
BUILDING BRIDGES TO A LOW CARBON FUTURE

UNIVERSITY OF TEXAS ENERGY WEEK
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CPS ENERGY OVERVIEW

- Largest municipally owned, vertically integrated electric & gas company in the nation- 756K Electric & 334K gas customers
- Lowest rates among the top 10 largest U.S. cities
- Designated by Bank of America Merrill Lynch as the “Premier Credit Rating” in industry
- Innovative public private partnerships have yielded 548 jobs & \$622M in economic impact to-date in local San Antonio community
- \$11B in asset base, \$2.5B in annual revenue
- 14% of customers are on a Demand Response program which is equivalent a total of 135MWs
- San Antonio Ranks 6th in Nation for Solar Energy *



Vision 2020 transition's CPS Energy from a company that is highly dependent on power from traditional generation sources to a company that provides **competitively priced power based on a diverse generation portfolio.**

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THE CASE FOR LOW CARBON APPROACH

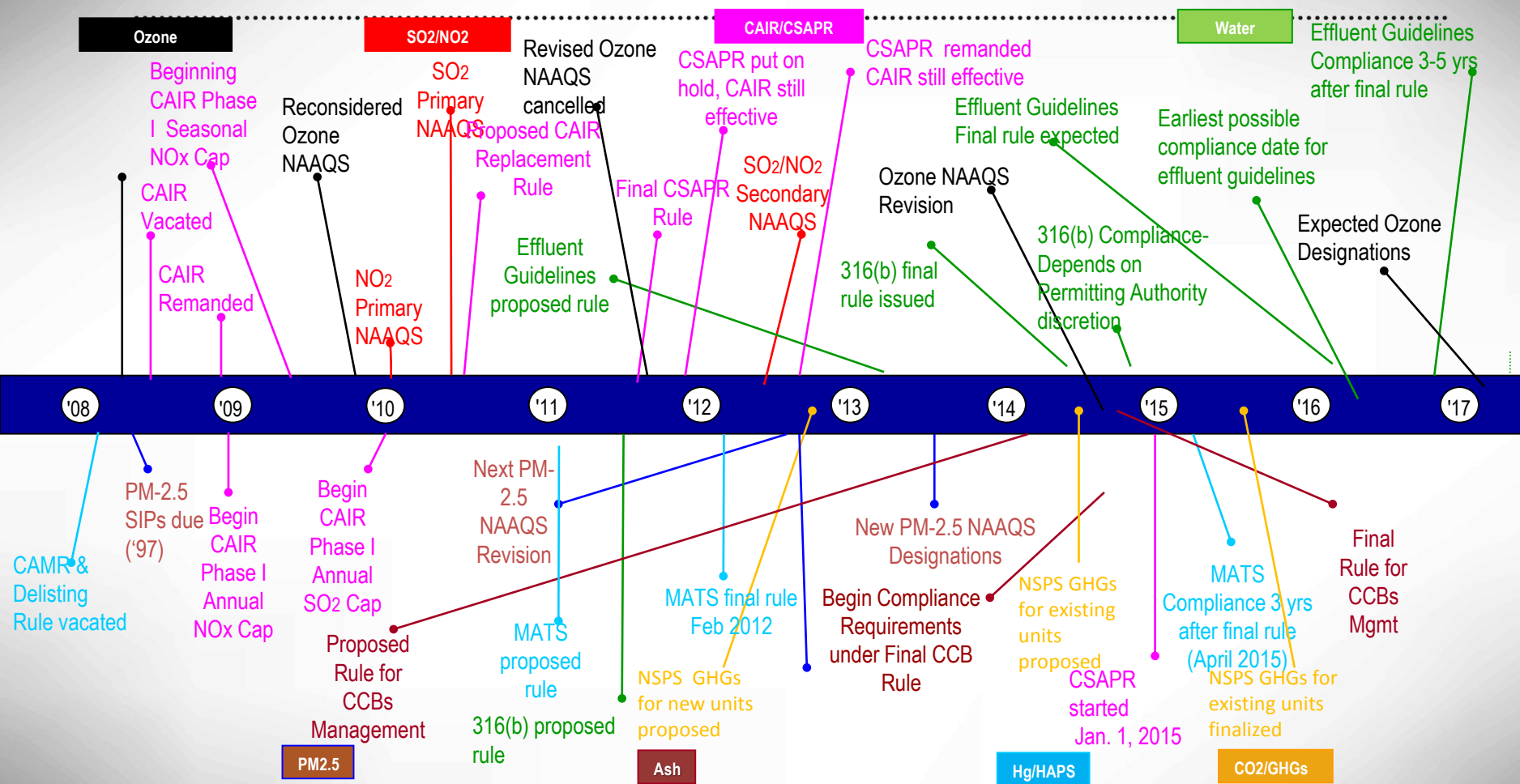
- Hyperactive Regulatory Environment
 - EPA Clean Power Plan (111D)
 - MATS
 - 316A&B
 - Methane
 - Market Dynamics
 - Declining Solar Prices / Grid Parity
 - Increased Scalability of Storage Technologies
 - Declining Natural Gas Prices
 - Demand Response / Lower Demand
 - Consumer Behavior
 - Flexibility
 - Control
 - Demographics
-



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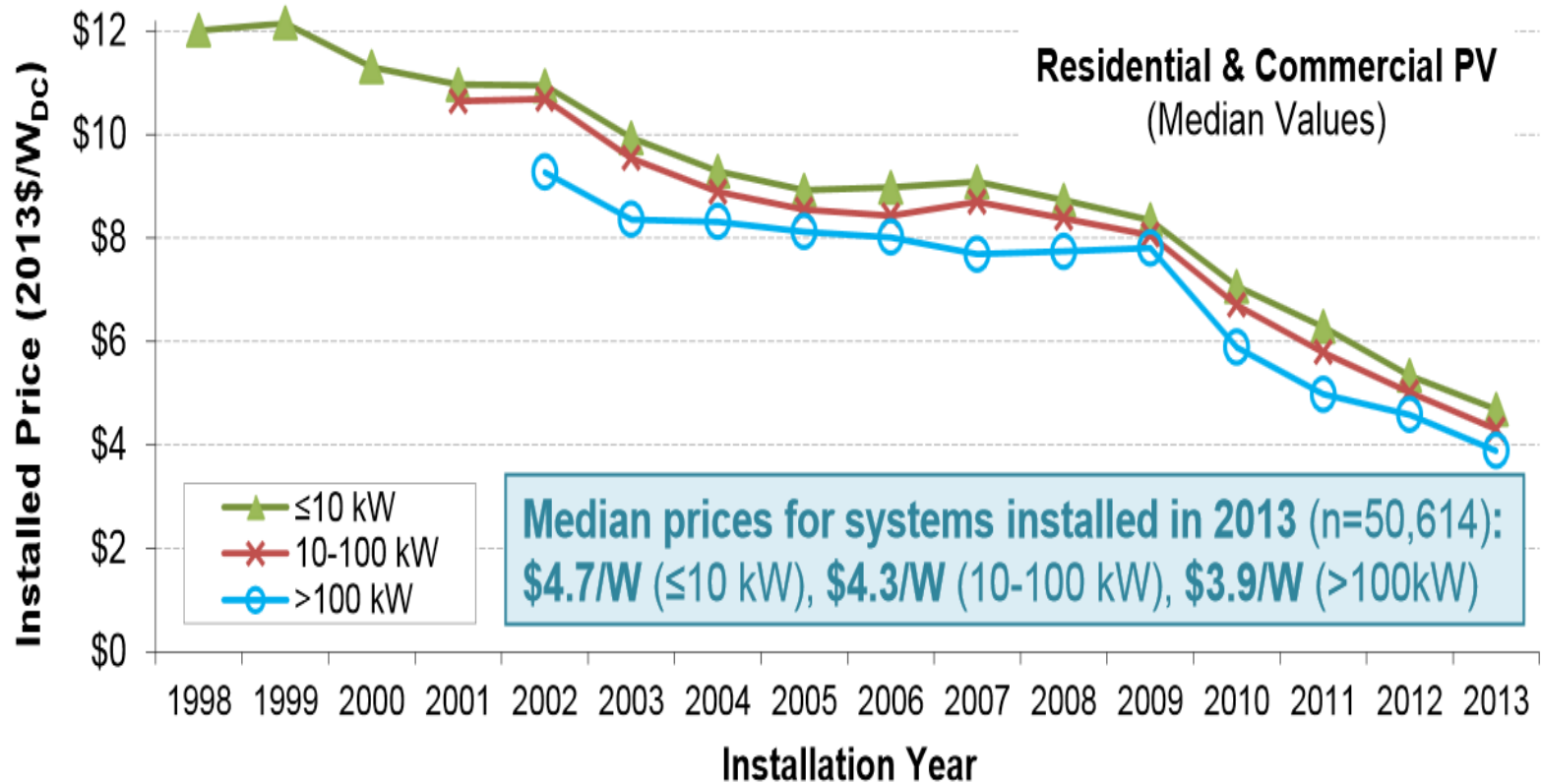


HYPERACTIVE REGULATORY ENVIRONMENT



Get ahead of the issues, rather than be defined by them.

MARKET DYNAMICS: DECLINING SOLAR COST/GRID PARITY



*Source: Lawrence Berkeley National Laboratory

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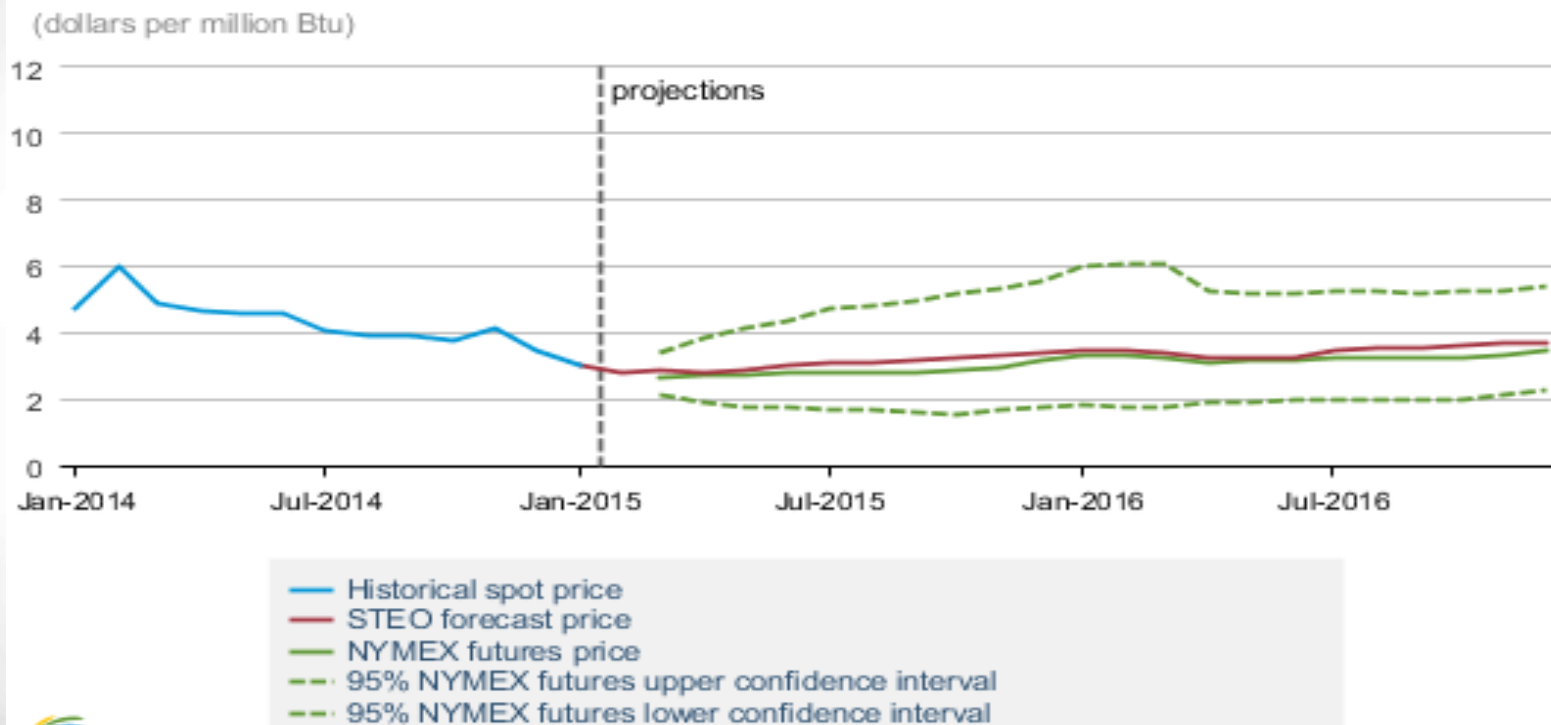
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MARKET DYNAMICS: NATURAL GAS FORECASTS

Henry Hub Natural Gas Price



Source: Short-Term Energy Outlook, February 2015

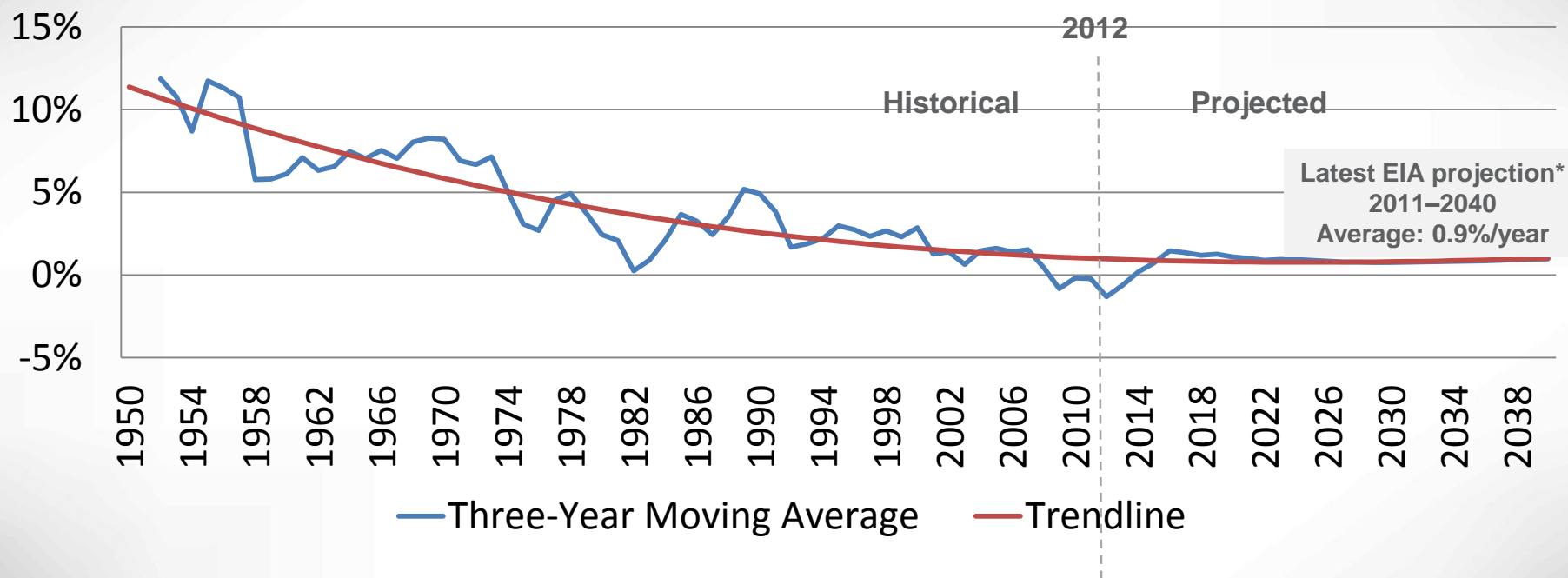
Note: Confidence interval derived from options market information for the 5 trading days ending Feb. 5 2015. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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MARKET DYNAMICS: DECLINING CONSUMPTION

**U.S. Electricity Demand Growth
(Annual and Moving Average in %)**

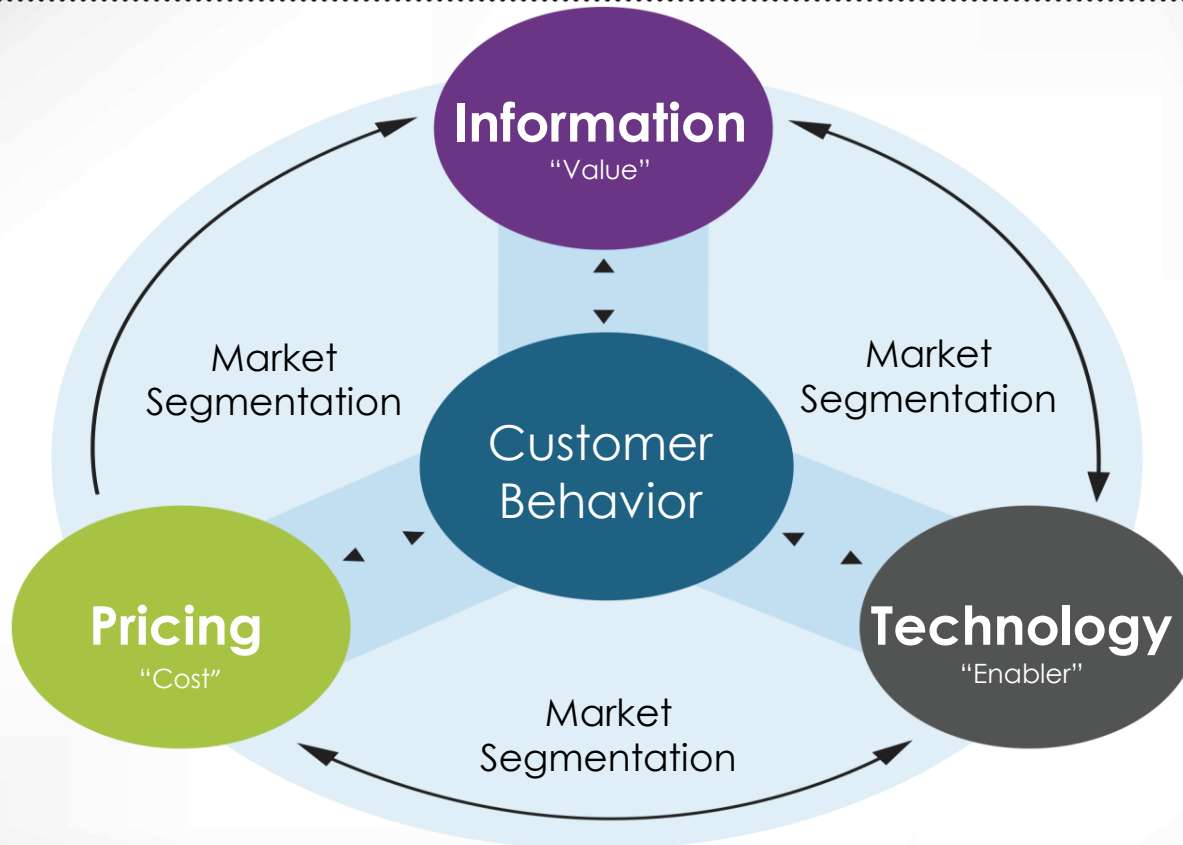


Primary product of electric utilities continues to decline year over year

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CONSUMER BEHAVIOR: MASS CUSTOMIZATION / PREFERENCES



Developing deeper insight into customer behavior, and anticipating changes, is critical to future market share

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THE CPS ENERGY STORY

- Diversity of Generation
 - Natural gas bridge fuel
 - Incremental integration of renewables
- Grid of the Future
 - Interoperability via Open Architecture
 - Data Analytics
- Public Private Partnerships
 - Technology/Innovation
 - Economic Development Education
- Human Capital Investment
 - Training & development
 - “De-bureaucratizing”



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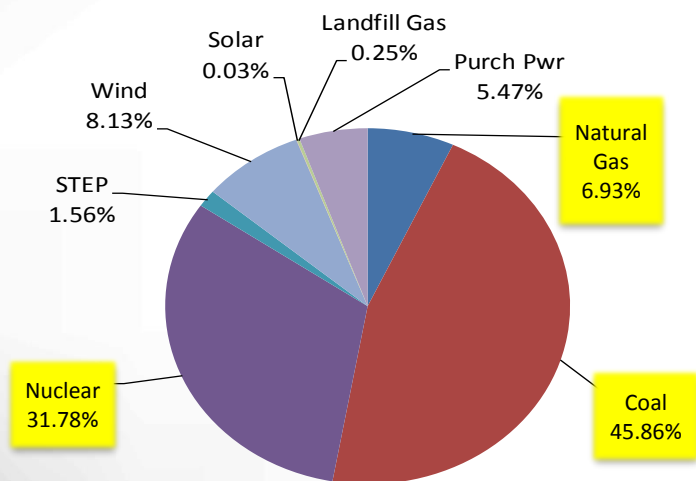


CPS ENERGY 2020 GENERATION DIVERSIFICATION GOALS

20% renewable energy capacity in power generation mix

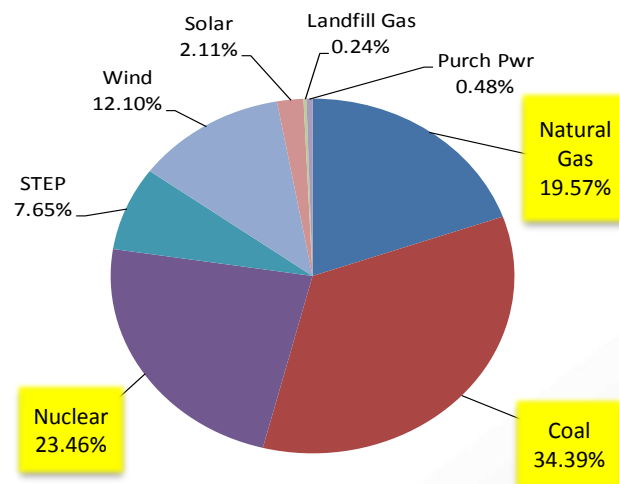
65% of generation low-carbon

771MW energy efficiency STEP goal*



2010 Generation

Traditional 84.57%
Renewables 8.41%



Projected Generation 2020

Traditional 77.42%
Renewables 14.45%

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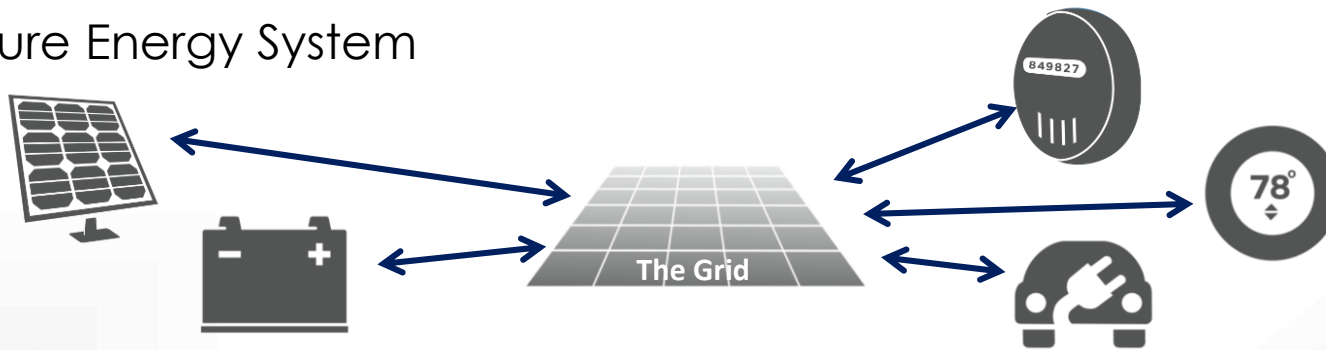
*STEP (Save for Tomorrow Energy Program)

GRID OF THE FUTURE: INTEROPERABILITY VIA OPEN ARCHITECTURE

Traditional Energy System



Future Energy System

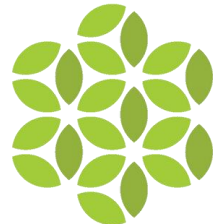


*Interoperability between providers and customers creates most value:
"prosumers"*

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PUBLIC PRIVATE PARTNERSHIPS: NON-TRADITIONAL STRATEGIC ALLIANCES



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HUMAN CAPITAL INVESTMENT

Health
Workforce Benefits
Diversity Training Success
Leadership Progression
Capacity Knowledge Labor Change
Generation Retirement Social Talent

Don't just survive in a changing environment, THRIVE...

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CHALLENGES

- Cyber and Physical Security Concerns
- Natural Phenomena
- Increasing Global Coal Demand
- Disaster recovery
- Utility Adaptability

***“ALL FIXED SET PATTERNS ARE
INCAPABLE OF ADAPTABILITY OR
PLIABILITY. THE TRUTH IS OUTSIDE OF
ALL FIXED PATTTERS.” –BRUCE LEE***

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