Utility Energy Efficiency Investments in the Southeast

July 11, 2013

Speakers

Moderator: Bruce Doueck, JEA, Manager – Customer Conservation and Efficiency

Speaker: Steve Alexander, Nexant, Business Development Manager

Utility Panelists

- Richard Vento
  - JEA (municipal utility of Jacksonville, FL)
  - Director of Corporate Data Integration
- Neil Pickard
  - Georgia Power (investor owned)
  - Energy Efficiency Program Implementation Manager
- Bob Balzar
  - TVA (Federal Power Marketer)
  - Vice President of Energy Efficiency and Demand Response

Overview

- Key Drivers
  - Regulatory
  - Economic
  - Customer Satisfaction

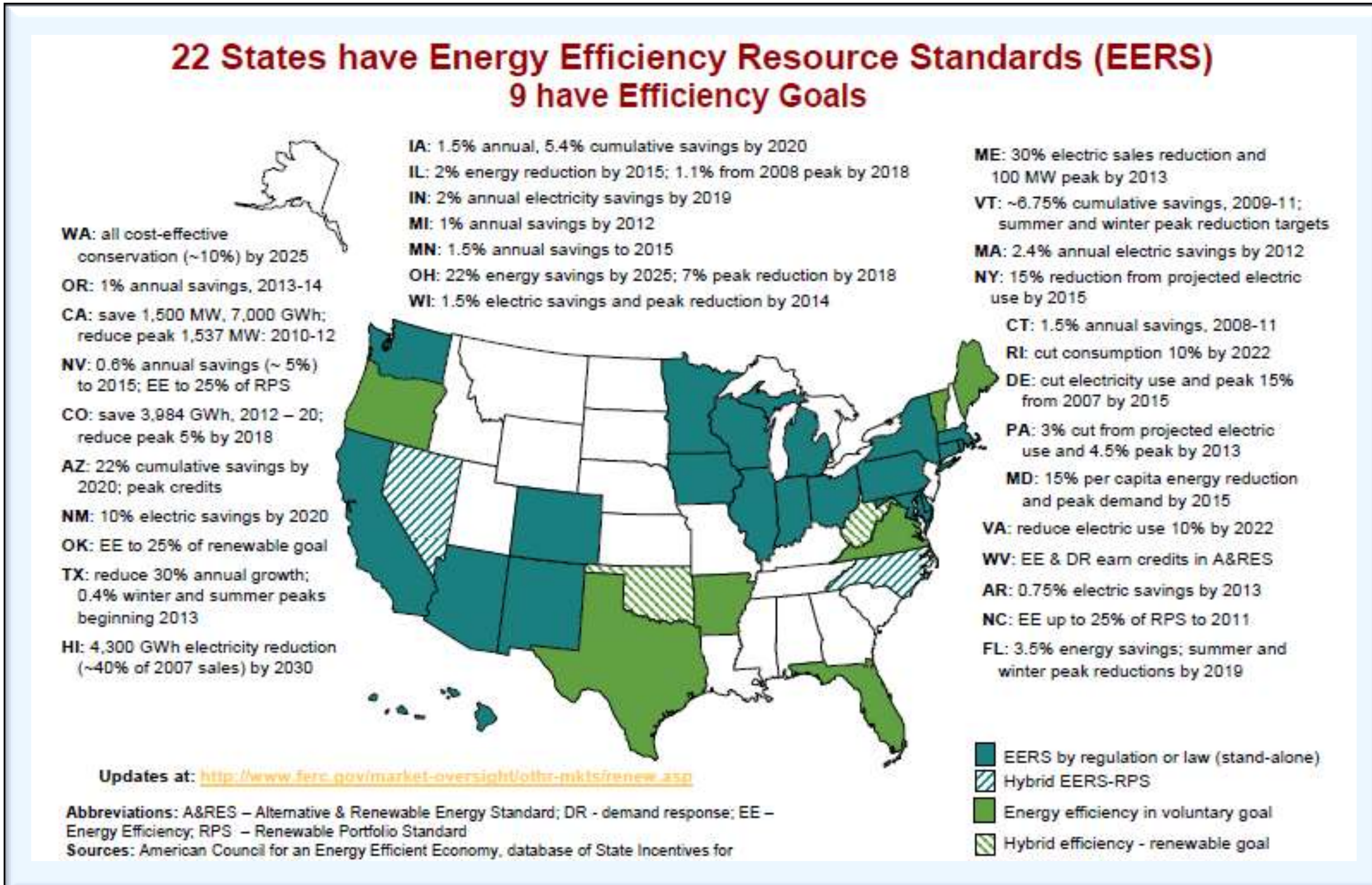
- Unique Challenges
- Program Landscape

Key Drivers – Federal Regulatory

- Major Federal Initiatives
  - Climate change initiatives
  - Sustainable energy acts
  - Tax credits/emissions

- Legislative Movement
  - (9) bills supported by ACEEE
  - Supports economic and job growth

Key Drivers – State Regulatory



*from http://www.ferc.gov/market-oversight/othr-mkts/renew/othr-rnw-eers.pdf

Key Drivers – State Regulatory

Key Policy Drivers for EE Spending /Savings	Applicable to Electric Efficiency Programs	Applicable to Natural Gas Efficiency Programs
Energy Efficiency Resource Standard (EERS)	AZ, CA, CO, HI, IL, IN, MD, MI, MN, MO, NM, NY, OH, PA, TX	CA, CO, MI, MN, NY, IL
Energy efficiency eligibility under state RPS	HI, MI, ***NC***, NV, OH	
Statutory requirement that utilities acquire all cost-effective energy efficiency	CA, CT, MA, RI, VT, WA	CA, CT, MA, RI, VT, WA
Systems benefit charges	CA, CT, DC, MA, ME, MT, NH, NJ, NY, OH, OR, RI, VT, WI	CA, DC, ME, MT, NJ, NY, RI,WI
Integrated resource planning	34 States (primarily in the West and ***Southeast***) and ***TVA***	17 States (primarily in the West and Northeast)
Demand Side Management plan or multi-year energy efficiency budget	28 States	21 States (primarily in the Northeast and Midwest)

**The Future of Utility Customer-Funded Energy Efficiency Programs in the United States: Projected Spending and Savings to 2025*, LBNL, January 2013.

Key Drivers – Economics

- National rate comparison

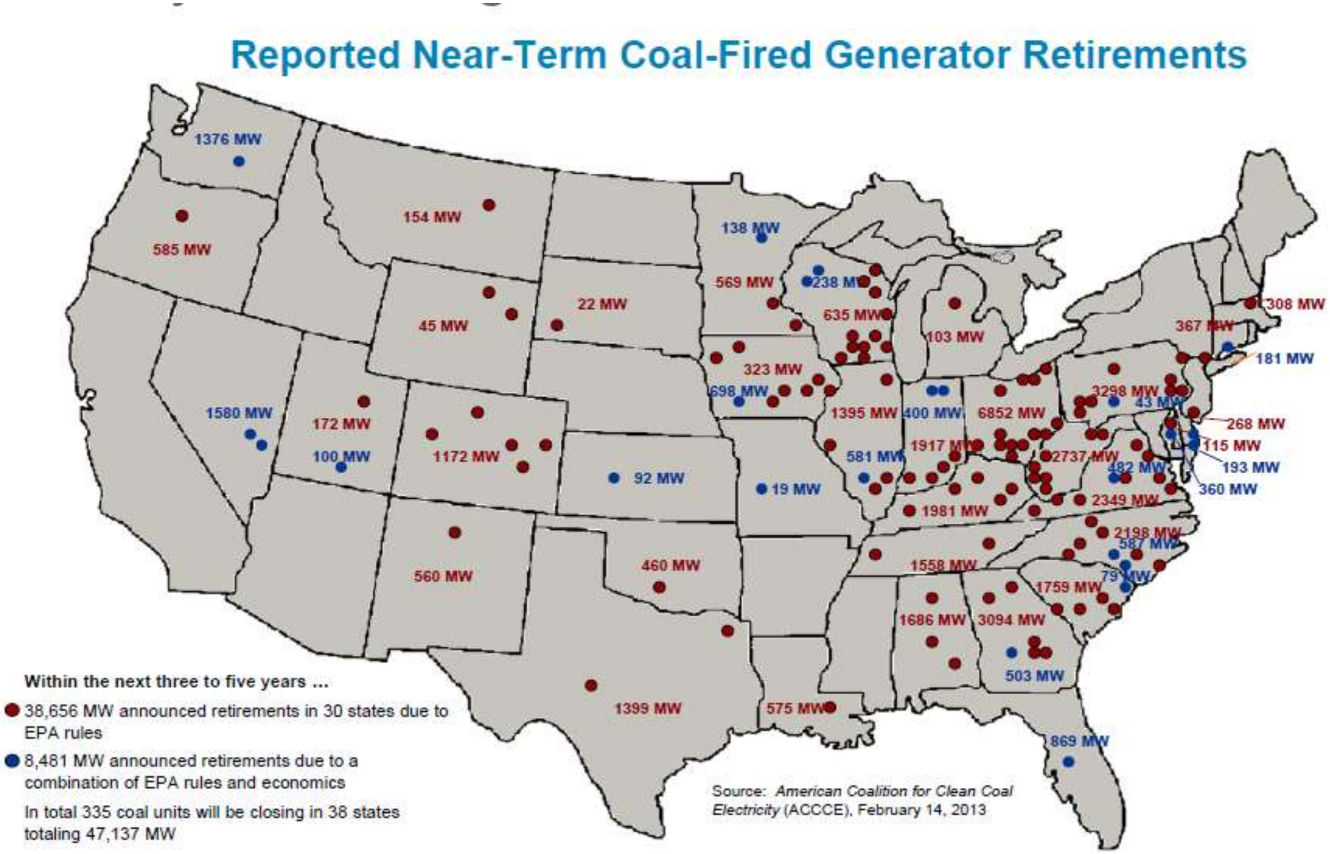
State	Ranking (1 = lowest rates)
Kentucky	3
Alabama	21
South Carolina	22
Virginia	24
Tennessee	25
Mississippi	27
North Carolina	28
Georgia	29
U.S. Average	***32-33***
Florida	35

*EIA EPM Table 5.6.A, April 2013

Region	All Sectors Avg. Retail Rate
West South Central	***$0.082***
East South Central	***$0.083***
West North Central	$0.085
Mountain	$0.087
East North Central	$0.092
South Atlantic	***$0.095***
U.S. Average	***$0.097***
Pacific Contiguous	$0.110
Middle Atlantic	$0.122
New England	$0.140
Pacific Noncontiguous	$0.267

Key Drivers - Economics

- Changes in Capacity – next 3-5 years
  - 37% (17,720 MW) of coal-fired capacity retiring in Southeast*



*Southeast States: KY,VA,TN,NC,SC,GA,AL,MS,FL,LA

Key Drivers – Customer Satisfaction

- Better relationship – marketing and communicating
- Customer empowerment – engage, educate, and guide
- Increased Customer Satisfaction Scores - benchmark
- Consumer Demand for EE = Economic Growth

Unique Challenges – Energy Intensity

DSM Technical Potential
ACEEE Says…

- South has Highest Annual Electrical Intensity
  - Residential
    - Energy Intensity: 16 MWh/home, 33% Above National Average
    - Demand: Cooling 2X National Average
    - Load: 1,403 TWh, 37% of National Total
      - 251 TWh (17%) is Cooling Load
      - 211 TWh (15%) is Lighting Load
  - Commercial
    - Energy Intensity: 19.5 KWh/sq. ft., 13% Above National Average
    - Load: 1,350 TWh, 36% of National Total
      - 137 TWh (10%) is Cooling Load
      - 333 TWh (25%) is Lighting Load
      - 220 TWh (16%) is Office Equipment Load
  - Industrial
    - Load: 228 TWh, mostly Machine Drives,

Unique Challenges – DSM Investment

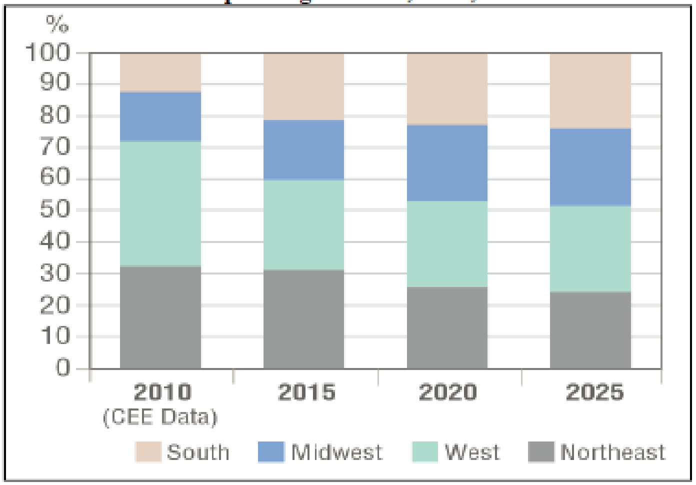
DSM Technical Potential
ACEEE Says…

- Census/ACEEE - http://www.census.gov/geo/www/us_regdiv.pdf

- DSM Annual Spend
  - DSM Program Funding (Electric) - $10-$16B by 2025 (total)
  - Level Playing Field by 2020 (regional DSM spending)
  - South - 12% (2010), 21%-23% (2015-2025) of National Spend
  - Value - $648M (2010), $1.47B - $3.86B (2015-2025)

- DSM Spend – States (Low Target)
  - Florida - $123M (2010), $458M (2025)
  - Texas - $113M (2010), $250M (2025)
  - NC,MD,KY - $220M (2011), $400M (2025)
  - Rest of South - $192M (2010), $400M (2025)

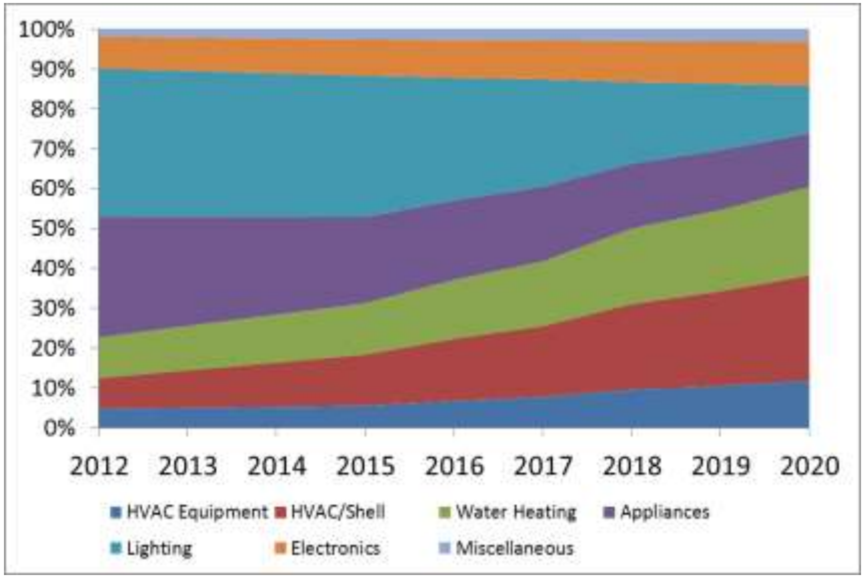
Figure 3. Regional Distribution Chart: 2010 Program Budgets and Spending for 2015, 2020, 2025



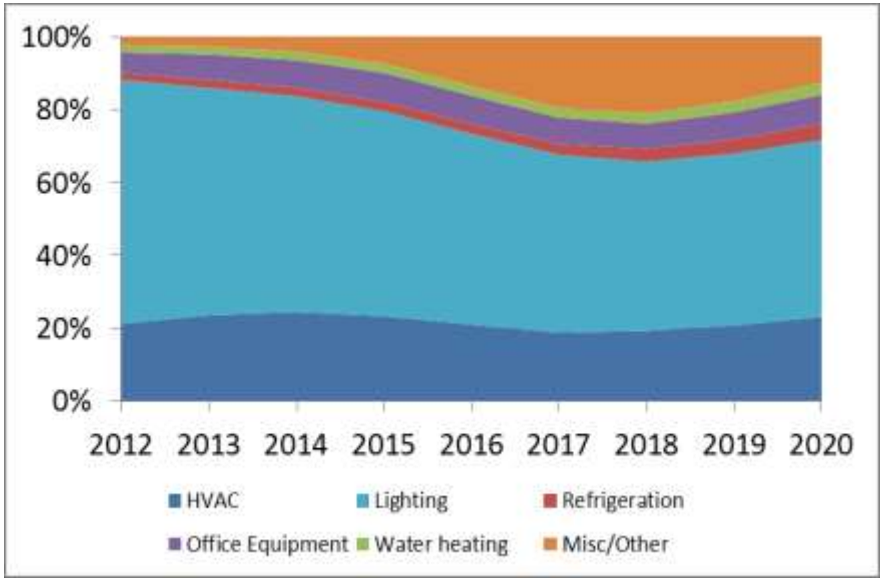
Program Landscape by End Use

- End-Use Contributions to Energy Savings Potential

Residential Sector



Commercial Sector



Program Landscape – Program Categories

Residential

- Standard Programs
  - HVAC equipment
  - Building Envelope (existing homes)
  - New Homes (building/energy codes)
  - Energy Star Appliances
  - Water Heating
  - Low income/weatherization
  - Renewables
- Emerging Programs
  - Web audits
  - Lighting (CFL/LED)
  - Behavioral
  - HVAC tune-up

Commercial & Industrial

- Standard Programs
  - Lighting (equipment/controls)
  - HVAC equipment
  - HVAC controls
  - Building Envelope
  - "Custom"
  - Renewables
- Emerging Programs
  - Retro-commissioning
  - HVAC tune-up
  - Small Business Direct Install
  - Behavioral
  - New Construction
  - Process controls
  - Specialty equipment (cooking, refrigeration, etc)

Q&A

Georgia Power Company
2012 Energy Efficiency Spending

Presented to AESP SEARCH

July 11, 2013

Program Drivers / Scorecards

- Customers are asking for energy efficiency information and help on how to save $$
  – Customer Value Benchmark surveys
- DSM Working Group collaborative
  – Led by the PSC Staff with a number of interveners
- Georgia PSC-certified programs
  – Energy targets and budgets to achieve

Sector Specific EE Programs and Targets

- Residential
  - Existing Home
  - Water Heater Blankets
  - New Home
  - Refrigerator Recycling
  - Lighting and Appliance
- 51.8 GWh for 2012
- Budget of $12.4M for EE programs only

- Commercial
  - Custom
  - Prescriptive
- 151.5 GWh for 2012
- Budget of $8.7M for EE programs only

Common Delivery Strategies

- georgiapower.com
- On-bill messaging
- Bill inserts
- *Electric Living* articles
- Billboards, radio, and television
- Trade Ally and stakeholder networks
- Free onsite audits for Residential and Commercial customers
- Internal employees in our Regions

Unique Approaches

- Testimonials by segment
  - Technical College
  - Municipal reflective roof project
  - Refrigerator Recycling Center media event
  - Refrigerator Recycling customer pick up media event

- Planned
  - Small Business print ads targeted at very specific segments and what matters to them
  - Specific initiatives like parking decks, warehouses, and hospitals via email campaign and lunch-and-learns

Challenges

- Limited flexibility in program design elements
- Limited incentive levels in some programs
- Gaining internal buy-in was slow initially
- Data tracking and analysis needs
- High freeridership depreciation

Key Learnings

- Communicating early and often
- Communicating clearly
- Communicating internally
- Communicating externally with customers, trade allies, and all stakeholders
- Communicating effectively with the PSC Staff

- There seems to be a theme here . . .

QUESTIONS

Type Your Questions in the Chat Box

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Seattle, WA

Jan. 27-30, 2014 — AESP's National Conference
San Diego, CA

May 12-14, 2014 — AESP's Spring Conference
Baltimore, MD

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