SUSTAINABLE AND CLEAN ENERGY / Clean Electricity

1.2 Reduce Greenhouse Gas Emission from Electrical Energy Consumption to 16.9 mmt/year by 2020

Department of Commerce
Tony Usibelli, Director – State Energy Office

Utilities and Transportation Commission
Dave Danner, Chairman
3.1.2.a Increase electric load served by renewable energy to 9% by 2016 and 15% by 2020
Background: Moving Beyond Our Hydroelectric Legacy

- Washington is the largest producer of hydroelectricity in the U.S.
- Our hydroelectricity has major benefits
  - Lowest electricity prices in the U.S.
  - Cleaner air (100% attainment areas)
  - Use of an in-state resource – keeping $ and jobs in Washington
- How do we meet our future electricity needs?
  - Very little new hydroelectricity potential
  - Need to maintain clean air benefits, reduce emissions, and avoid increasing emissions
  - Take full advantage of our indigenous resources

New Renewable Electricity Sources
3.1.2.a Increase electric load served by renewable energy

Background: *Energy Independence Act (I-937) is the Policy Base*

- Applies to utilities with more than 25,000 customers, about 85% of state’s electric sales
- Electric utilities must pursue, identify and acquire all available cost-effective conservation (3.1.2b)
- Electric utilities must use renewable energy for a portion of their supply
  - 2012-2015: 3%
  - 2016-2019: 9%
  - 2020 and beyond: 15%
- Consumer protections to limit impact on cost of power
  - Conservation must be cost-effective
  - Incremental cost of renewables limited at 4% of revenue requirement
  - Lower renewable cost limit for non-growing utilities
3.1.2.a Increase electric load served by renewable energy

Current State: All Utilities are Meeting Renewable Requirements

- Utilities have met their requirements in 2012, 2013, 2014
- Wind is most common resource but hydroelectric upgrades are also important
- Utilities percentages range from 3% to 11.4%
- Investor-owned utilities have resources, contracts, and renewable energy credits (RECs) sufficient to meet 2020 target of 15%
- Some consumer-owned utilities are likely to hit price cap before hitting percentage targets 12% vs 15%
- Solar electricity is a very small contributor to the mix
3.1.2.a Increase electric load served by renewable energy

Problem / Opportunity: Need to “keep the faith” with I-937 goals

Challenges

- Many utilities are pushing policies to roll back renewables requirements.
- Low load growth
- Need to establish goals after 2020
- Difficult to determine investment levels and costs for consumer-owned utility compliance
- Need to harmonize state targets with EPA’s proposed Clean Power Plan (111d)
- Absent renewable targets, utilities acquire the least-cost resource
Strategies: Focus on Policy to Maintain and Strengthen Achievements

Strategies

• Reduce the capital cost of renewable energy technologies
  – Clean Energy R,D&D Funding

• Develop legislative and administrative solutions that maintain the goals
  – Improve cost accounting information
  – Improvements to incremental hydro
  – Better promotion of combined heat and power
  – Maintain integrity of REC tracking and compliance (prevent double-counting)

• Challenge is to reach agreement among diverse parties
  – All utilities are not equal
  – Strong environmental and business perspectives
  – Determine if (electric or transportation sector) substituting carbon offsets for renewable electricity reduces overall carbon emissions.
### Action Plan

**3.1.2.a Increase electric load served by renewable energy**

<table>
<thead>
<tr>
<th>Task</th>
<th>Task Lead</th>
<th>Partners</th>
<th>Expected Outcome</th>
<th>Status</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Update I-937 Rules</strong></td>
<td>Commerce – COUs</td>
<td>Auditor, UTC</td>
<td>Streamline reporting requirements, and standardize methodologies</td>
<td>Complete / On Track</td>
<td>UTC: Mar. ‘15 COM: June ’15</td>
</tr>
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<td></td>
<td>UTC- IOUs</td>
<td></td>
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<tr>
<td><strong>Extend and Revise WA Solar Legislation</strong></td>
<td>Commerce</td>
<td>DOR, WSU Energy, UTC</td>
<td>Increase solar capacity from 36 to 150 megawatts</td>
<td>Uncertain</td>
<td>June ‘15</td>
</tr>
<tr>
<td><strong>New Funding for Smart Grid Grants</strong></td>
<td>Commerce</td>
<td>Governor’s Office</td>
<td>Increase deployment of smart grid solutions to integrate renewables</td>
<td>Awaiting Final Capital Budget</td>
<td>June ‘15</td>
</tr>
<tr>
<td><strong>New Funding for Energy Loans</strong></td>
<td>Commerce</td>
<td>Governor’s Office</td>
<td>Development of additional renewable projects</td>
<td>Awaiting Final Capital Budget</td>
<td>June ‘15</td>
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</table>
3.1.2.b Increase electric load growth replaced by conservation to 155 average megawatts/year by 2020
Electricity Efficiency is the resource of choice
• Costs less to save energy than generate it
  – Benefits electric utilities and customers
• Major environmental benefits
• New technologies bring new savings – LED lights

WA and the NW lead the nation in efficiency
• 1980 NW Power Act – Conservation as preferred resource
• WA utilities invested $290 million in efficiency (2013)
• WA Energy Code among the best in U.S.
• WA in top 10 for efficiency laws and policies act. (ACEEE)
Current State: *We are on Track to Achieve our 2020 Goal*

- I-937 utilities will achieve conservation equal to 7.4 percent of load by the end of 2015
- Individual I-937 utilities range from 5.1 percent to 8.3 percent savings
- All results are audited as required by statute (RCW 19.285.060)
- The other smaller utilities (not I-937) have robust conservation programs largely funded and evaluated by BPA
- State is making investments in public sector building efficiency
Problem / Opportunity:

Challenges

• Many utilities have small net load growth making them less interested in conservation.

• Utilities need to continue to develop robust energy conservation potential studies.

• Energy codes face cost effectiveness challenges and long-standing political opposition.

• State budgets for energy efficiency are funded biennially - no dedicated fund source like some other high-achiever states.

• Need to harmonize state conservation achievement with EPA’s proposed Clean Power Plan (111d) targets.
# Action Plan

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<tr>
<td><strong>Update the State Energy Code</strong></td>
<td>Commerce</td>
<td>SBCC, NEEA, NWEC</td>
<td>New, higher efficiency code (8 to 14% improvement)</td>
<td>On Track</td>
<td>Dec. ‘15</td>
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<tr>
<td><strong>New Funding for Energy Loans</strong></td>
<td>Commerce</td>
<td>Governor’s Office</td>
<td>Development of additional energy efficiency projects</td>
<td>Awaiting Final Capital Budget</td>
<td>June ‘15</td>
</tr>
<tr>
<td><strong>New Funding for Public Facility Efficiency</strong></td>
<td>Commerce</td>
<td>Governor’s Office</td>
<td>Increase energy efficiency in public buildings</td>
<td>Awaiting Final Capital Budget</td>
<td>June ‘15</td>
</tr>
<tr>
<td><strong>Support Strong Conservation in the 7th Regional Power Plan</strong></td>
<td>Commerce</td>
<td>Power Council, Utilities, UTC</td>
<td>Establish new long-term conservation goals for WA utilities.</td>
<td>On Track</td>
<td>Jan. ‘16</td>
</tr>
<tr>
<td><strong>Energy Conservation</strong></td>
<td>UTC</td>
<td>IOUs, NWEC, Public Counsel, ICNU, Commerce</td>
<td>Formalize robust energy efficiency resource planning process through rulemaking</td>
<td>Complete</td>
<td>Mar. ‘15</td>
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</table>
Results: 7-8 million metric tons per year after 2020 from renewables and conservation

Projected Annual Carbon Emission Reductions from Conservation and Renewable Energy Generation Required by I-937

- Conservation
- Renewable Energy