
Creating a Smart Energy Roadmap: Using Data to Drive Efficiency

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SPEER Annual Summit

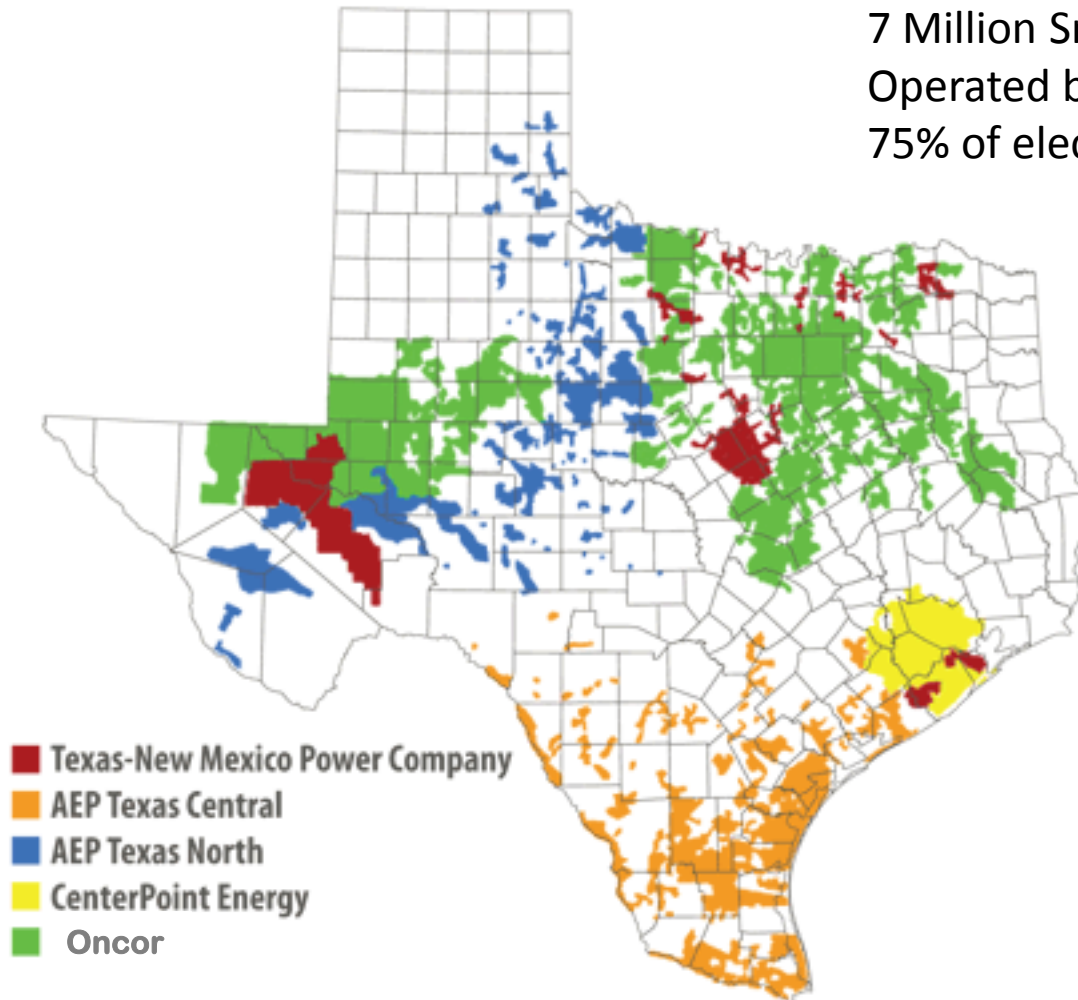
April 14, 2015

Smart Energy Roadmap

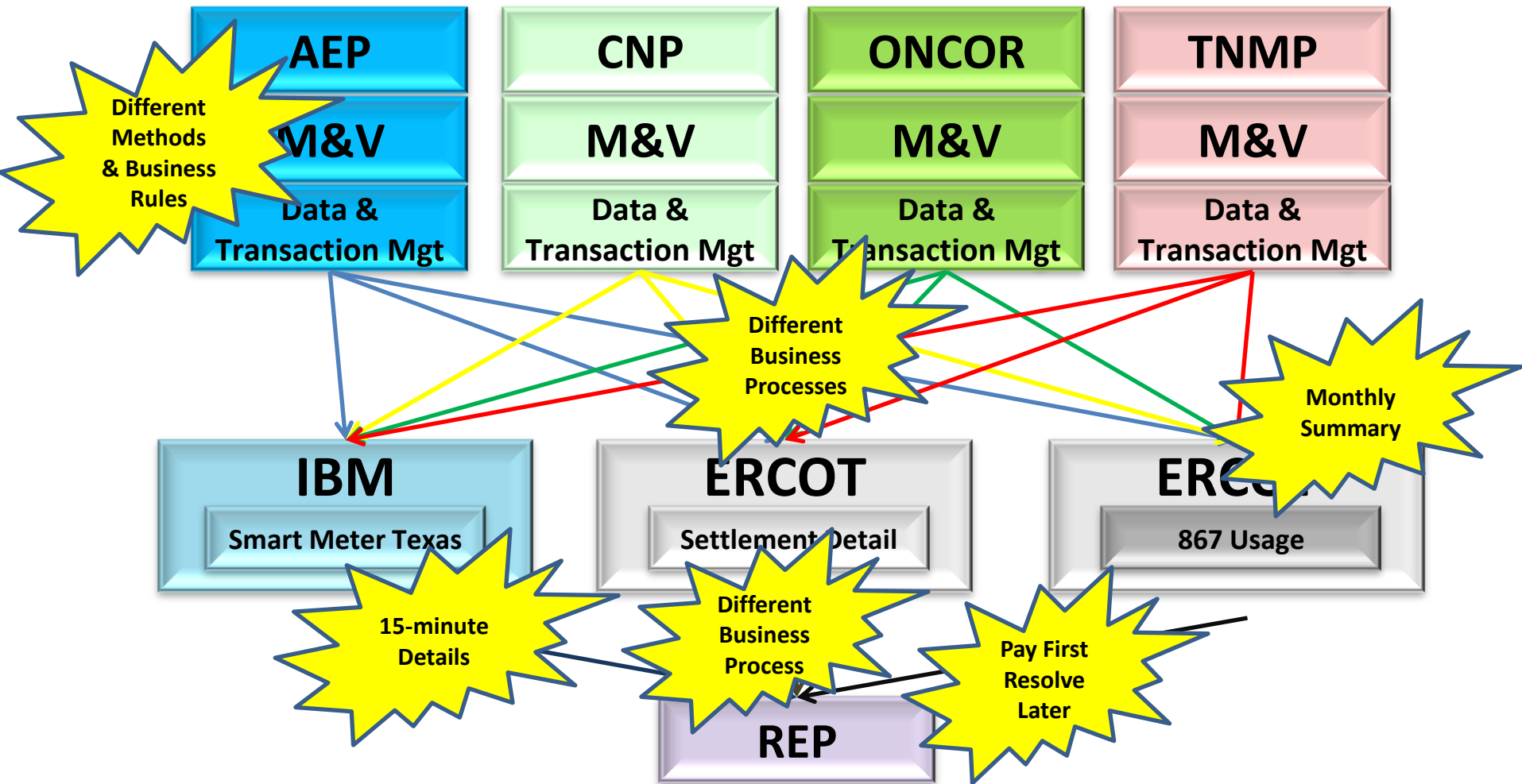
- Follows the Update on Smart Energy in Texas (July 2014)
- Roadmap circulated to approx. 100 reviewers including TDUs, REPs, third parties, DR providers, aggregators, brokers, and consultants, etc.
- Texas is a leader. Texas can do much more.

Smart Meter Texas

7 Million Smart Meters Deployed
Operated by Transmission Companies
75% of electricity load in Texas



ERCOT's Smart Meter Challenge



Six Key Recommendations

Move SMT to ERCOT

- Increase data consistency and improve service levels
- Supported by REPs, TDUs, and third parties.
- Key questions about third party access and direct customer access remain.

Count customers using data

- No one can say with any certainty how many customers use their data.
- ERCOT gathers data on time-of-use and peak rebate, but not pre-pay, usage alerts, etc.
- Can be done in way that protects proprietary info.

Use smart meters to verify savings

- Efficiency from competitive services could contribute to Texas' compliance with air quality standards.
- Verification can be difficult, but interval meter data makes measurement possible.

Roadmap, continued

Make it easier for customers to share data

- Numerous third parties reported that sign up was so difficult that they gave up.
- Federated access can be done safely and securely.

Educate consumers of smart energy's potential

- No money currently spent by utilities or PUCT.
- Leverage existing education (PowerToChoose, Power to Save, conservation alerts, etc...)

Create better opportunities for loads in ERCOT market

- Market continually evolves and improves
- Meter data allows innovative new ways to enhance competition of the market, if load has a path to participate.

Smart Meter Texas Core Functionality

- Data Repository
- Meter Data Access
- Third Party Access
- HAN Functionality
- Education

If SMT goes to ERCOT, how do the customer facing services continue? A series of meetings are planned at PUCT, including one on April 17 to explore these questions...

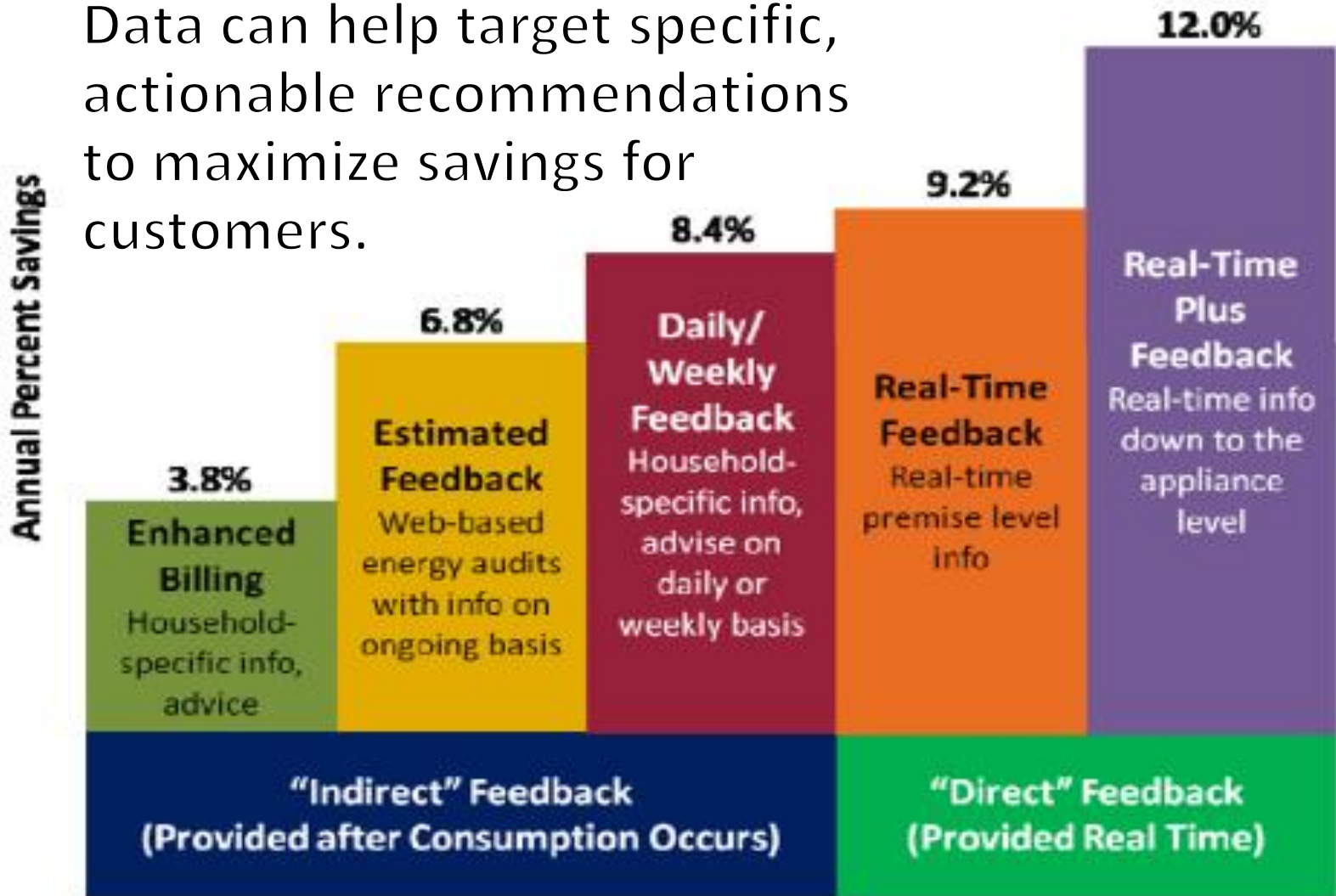
Additional SMT Challenges

- HAN Device Provisioning
 - These devices connect to TDSP smart meters.
 - Many HAN devices are outside of meter.
- End User web portal
 - Many REPs consider this competitive advantage
 - Green Button functionality exists today

Why Does This Matter?

Average Household Electricity Savings (4-12%) by Feedback Type

Data can help target specific, actionable recommendations to maximize savings for customers.



Based on 36 studies implemented between 1995-2010

Market Structure

Remunerating value for energy efficiency

– Residential

- TOU targeting peak load
- Smart thermostat, pool pump, water heater price awareness
- Battery, solar

– Commercial

- Monetization of demand response
- Distributed solar, storage

– Industrial

To see the draft Roadmap:

<http://eepartnership.org/intelligent-energy-management/>

Please provide input!

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backup slides

BIOs

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Successful entrepreneur developing marketable services for the wholesale and retail energy markets from start up to multi-million dollar companies. Led companies business and technical strategies by providing vision and steady, confident leadership. Driving efficiencies in the energy industry and within individual client companies by developing and implementing standards and model business practices in combination with sound technical solutions.