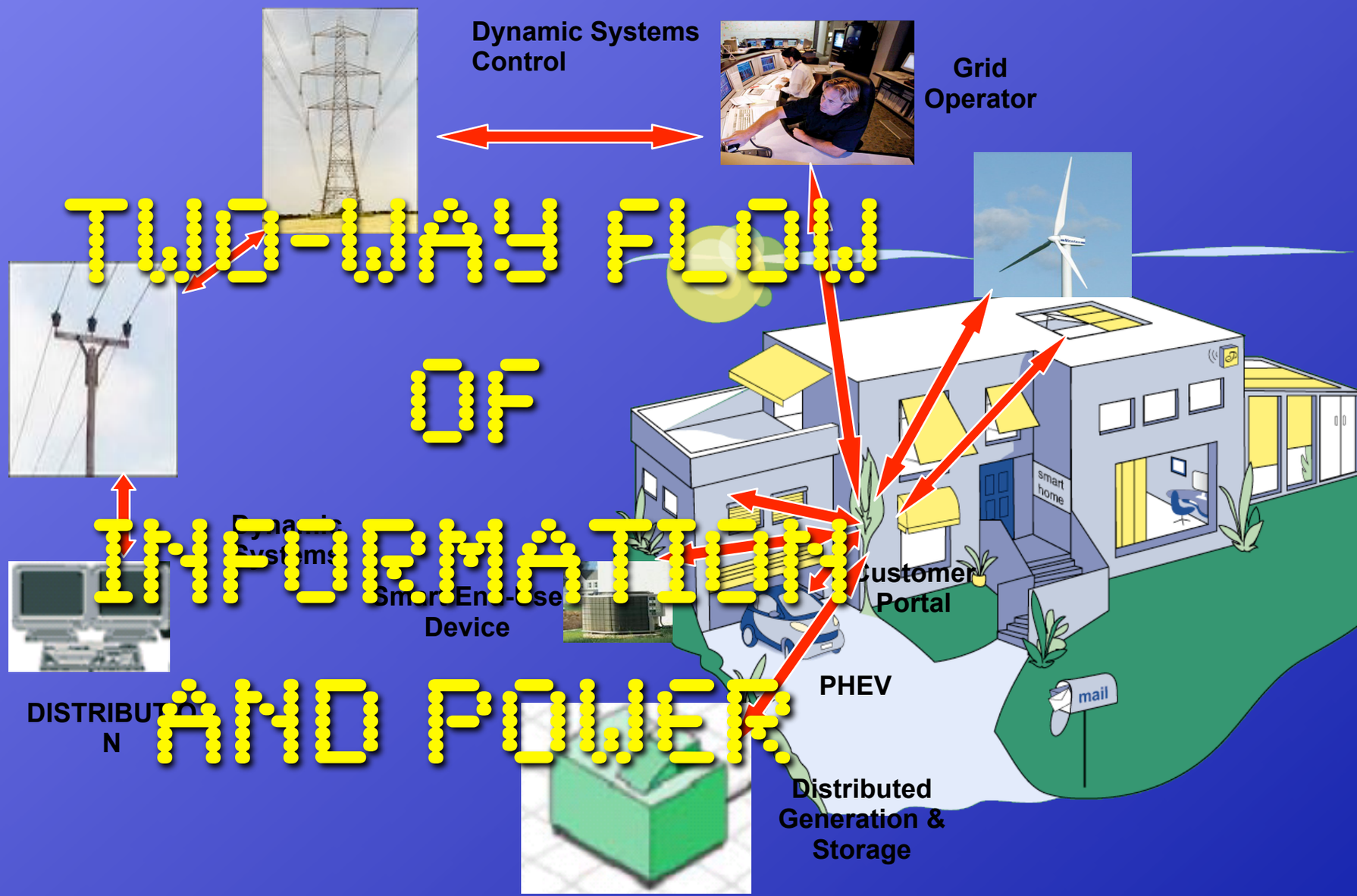
The Intelligent Grid System



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PHEV Benefits

GRID BENEFITS

PHEVs as Energy Storage

Fast Regulation

Improved Asset Utilization

Load Shaping

SOCIAL BENEFITS

Less CO_2 emissions

Less air pollution

Less petroleum use

Energy diversity

Vehicle-to-grid (V2G) potential

Lower "fuel" costs

Fewer fill-ups

Home recharging convenience

Fuel flexibility

CONSUMER BENEFITS

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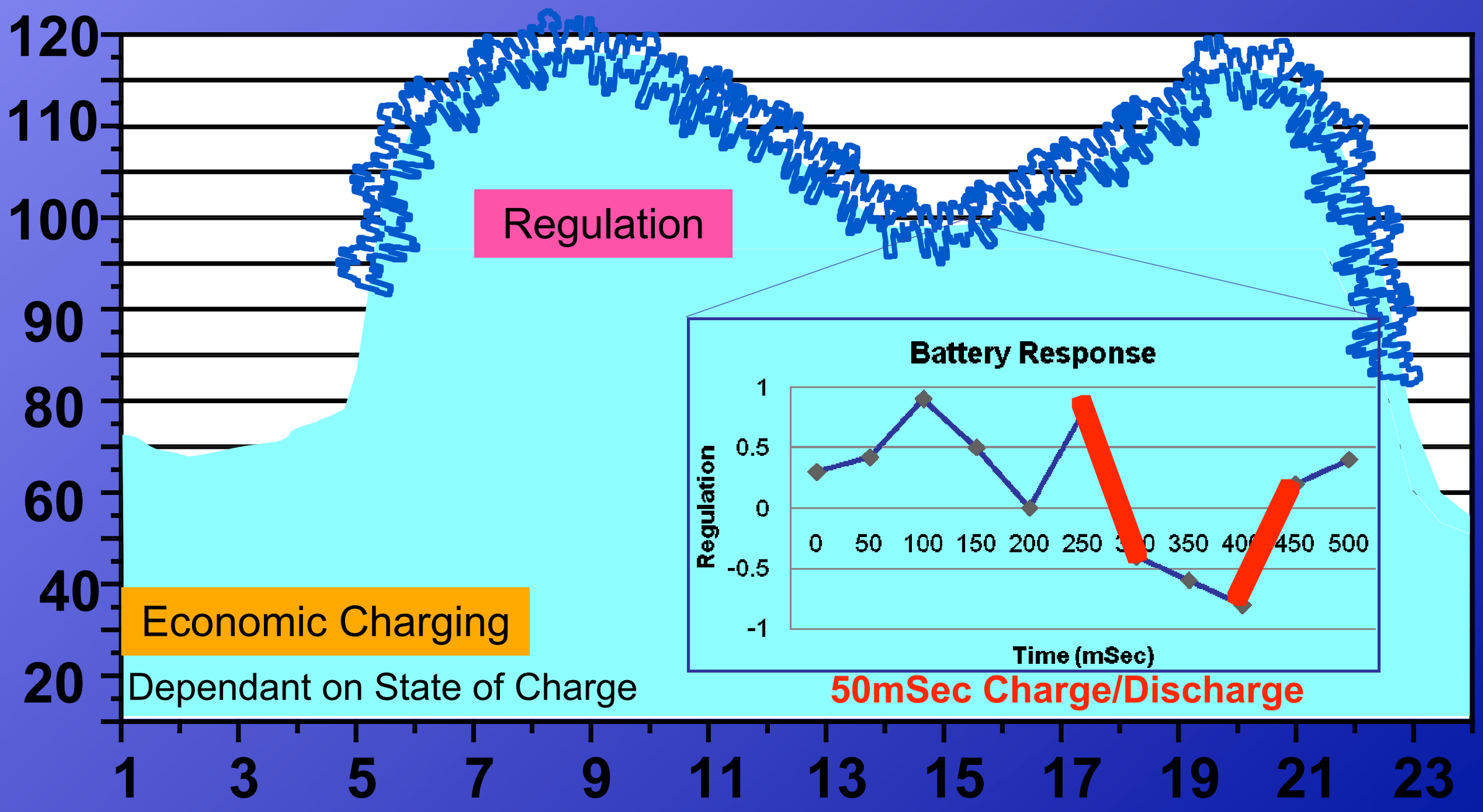
Grid Benefits
Regulation vs. Economic Dispatch



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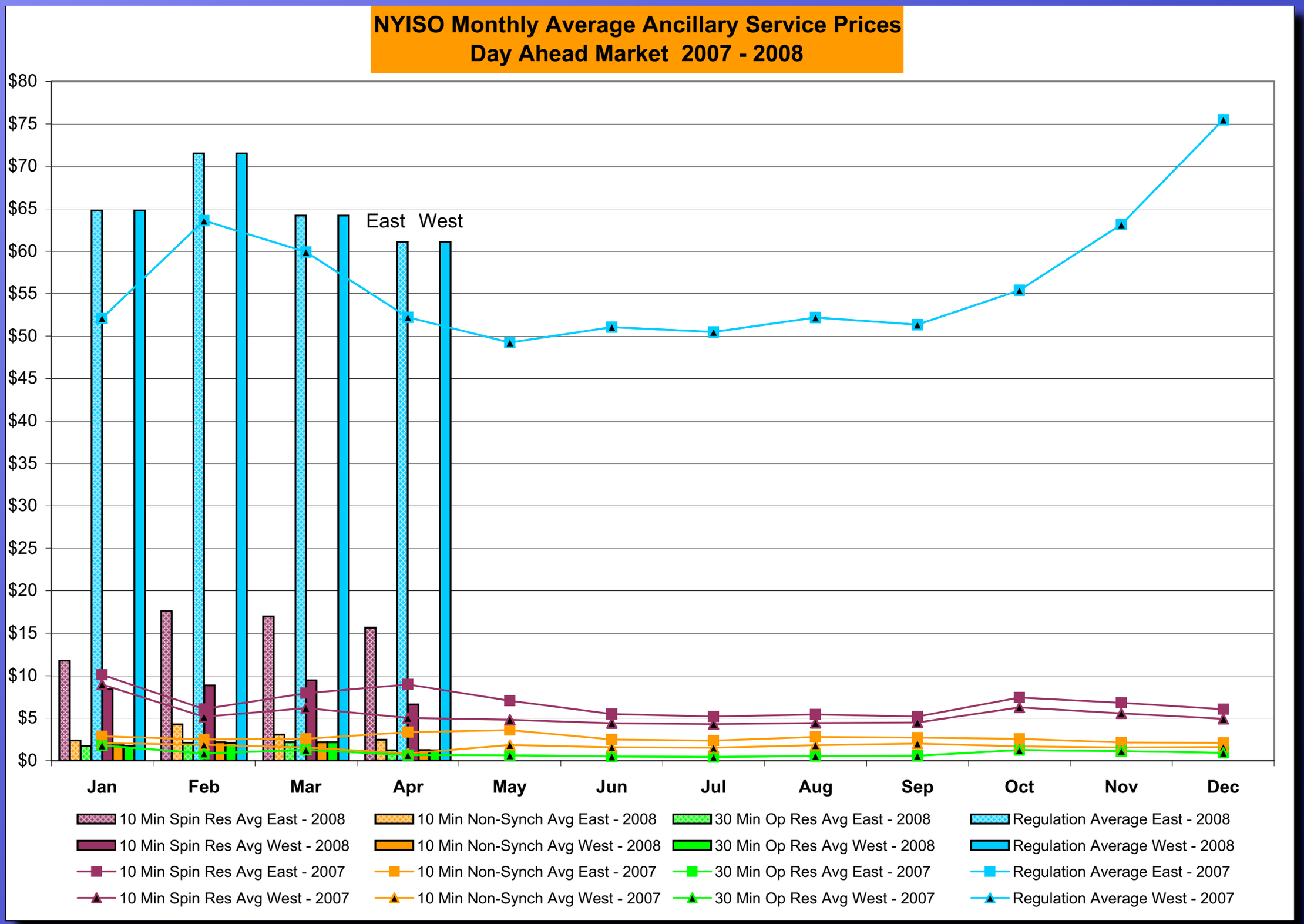
Fast Response Grid Services Are Valuable



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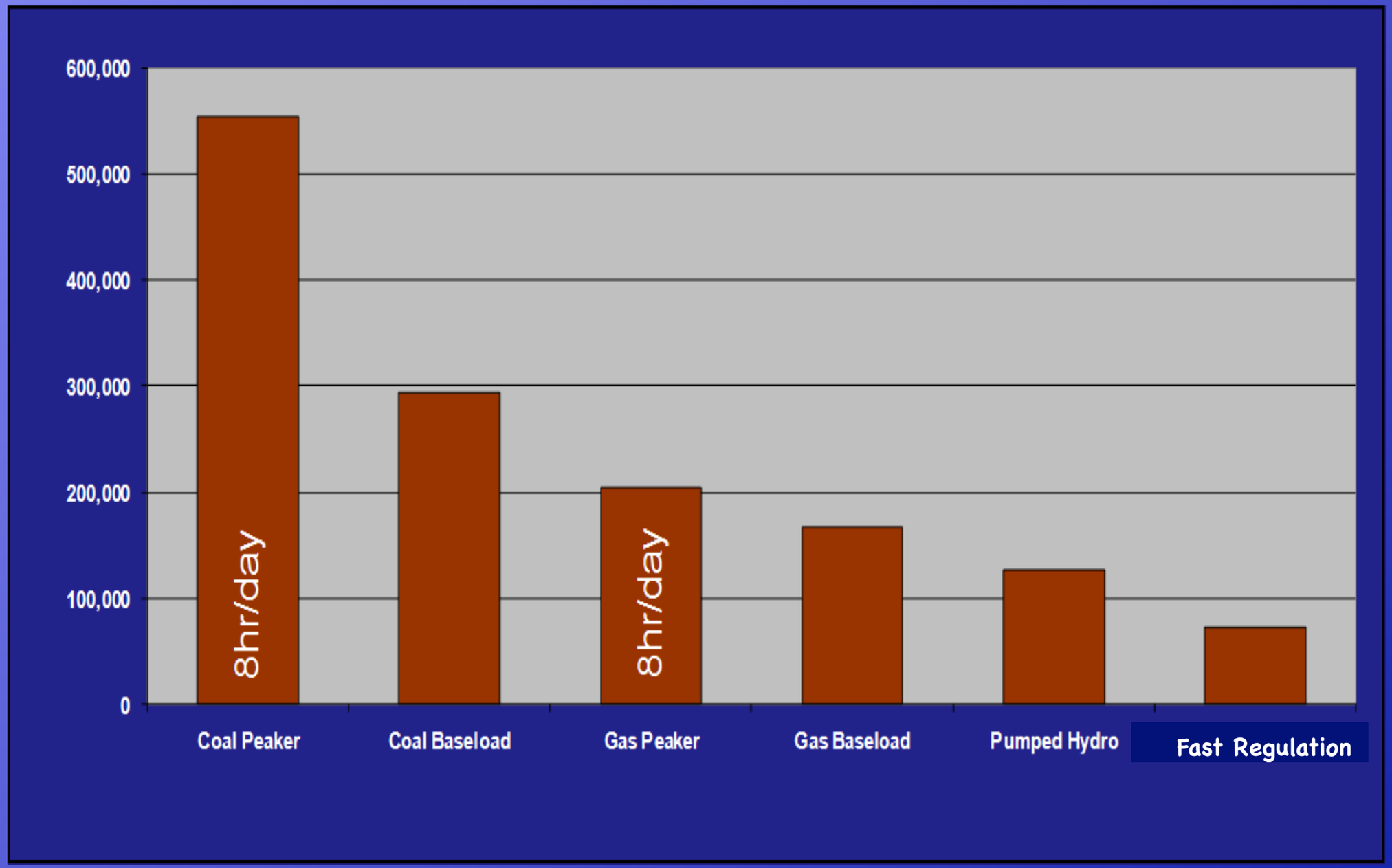
CO_2 Benefits of Fast Regulation Service

From KEMA study: 20 MW of Regulation over 20-year operating life



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Pepco Holdings Inc
V2G
Vehicle-to-Grid Power (V2G)
How does it work?
Summary
Applications
Elements needed for V2G

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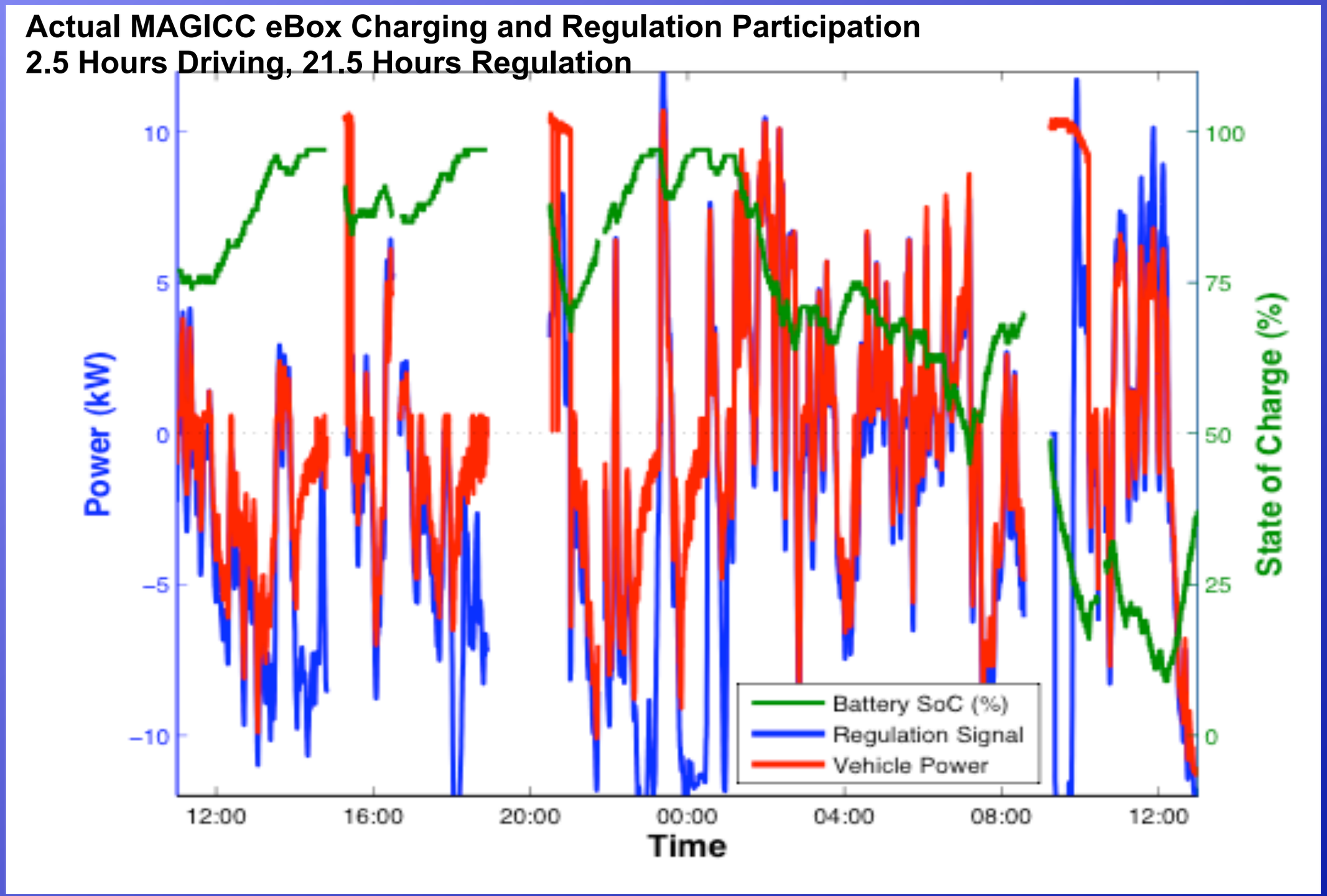
V2G for Grid Regulation Services



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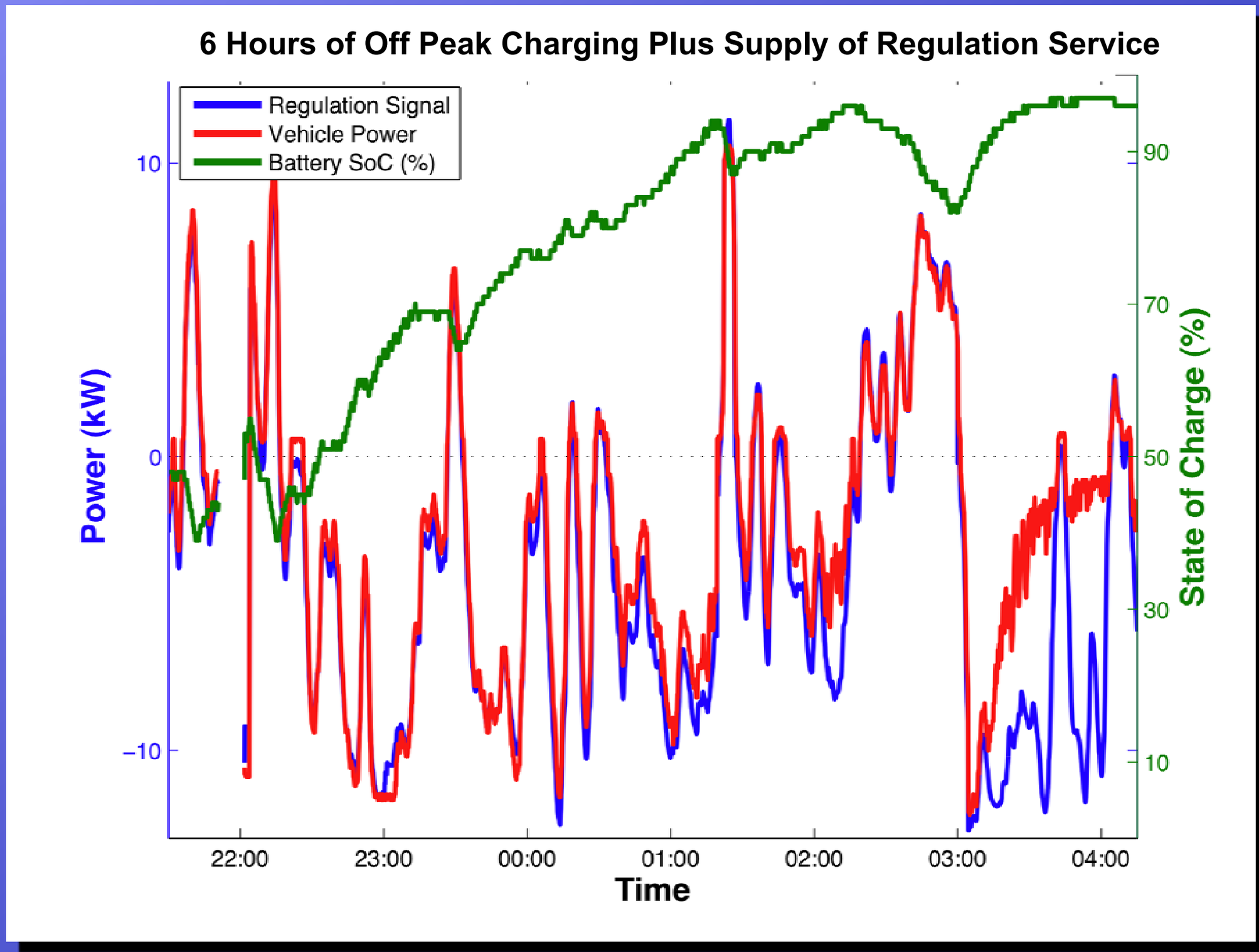
V2G for Grid Regulation Services



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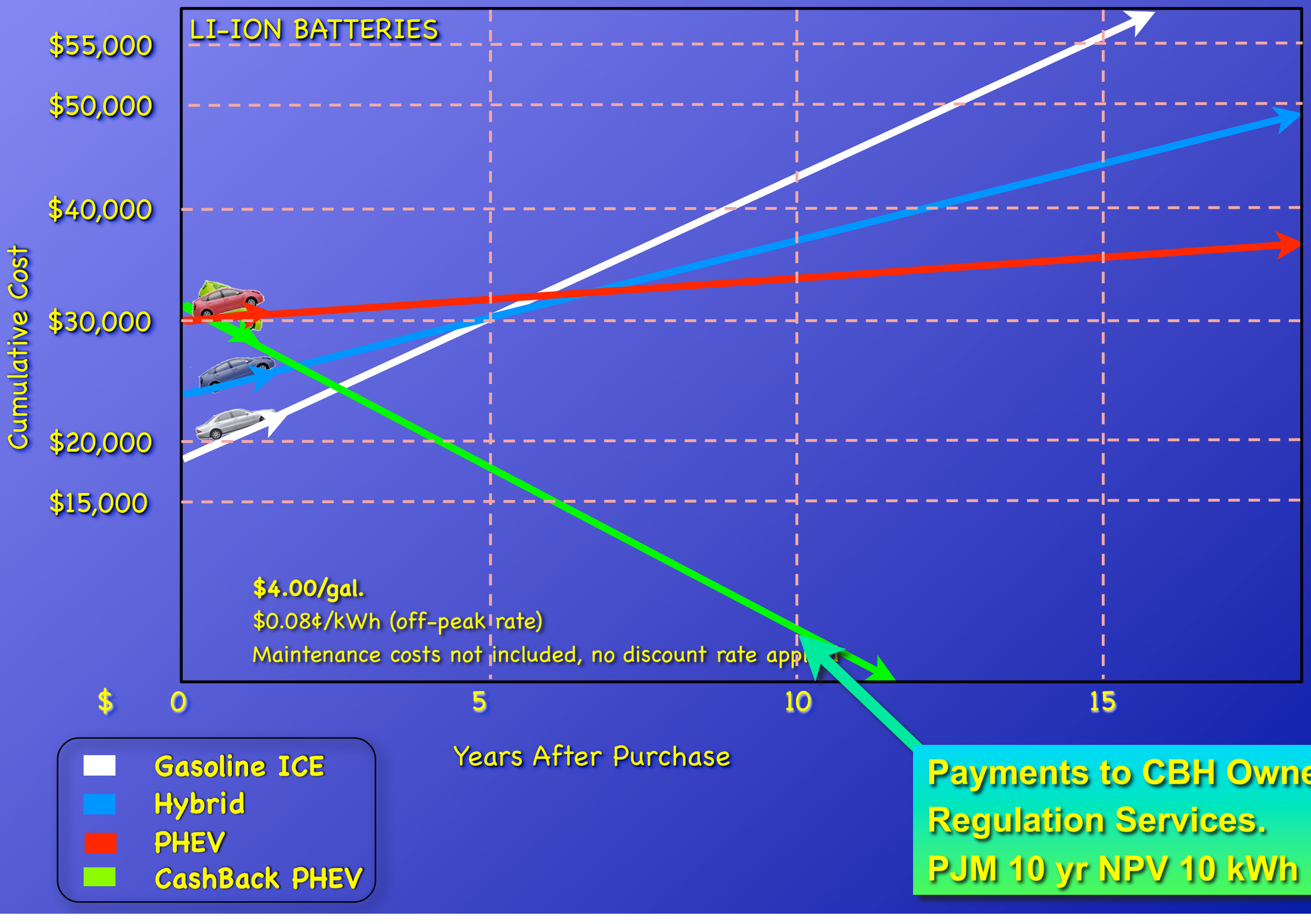
The “Cash Back” in CashBack Hybrid



Conclusions

- **The CASHBACK Hybrid :**
  - **Will Save Their Owners Money on Their Total Energy Bills**
  - **Will Cost Less Than a Conventional Gasoline Car in 3 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**

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Thank You!

Questions?

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