Update on Utility Energy Efficiency Policies and Programs in the Southwest

Howard Geller

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Tempe, AZ

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Southwest Energy Efficiency Project

- Non-profit public interest organization, founded 2001
- Advances policies and programs to stimulate greater energy efficiency in six western U.S. states
- Works on energy efficiency in the buildings, transportation, utility and industrial sectors
- Major funding provided by charitable foundations, the U.S. DOE, and business allies

www.swenergy.org
Electric Utility DSM Program Funding Trends in the Southwest

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First Year Energy Savings as a Fraction of Retail Electric Sales

Annual Energy Savings as a % of Retail Sales, by program year

[Graph showing annual energy savings as a percentage of retail sales by program year, with different electric companies represented by distinct line colors and markers.]
Energy Savings Trends – Major Electric Utilities in the Southwest

Savings from Programs Implemented each Year (GWh/yr)

- APS
- TEP
- SRP
- Xcel-CO
- RMP-UT
- NV Energy
- PNM
A Decade of Electric Utility DSM Programs in the Southwest Region

- Over 20 billion kWh/yr of electric savings as of 2016
- Nine baseload power plants avoided (300 MW each)
- $7.0 billion in net economic benefits for households and businesses
- 70 million tons of avoided CO₂ emissions during 2007-16
### Gas Utility DSM Program Spending and Saving Trends

<table>
<thead>
<tr>
<th>Utility</th>
<th>DSM Program Funding (Million $)</th>
<th>DSM Program Savings (thousand Dtherms)</th>
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<tr>
<td>NMGC</td>
<td>4.3</td>
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<td>Questar</td>
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<td>SW Gas (AZ)</td>
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<td>Xcel Energy</td>
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<tr>
<td>Region</td>
<td>46.8</td>
<td>44.4</td>
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Recent Positive Developments

- Major EE legislation adopted this year in Nevada
  - Requires PUCN to adopt energy savings goals
  - Requires accounting for non-energy benefits
  - Dedicates 5% of total DSM budget to low-income programs
  - Cost effectiveness at portfolio rather than program level
- Decoupling approved for Xcel Energy in Colorado
- Gov. Hickenlooper Executive Order – calls for 2% annual electric energy savings by 2020
- Rocky Mountain Power proposing to expand EE programs in Wyoming
Challenges: Future Energy Savings Goals

- EERS policies end in 2020 in some states (Arizona and New Mexico)
- APS proposing a shift towards more emphasis on peak demand management programs and less emphasis on energy savings starting in 2018; also reducing total level of investment in DSM
- Rocky Mountain Power proposing lower energy savings targets in Utah in 2018
- Xcel Energy proposing lower energy savings goals in Colorado starting in 2019
Challenges:  
Other Factors

- Low natural gas prices and declining capacity costs reducing value of energy savings
- Growing renewables penetrations and evolving load shapes are changing the value of energy savings by time of day and year
- Uncertain future for residential lighting programs
  - Potential 2020 federal lighting standards
  - Rapid decline in LED lamp costs
- Increased need for flexible energy efficiency and DR resources as utility systems get more complex
Other Opportunities

- Take advantage of new/emerging energy savings technologies and program strategies
  - LED lights in all sectors; controls; smart thermostats
  - Upstream incentives, Strategic Energy Management

- Utilize smart meters and AMI data to achieve more energy savings and peak demand reduction, and do so in a flexible manner

- Adopt more sophisticated rate designs that enhance EE and DR efforts

- Help state and local governments meet their clean energy and climate action goals
2017 ACEEE State Energy Efficiency Scorecard

Source: American Council for an Energy-Efficiency Economy
## 2017 ACEEE Utility Energy Efficiency Scorecard

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<th>Utility</th>
<th>Ranking</th>
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<td>Xcel Energy - CO</td>
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<tr>
<td>APS</td>
<td>15th (tie)</td>
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<tr>
<td>SRP</td>
<td>21st (tie)</td>
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<tr>
<td>PacifiCorp - UT</td>
<td>23rd</td>
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<tr>
<td>Nevada Power</td>
<td>35th (tie)</td>
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Source: American Council for an Energy-Efficiency Economy
Thank You!

To All SWEEP Allies that have renewed or initiated membership for 2018

We welcome new Business Allies!
SWEEP:
Dedicated to More Efficient Energy Use in the Southwest

Resources available online at:
www.swenergy.org

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