

Charging Ahead - Deriving Value from EVs for All Electric Consumers

Q4 CAE Stakeholder Challenge:
Mobility & Transportation

November 6, 2019

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Transportation Electrification

- Increasingly likely
- Opportunities and challenges
- Need for proactive policies
- Start with customer-focused principles
- Huge societal benefits if we get it right



Key Principles

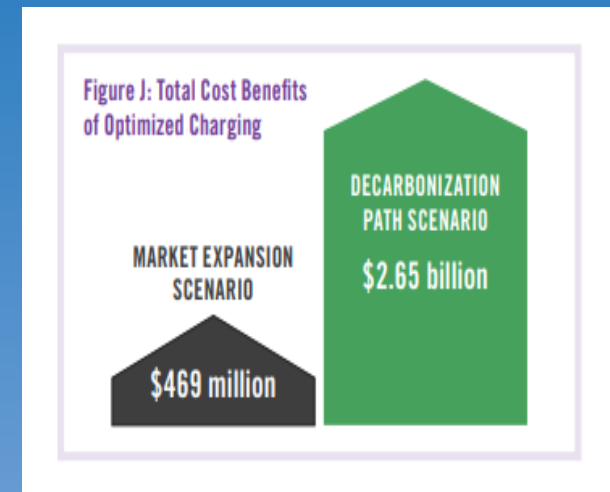
Optimize charging patterns to:

- Improve load shape
- Prevent peak demand increase
- Integrate variable energy resources
- Maximize grid value
- Advance equity



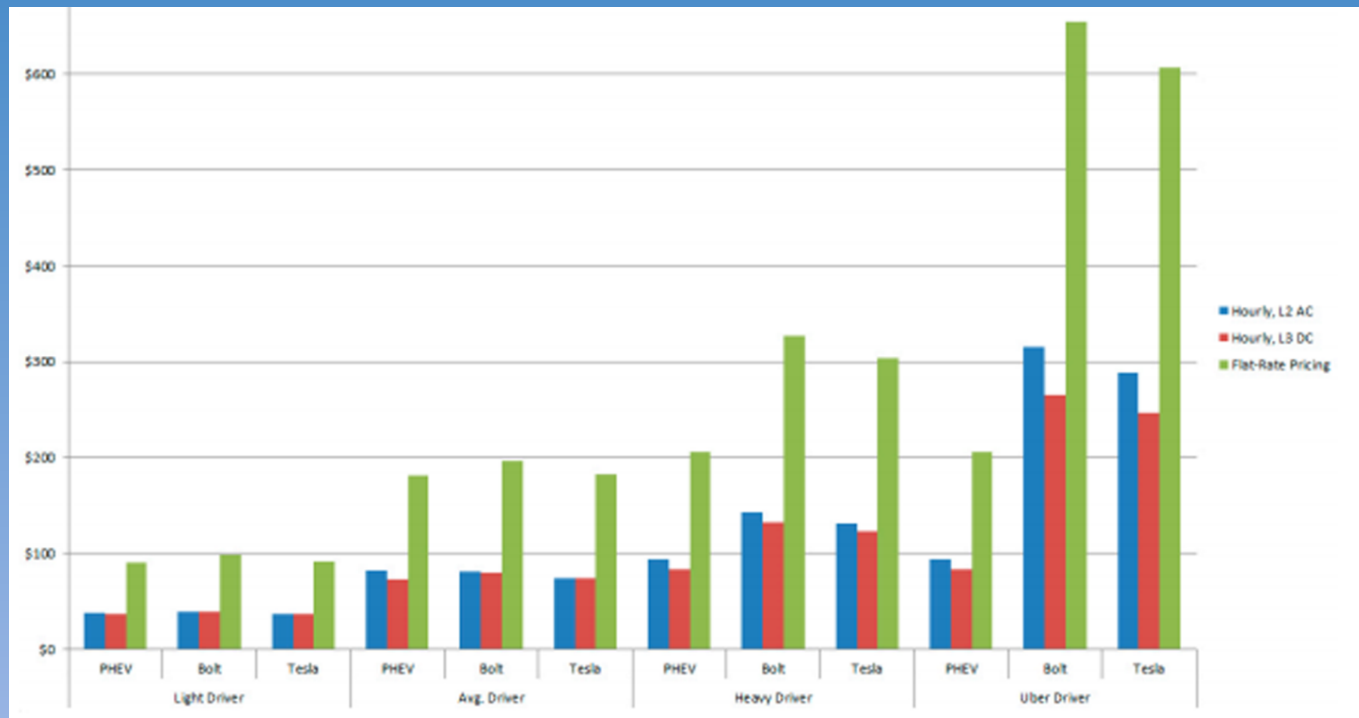
Charging Ahead: Key Findings about Optimized Charging

- Up to \$2.6 billion in cost benefits
- Cumulative by 2030
- Illinois residential consumers
- From lower energy/capacity prices
- And added dist'n revenue
- Just electric (not enviro/transpo)



Charge for Less: Key Findings

- Large savings from hourly pricing
- 2016-2017 real data
- 12 representative scenarios
- 52%-59% savings over average rates



Recommendations

- Opt-out dynamic pricing for EV charging
- Cost/benefit analyses
- Pick the low-hanging fruit
- Create the right incentives
- Too much attention on “who owns what” question
- Not enough on guaranteeing system benefits
- Make sure all communities benefit
- **Optimized charging should be key focus**



Problem Statement

For mobility and transportation to enable a carbon-free Chicago, we must first address **a strategy for optimized charging to protect low income, vulnerable consumers and communities.**

For more information see:

- bigenergydata.info
- TheEvAccord.com
- Clean Energy Jobs Act
- Nasuca.org- 6/24/18 EV resolution

Thank you!

