Energy Efficiency Resource Standards (EERS): An Overview

Jeff Brown
EPA - State Climate and Energy Program
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Summary: Energy Efficiency Resource Standards (EERS)

- 23 States have an EERS
- Important driver of ratepayer investment in energy efficiency (EE) programs & energy savings
- Design and implementation details vary by state
- A Federal Renewable Electricity Standard (RES) with an energy efficiency component is in the House-passed, and the Senate-Energy-passed, climate & energy bills
EERS: Background

- Establish a requirement for utilities (and/or other program administrators) to meet annual and cumulative energy savings targets through a portfolio of EE programs.

- As of late 2009, 23 States have adopted some form of an EERS, and many did so in the last few years.
  - The vast majority have a stand-alone EERS; a few (e.g., NC, NV) have a combined EE & RE standard.

- EERS is complementary to other EE policies (e.g., building energy codes, appliance standards, weatherization)
  - But it is drawing from the same pool of EE potential in some cases

- Ratepayer funded EE programs – developed to meet EERS targets in most cases – are projected to reduce national electricity demand by roughly 5% by 2020 (Barbose et al, 2009).
State EERS
as of December 2009

Source: ACEEE (2009)
Figure 1: Projected Ratepayer-Funding for Electric and Natural Gas Energy Efficiency Programs in the U.S.

Source: Barbose et al (2009)

Figure 2: Projected Incremental Annual Electric Energy Efficiency Savings from Ratepayer-Funded Programs in the U.S.
State EERS Designs Vary

- Who establishes the targets
  - Legislature
  - State Utility Regulator

- The size and form of the targets
  - Electricity, Natural Gas
  - % of sales, % of sales growth

- What counts
  - EE incentive, education, and technical assistance programs
  - Other (varies by State): CHP, electric distribution system improvements, Codes & Standards

- Evaluation, Measurement, & Verification (EM&V)
Federal EERS

- A stand-alone Federal EERS would:
  - Place requirements on electric utilities to meet electricity savings targets (e.g., GWh) by investing in energy efficiency.
  - Prescribe the types of EE investments that are eligible to count towards the EERS and the allowable methods for estimating energy savings from EE programs (i.e., EM&V)
  - Establish clear energy savings targets that can be utilized in utility/state/regional resource planning.

- Stand-alone EERS proposals include H.R. 2529 (Markey) and S. 548 (Schumer)

- Committee-passed Federal proposals (e.g., H.R. 2454 (Waxman-Markey); S. 1462 (Bingaman)) do not include a stand-alone EERS;
  - They do include a Renewable Electricity Standard (RES), with EE eligible to meet a portion of the standard
Federal RES Bills (1)

<table>
<thead>
<tr>
<th></th>
<th>HR 2454</th>
<th>S 1462</th>
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<tbody>
<tr>
<td><strong>Obligated entities</strong></td>
<td>Electric utilities with annual sales (excluding resale) of greater than 4,000,000 MWh</td>
<td>Electric utilities with annual sales (excluding resale) of greater than 4,000,000 MWh; excludes HI</td>
</tr>
<tr>
<td><strong>Targets &amp; Timetables</strong></td>
<td>Annual targets from 2012-2039; 6% of base amount in 2012 ramping to 20% in 2020 and beyond; 1/4 of the target can be met with EE; the Governor may petition to increase EE component to 2/5</td>
<td>Annual targets from 2011-2039; 3% of base amount in 2011 ramping to 15% in 2021 and beyond; 26.67% of the target can be met with EE upon petition by the Governor</td>
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<tr>
<td><strong>Base amount adjustment</strong></td>
<td>Electricity generated by hydro that does not qualify for the RE component, CCS, new nuclear</td>
<td>Electricity generated by hyrdo, municipal solid waste, CCS, new nuclear or capacity/efficiency improvements at existing plants</td>
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### Federal RES Bills (2)

<table>
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<tr>
<th>Eligible Resources</th>
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<td>Customer facilities (including recycled energy), distribution system, CHP, fuel cells</td>
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<td>Eligible Mechanisms</td>
<td>Utility played a &quot;significant role&quot; in achieving savings (including through 3rd parties or purchased savings); include savings from programs administered by the utility and funded by State, Federal, or other sources; excludes savings from mandatory building and appliance standards</td>
<td>Utility achieved qualified savings, other entity achieved qualified savings and sold EE savings to a utility; excludes savings from mandatory building and appliance standards</td>
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<td>Trading of energy savings</td>
<td>Allows for trading of energy savings occurring in the purchasing utility’s state and that meets EM&amp;V requirements through bilateral contracts</td>
<td>DOE to establish Federal EE credit trading program</td>
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## Federal RES Bills (3)

<table>
<thead>
<tr>
<th>States with non-utility admin. of EE prgms</th>
<th>HR 2454</th>
<th>S 1462</th>
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<td>Provides for electricity savings achieved through such programs to be distributed equitably among utilities with PUC direction</td>
<td>Not explicitly addressed; potentially covered by section that allows for non-utility entities to receive EE credits, which could be transferred to utilities</td>
<td></td>
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| EM&V | FERC to prescribe standards & protocols for EM&V methods; and standards requiring 3rd party verification; States may propose alternative methods that are equivalent to FERC standards | DOE to prescribe standards & protocols for EM&V methods; and standards requiring 3rd party verification |

| Delegation of Authority for oversight of EE savings | FERC may delegate to States the authority to oversee EM&V and to determine annual savings that may count towards the compliance obligation if the Governor submits an application | n/a |
# Federal RES Bills (4)

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<td><strong>State authority</strong></td>
<td>Preserves state authority to adopt more aggressive standards; explicitly requires FERC to facilitate coordination between Federal and State programs</td>
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<td><strong>Federal Oversight</strong></td>
<td>FERC; required to review at least every 4 years each State’s implementation of delegated authority</td>
<td>DOE</td>
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<td><strong>ACP/ Penalties</strong></td>
<td>ACP = $25/MWh (inflation adjusted); ACP revenues returned to States for EE/RE programs; Penalties = 2 x ACP</td>
<td>ACP = $21/MWh (inflation adjusted); ACP revenues returned to States for EE/RE &amp; electric vehicle programs; Penalties = 2 x ACP; DOE may mitigate penalties</td>
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Additional Resources

Contact Info

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