Federal RPS Bill Comparison

National Conference of State Legislatures
2009 Spring Forum

April 24, 2009

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Renewable Portfolio Standard (RPS): 
• A requirement on retail electric suppliers…
• to supply a minimum percentage or amount of their retail load…
• with eligible sources of renewable energy.

*Typically backed with penalties of some form*
*Often accompanied by a tradable renewable energy credit (REC) program, to facilitate compliance*

*Never designed the same in any two states!*
States with Renewable Portfolio Standards
(indicating solar/DG set-asides)

Source: National Renewable Energy Laboratory, DSIRE, and Berkeley Lab (December 2008)

DG = Distributed Generation

- 28 States + D.C. with Mandatory RPS
- 5 States with Non-Binding Goals
- 18 States + D.C. with solar/DG set-asides
- 12 States + D.C. with solar water heating eligible
  *) Indicates Tier I Resources Only
Renewable Portfolio Standard (RPS) Overview

- **Load Covered**: Roughly 45-50% of U.S. load covered by a state RPS
- **RPS Development**: Most policies emanated from state legislation, but some from regulatory action (e.g., NY, AZ) and a few from state ballot initiatives (CO, WA)
- **RPS Application**: RPS typically applies to regulated IOUs and competitive energy service providers; publicly owned utilities often – but not always – exempt
- **Regulated vs. Restructured**: Initially concentrated in restructured states, but now roughly half in monopoly markets
- **Operating Experience**: Experience with policy is growing, but few states have >7 years experience
Renewable Energy Certificates (RECs)

- A REC represents the attributes of renewable energy generation that can have value separate from commodity electricity.
- RECs are used in both compliance and voluntary markets.
- RECs are also known as green tags, renewable energy credits, and tradable renewable energy certificates (TRCs).
- Unbundled RECs are not allowed in AZ, CA, HI and IA.
National RES/RPS Proposals, Spring 2009

- Senate: Bingaman (February 2009)
- House: Markey (February 2009)
- Senate: Udall (February 2009)
- House: Waxman-Markey (March 31, 2009) – RES is in Title I of the American Climate and Energy Security Act
### Federal RPS Bill Comparison

<table>
<thead>
<tr>
<th>Issue</th>
<th>Bingaman</th>
<th>Markey H.R. 890</th>
<th>Waxman-Markey</th>
<th>Udall S. 433</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPS Target</td>
<td>4% by 2011, 20% by 2021 (through 2039)</td>
<td>6% by 2012; 17.5% by 2020; 25% by 2025 (through 2039)</td>
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<tr>
<td>Baseline</td>
<td>Electric sales minus hydro and MSW</td>
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</tr>
<tr>
<td>Covered Entities</td>
<td>All utilities with retail sales of 4 million MWh or more (except Hawaii)</td>
<td>All electric suppliers selling 1 million MWh or more</td>
<td>All electric suppliers selling 1 million MWh or more</td>
<td>Utilities with retail sales &gt;= 1 million MWh (except Hawaii); federal, state, muni utilities and co-ops voluntarily opt-in</td>
</tr>
<tr>
<td>“Existing” vs. “New” Renewables</td>
<td>RECs for existing renewables (before 01/06) not tradable</td>
<td>No distinction</td>
<td>No distinction</td>
<td>No distinction</td>
</tr>
<tr>
<td>Energy Efficiency Allowed</td>
<td>EE can be used to meet up to 25% of target each year</td>
<td>Not included, Markey proposes separate EEPS bill</td>
<td>State may petition to reduce annual obligation by 20% if utilities comply with EERS</td>
<td>Not included</td>
</tr>
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# Resources and Multipliers

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<tr>
<td><strong>Resource Eligibility</strong></td>
<td>“Existing” in service before 1/1/2006: Solar, wind, geothermal, ocean, biomass, LFG  “New” in service after 1/1/2006: incremental output if in service before 1/1/2006, plus incremental hydro</td>
<td>Wind, solar, geothermal, biomass or LFG, qualified hydro, marine and hydrokinetic</td>
<td>Wind, solar, geothermal, biomass or LFG, qualified hydro, marine and hydrokinetic, fuel cells (bio definition differs from Markey)</td>
<td>Solar, wind, ocean, tidal, geothermal, biomass, LFG, incremental hydro, hydrokinetic</td>
</tr>
<tr>
<td><strong>Credit Multipliers</strong></td>
<td>2 RECs/kWh for projects on tribal lands; 3 RECs/kWh for distributed generation</td>
<td>3 RECs/kWh for distributed generation</td>
<td>3 RECs/MWh for distributed generation, review by Jan 2014</td>
<td>2 RECs/kWh for projects on tribal lands (bio on-site); 3 RECs/kWh from distributed generation</td>
</tr>
<tr>
<td><strong>Distributed Generation Definition</strong></td>
<td>At “customer site,” 1 MW limit</td>
<td>Non-combustion, customers “at or near” facility, up to 2 MW</td>
<td>Non-combustion, customers “at or near” facility, up to 2 MW</td>
<td>On-site up to 1 MW, offsets customer electric use</td>
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# REC Issuance and Banking

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<td>Definition of a federal REC</td>
<td>REC = 1 kWh; not defined</td>
<td>REC represents 1 kWh of renewable electricity</td>
<td>REC represents 1 MWh of renewable electricity; unique serial number</td>
<td>REC = 1 kWh, not defined</td>
</tr>
<tr>
<td>Issuance of Federal RECs</td>
<td>Issued to generators. Issued to utilities if complied with state RES, paid state ACP, or in case of central procurement. For existing contracts, retail electric provider gets credit. Language unclear.</td>
<td>Issued to generators. Exceptions for central RPS procurement and ACP payments. For existing contracts, retail electric provider gets credit.</td>
<td>Issued to generators. Exceptions for central RPS procurement and ACP payments. For existing contracts, retail electric provider gets credit.</td>
<td>Issued to generators. For existing contracts, retail electric provider gets credit. ACP or other payments for state RPS are credited based on resulting generation.</td>
</tr>
<tr>
<td>Banking Allowed</td>
<td>3 Years</td>
<td>3 years</td>
<td>3 years</td>
<td>3 years. Borrowing for first 3 years.</td>
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# ACP and Penalties

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<td>Alternative Compliance Payment (ACP)</td>
<td>$30/MWh (inflation adjusted)</td>
<td>Lesser of: 5c/kwh (inflation adjusted) or 200% of prior year average market value of federal RECs</td>
<td>Lesser of: 200% of the avg. market value of Federal RECs for previous compliance period; or $50/MWh, inflation adjusted</td>
<td>Lesser of: 200% of the avg. market value of Federal RECs and EECs for the applicable compliance period; or $30/MWh, inflation adjusted</td>
</tr>
<tr>
<td>Enforcement Penalties</td>
<td>200% of the ACP. Reduced by state penalties if state RPS is higher. Up to 5 year waiver for natural disasters.</td>
<td>200% of the ACP</td>
<td>200% of the ACP</td>
<td>None Mentioned</td>
</tr>
<tr>
<td>Use of ACP Revenues</td>
<td>Allocated to state energy offices with preference to states with small share of economic RE capacity</td>
<td>Returned proportionately to all utilities that met federal requirement (no targeted uses)</td>
<td>Returned proportionately to all utilities that met federal requirement (no targeted uses)</td>
<td>Allocated to states for grants for RE (75%) and low income EE based on retail sales subject to RES</td>
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Simultaneous State and Federal RPS

Many issues still to be determined:
- Excess Federal RECs?
- Dual RECs system?
- Tracking?
- ACP’s at state and federal level?
Thank you for your attention!

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