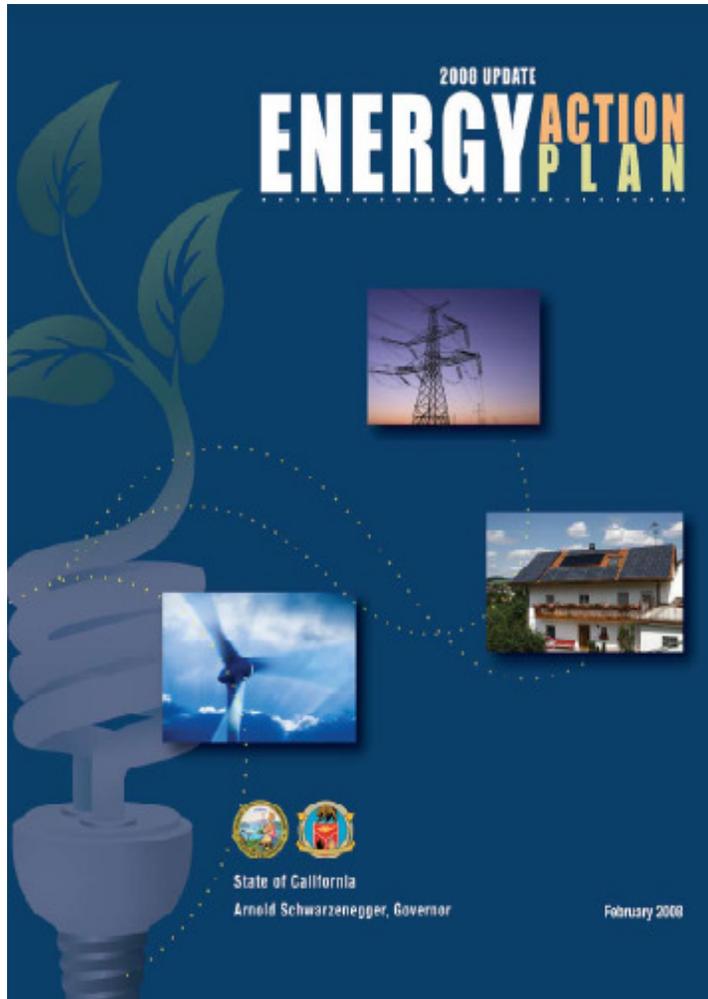




The Californian Approach To Smart Grid Policy - A Regulatory Perspective

Commissioner Dian M. Grueneich
California Public Utilities Commission
December 9, 2009

California's Preferred Resource



“Loading Order” of Energy Resources:

- Energy efficiency
- Demand response
- Distributed generation
- Renewable generation
- Cleanest available fossil resources

**California Public Utilities
Code Section 454.5**

Smart Meters: Full Deployment by 2012



Increase System Efficiency

- Enhance operating efficiencies and savings
 - Auto meter reading, outage management, improved forecasting, theft reduction
- Support billing, customer support, outage management
- Interface with Direct Load Control communication technology

Enable Customer Interface and Dynamic Pricing

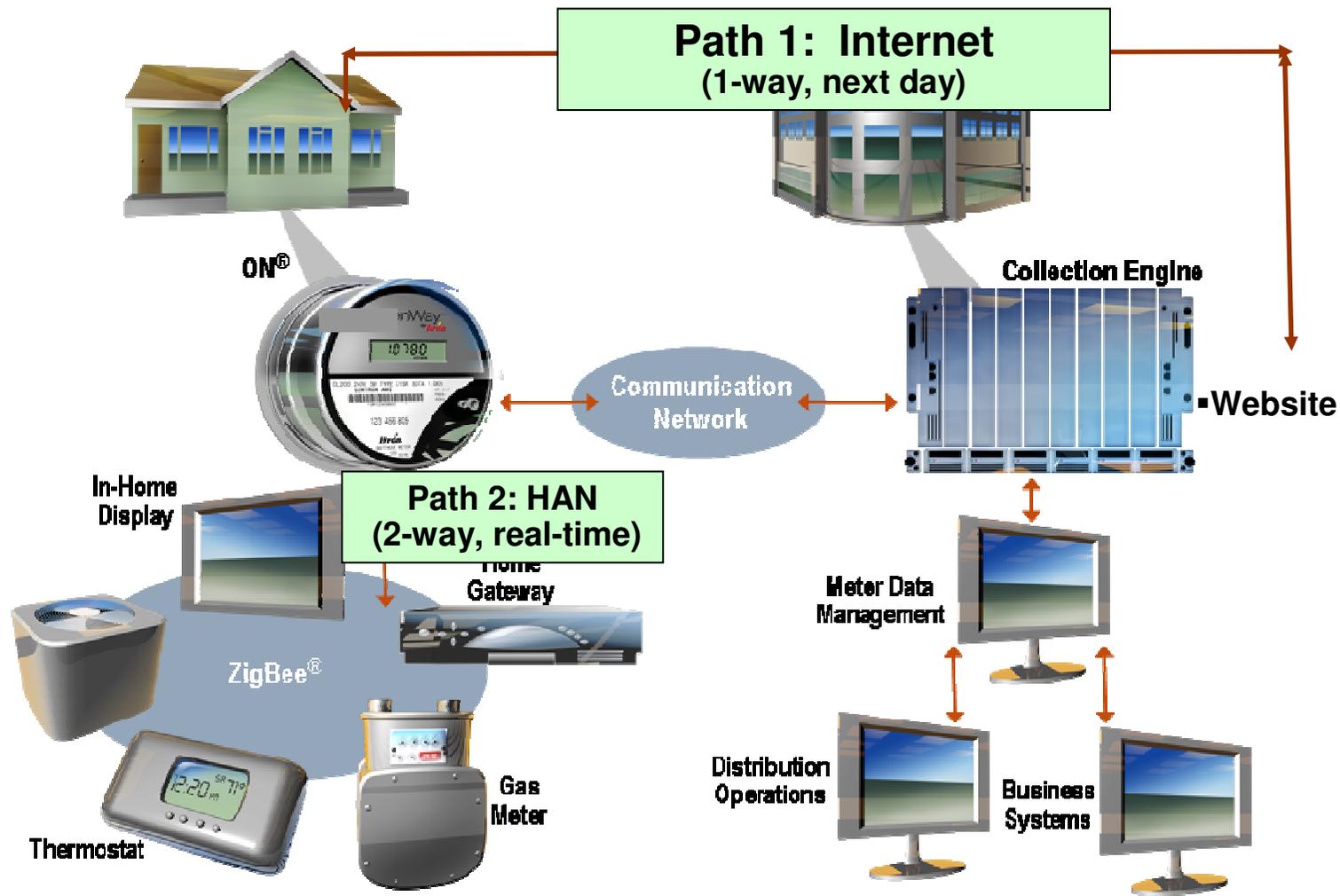
- Provide two- way communication with utility
- Provide customers with flexible access to usage data and prices
 - Understand usage patterns & their relationship to energy costs
- Track interval (e.g., hourly) usage data: measure, store, transmit
- Implement dynamic pricing

California Advanced Metering Synopsis

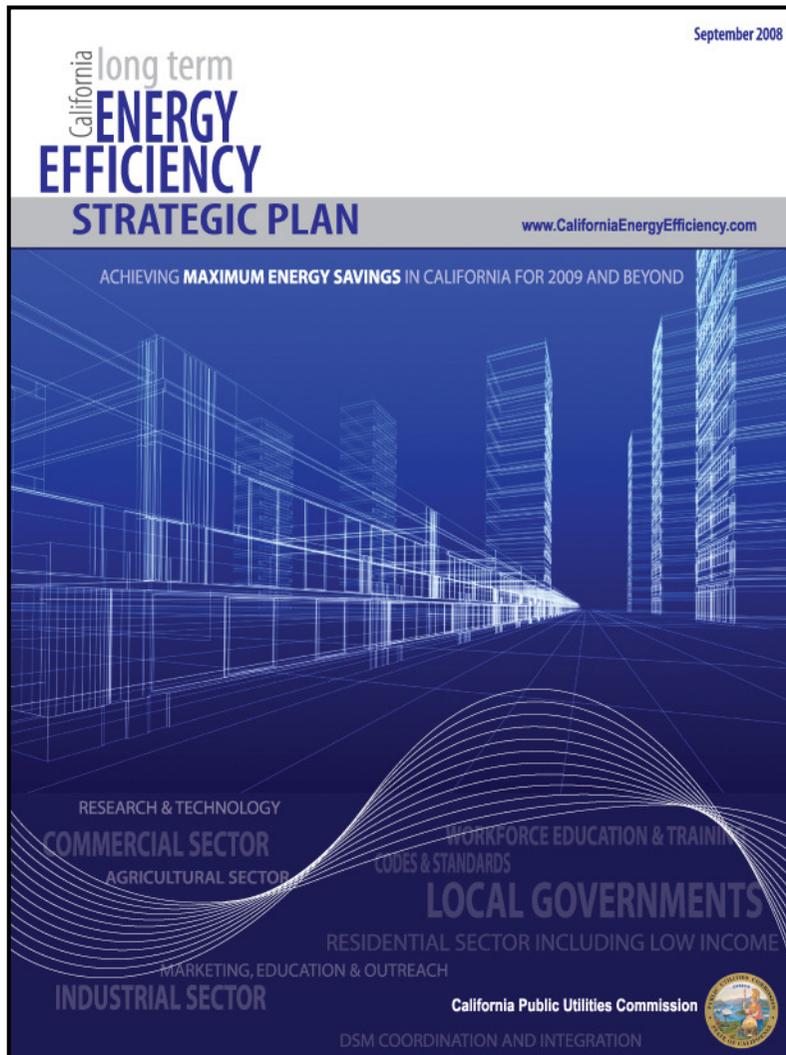


| | Pacific Gas & Electric | San Diego Gas & Electric | Southern California Edison |
|----------------------|------------------------|--------------------------|----------------------------|
| # of Electric Meters | 5.1M | 1.4M | 5.3M |
| # of Gas Meters | 4.2M | 0.9M | N/A |
| Costs Approved | \$2.3B | \$0.6B | \$1.7B |
| Deployment Schedule | 2006 to 2012 | 2008 to 2011 | 2009 to 2012 |

Usage Feedback & DR Signaling



Home Area Network (HAN) = Zigbee (a communication protocol)



The California Long Term Energy Efficiency Strategic Plan

www.californiaenergyefficiency.com

Integrated Energy Efficiency, Demand Response and Self-generation Programs