



Edison Electric Institute

Power by AssociationSM

Utility Perspectives on PEV Readiness: Electricity as a Transportation Fuel

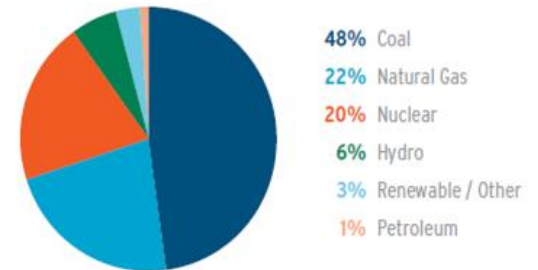
Rick Tempchin

Executive Director of Retail Energy Services
Edison Electric Institute

Electricity as a Transportation Fuel

- Domestically Produced
- Diverse Supply
- Existing Delivery Infrastructure
- Spare Capacity
- Inexpensive

FIGURE 1L U.S. POWER GENERATION BY FUEL

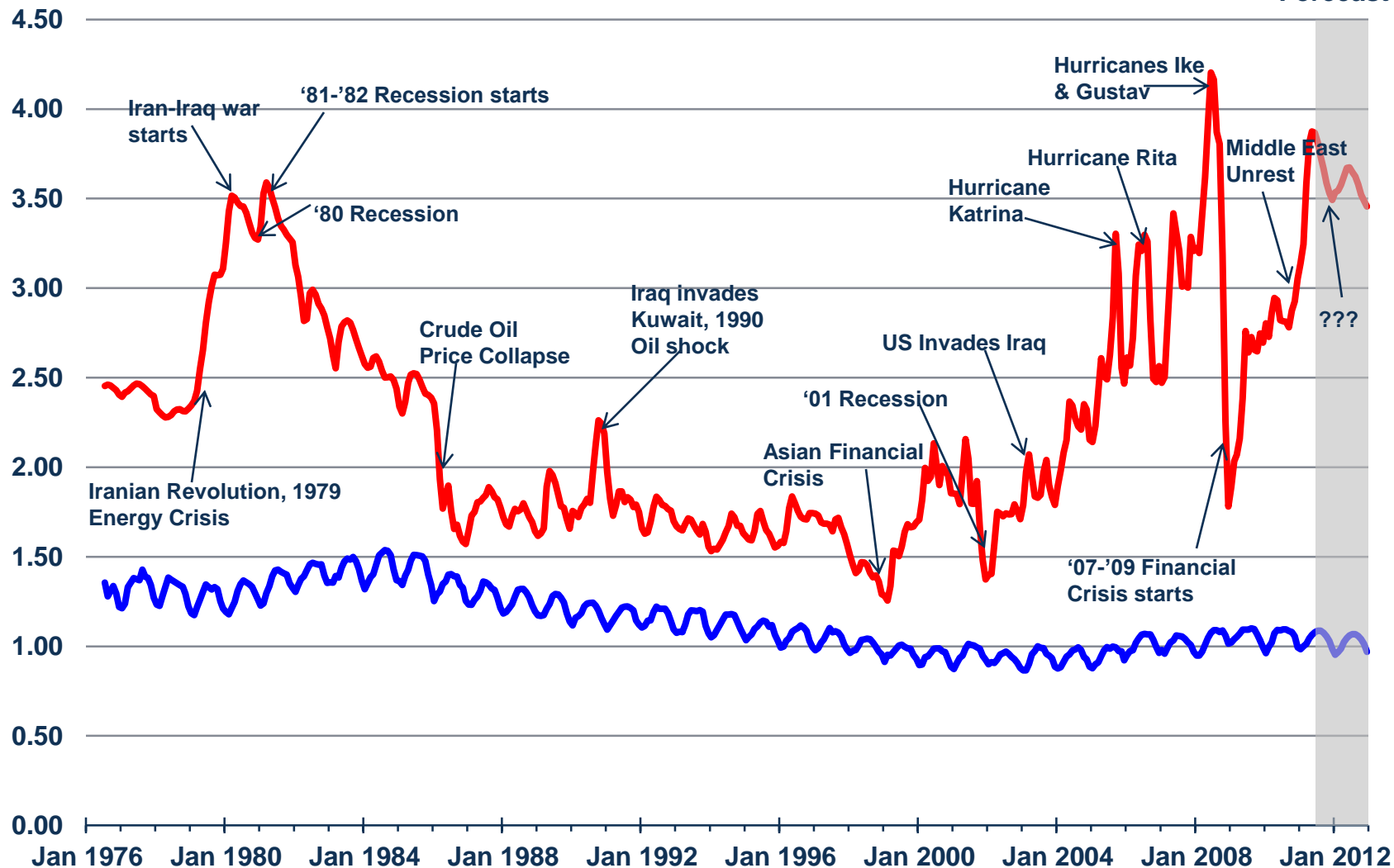


Source: DOE, EIA



Monthly Motor Gasoline Retail Price v. Monthly Electricity Price in \$/gal Equivalent*

Dollars per gallon (equivalent)



Already Here & Beyond the Road



Rail



Truck Stop



Forklifts



Seaports



Airports



NEVs

Anticipated Commercial Passenger PEV Launches



2011 Chevrolet Volt –
10,000 (\$42k)

2011 LEAF Launch –
10,000 (\$33k)

Roadster since 2008 –
over 1,800 sold (\$109k)

All prices are base model MSRPs before federal, state, local, or employer incentives. Leasing options are typically available and attractive (\$350/mo for Volt or LEAF currently).

2012 Volt production
to 45,000 (\$40k)

10,000 more LEAFs
(\$35k)

Focus Electric Launch
– 19 States

i Launch (\$27k)

Active E, Mini E
Launch - 2012

Karma Launch
(\$100k)

CODA Launch
(\$40k)

2013 Volt production
up to 100k (<\$40k)

2013 LEAF production
up to 100k

C-Max ENERGI Launch

Model S Launch –
20,000/year (\$57k)

Model X Launch
(\$35k)

Plug-in Prius Launch –
15 States

New RAV4 EV Launch

With many more coming by 2013:

2010

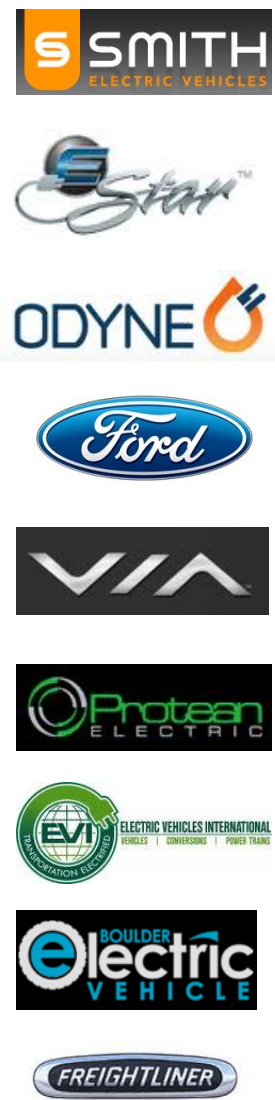
2011

2012

2013



Anticipated Commercial Fleet PEV Launches



Newton BEV Truck Available in many applications

Navistar eStar BEV Truck Available

PHEV Med. and Heavy Duty Trucks (including Bucket Trucks) Available

Transit Connect Electric Van Available

EREV Pickup Trucks Available

EREV SUVs & Vans Coming Soon

BEV F150 Conversion Coming Soon

PHEV Applications in the Future

EREV Bucket Truck and BEV Med. Duty Truck & Delivery Van Available

Purpose-built BEV Trucks, Vans, and Shuttles Available

Enova/Freightliner PHEV Truck Coming Soon

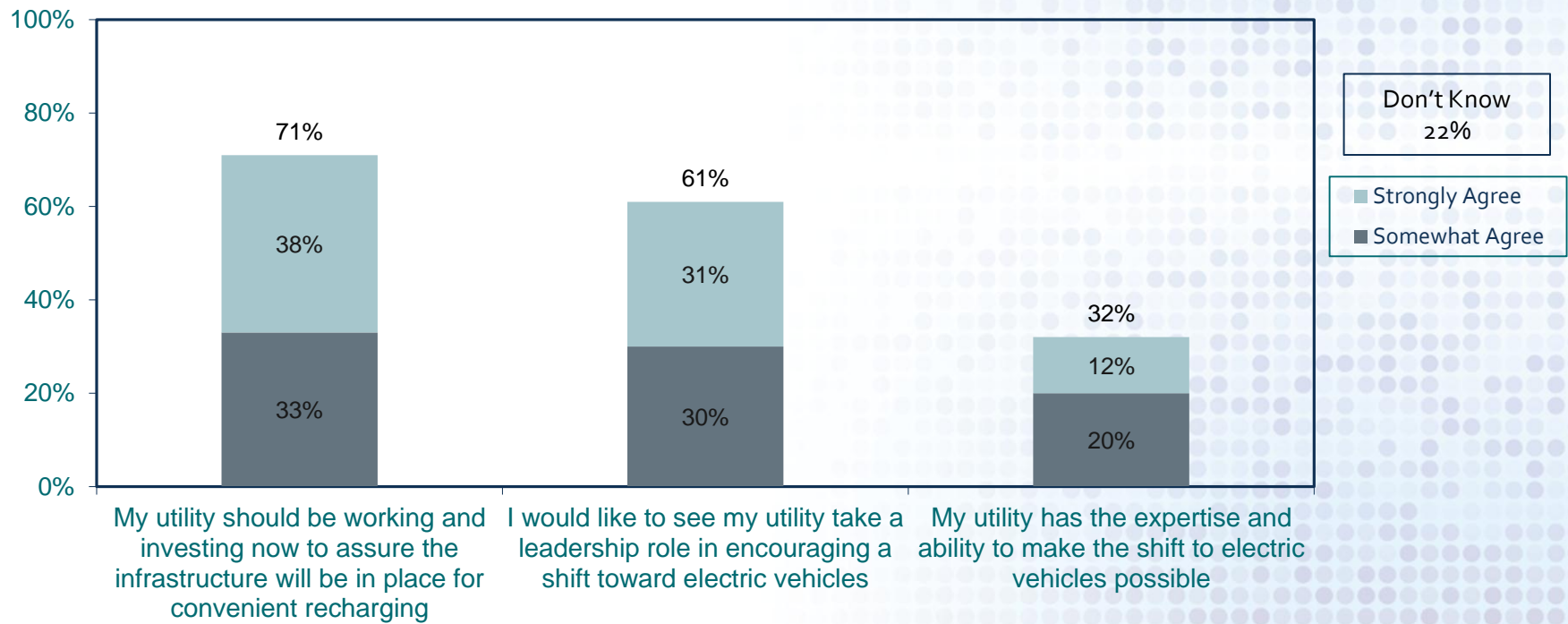
Organizations Already Incorporating These:

that was easy.™

Member Companies

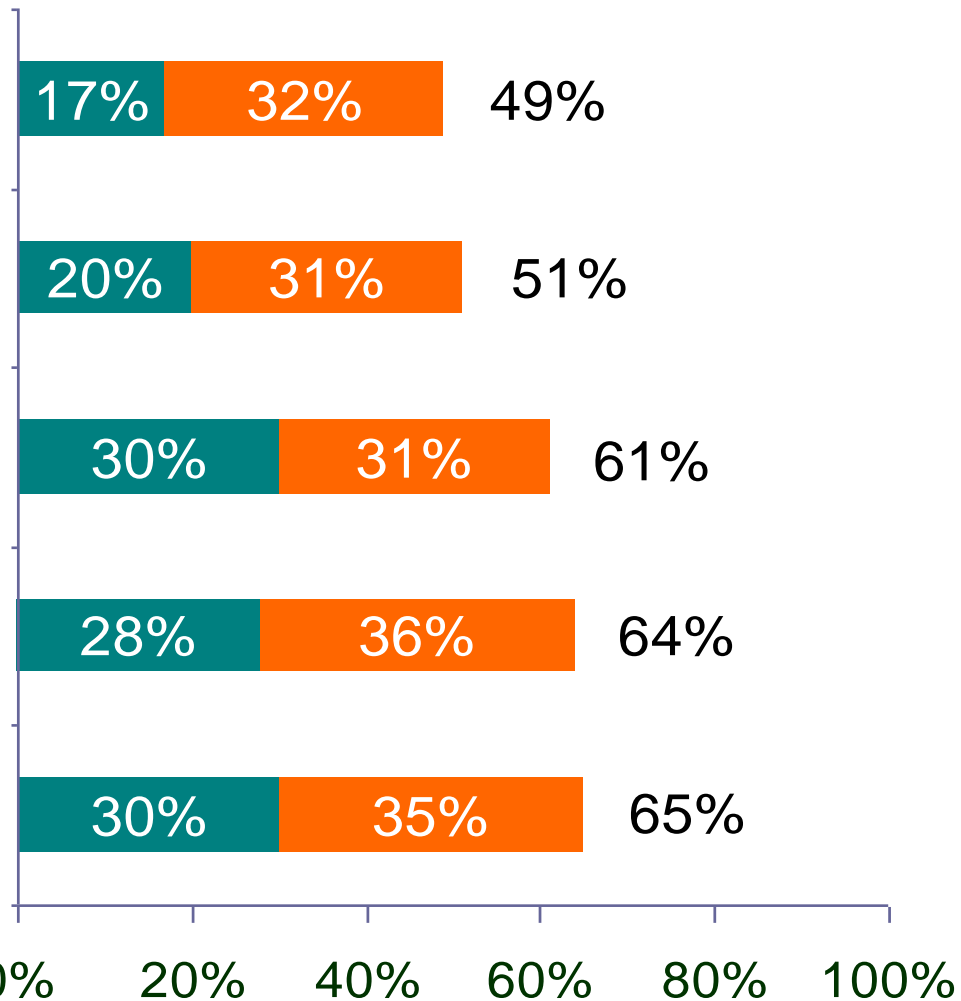
Consumer Expectations of their Utility

Most feel their utility should be planning now for EVs and taking a **leadership role** in the shift toward electric vehicles. However, fewer agree that their utility has the expertise and ability to make the shift happen.



Level of agreement with role utility should play in encouraging development of EVs

My utility should make owning an EV more convenient and feasible by installing public chargers.



n=989



Strongly agree



Somewhat agree

Market Strategies International E2 (Energy + Environment) Research Program. Wave 1 2011 completed May 19 through June 2, 2011. E2 respondents are recruited via an online panel to reflect key characteristics of the US population. Online panels do not yield a random probability sample; as such, it is not possible to compute a margin of error or quantify the accuracy of projections.

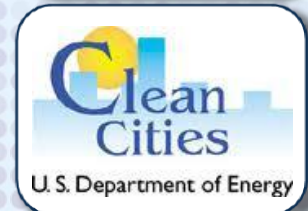
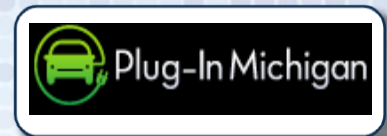


What Utilities Are Doing

- Investments in Charging Infrastructure
- Incorporating PEVs into Company Fleets
- Processes that Support Customer Charger Installations
- Outreach and Education
- Customer and Employee Incentives
- Collaborative Projects and RD&D
- Ensuring Grid Readiness

Collaborative Projects

- State, Local, and Regional collaborations such as:
 - Plug-In Michigan
 - California PEV Collaborative
 - Project Plug-IN
 - Project Get Ready cities (11 in U.S.)
 - Clean Cities Coalitions (85)
 - The EV Project & ChargePoint America
- Research, Development & Demonstration Projects
 - Partnering w/ EPRI, GM, Toyota, Chrysler, Nissan, & others



Strong Public Policy and Regulation

- Advocating in those areas where there will be an impact on the regulatory paradigm
- Filling the gaps in current legislative and regulatory policies and advocacy
- Filling the gaps in information and educational needs

Customer Expectations & Enthusiasm

