



Results Washington

May 11, 2015

## **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**



**Department of Commerce**  
Innovation is in our nature.

**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



**Department of Commerce**  
Innovation is in our nature.



## Background: *Moving Beyond Our Hydroelectric Legacy*

---



**Bonneville Dam**



**Stateline Wind**

- 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**

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

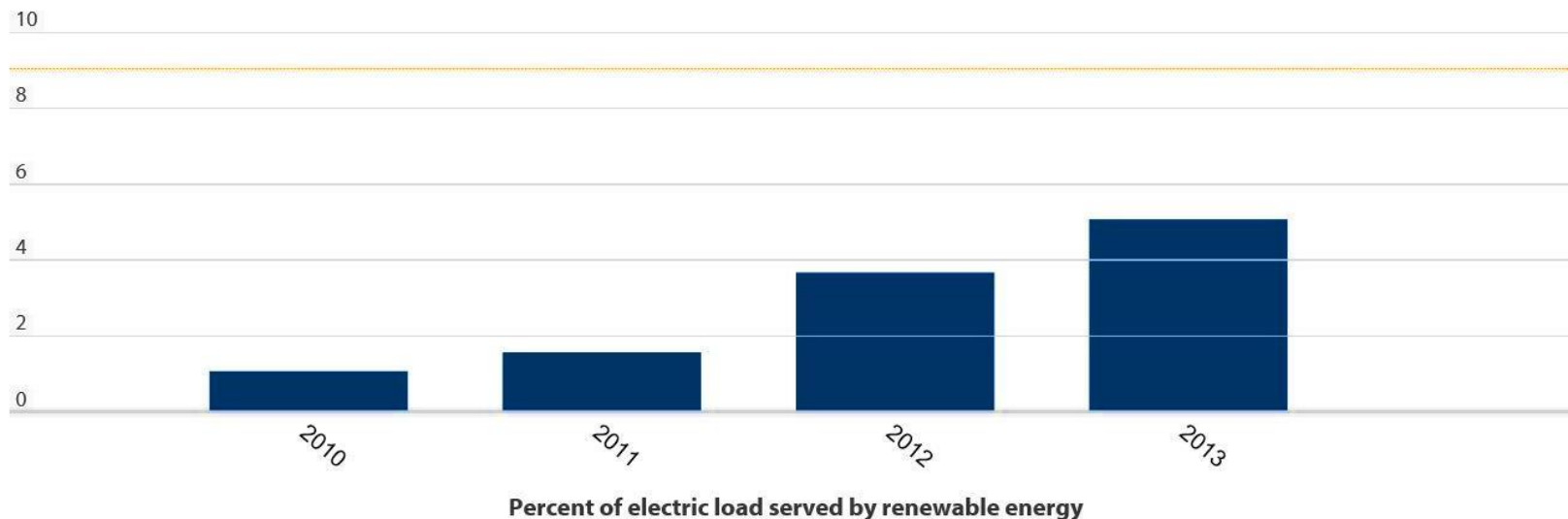
---

- 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

## 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

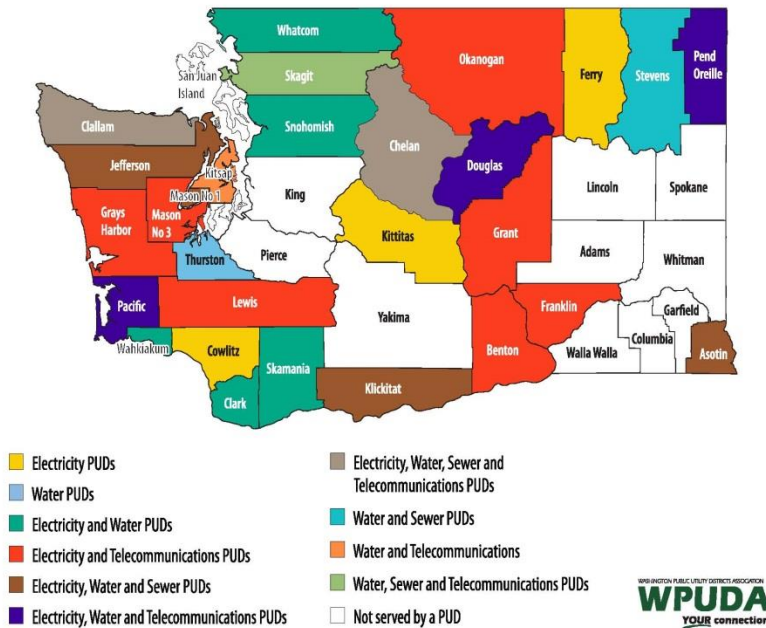


## Problem / Opportunity: *Need to “keep the faith” with I-937 goals*

### 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

Counties Served by Public Utility Districts



## 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

---

<b>Task</b>	<b>Task Lead</b>	<b>Partners</b>	<b>Expected Outcome</b>	<b>Status</b>	<b>Due Date</b>
<b>Update I-937 Rules</b>	Commerce – COUs UTC- IOUs	Auditor, UTC	Streamline reporting requirements, and standardize methodologies	Complete / On Track	UTC: Mar. '15 COM: June '15
<b>Extend and Revise WA Solar Legislation</b>	Commerce	DOR, WSU Energy, UTC	Increase solar capacity from 36 to 150 megawatts	Uncertain	June '15
<b>New Funding for Smart Grid Grants</b>	Commerce	Governor's Office	Increase deployment of smart grid solutions to integrate renewables	Awaiting Final Capital Budget	June '15
<b>New Funding for Energy Loans</b>	Commerce	Governor's Office	Development of additional renewable projects	Awaiting Final Capital Budget	June '15



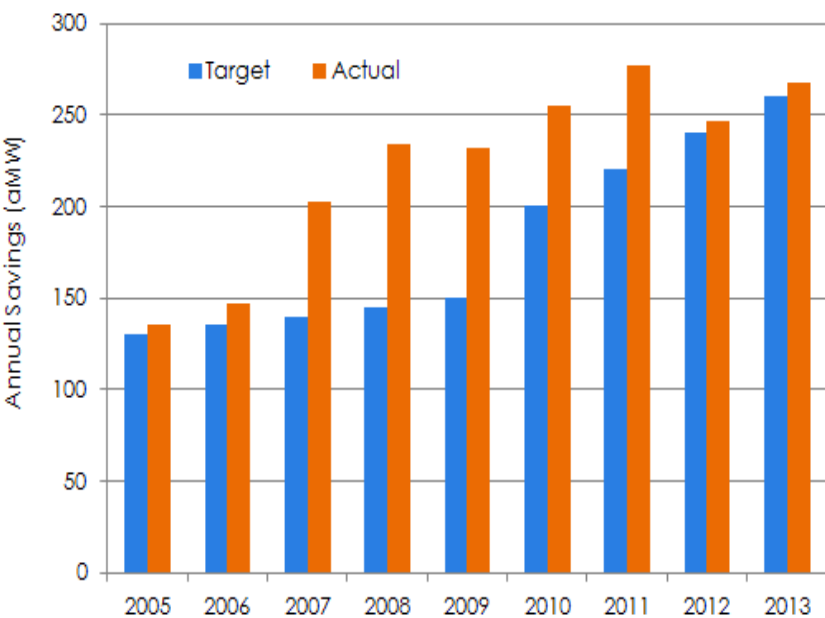
## **3.1.2.b Increase electric load growth replaced by conservation to 155 average megawatts/year by 2020**



**Department of Commerce**  
Innovation is in our nature.



## Background: *Electricity Efficiency A Thirty-Five Year Success Story*



NW Regional Electricity Savings

### **Electricity Efficiency is the resource of choice**

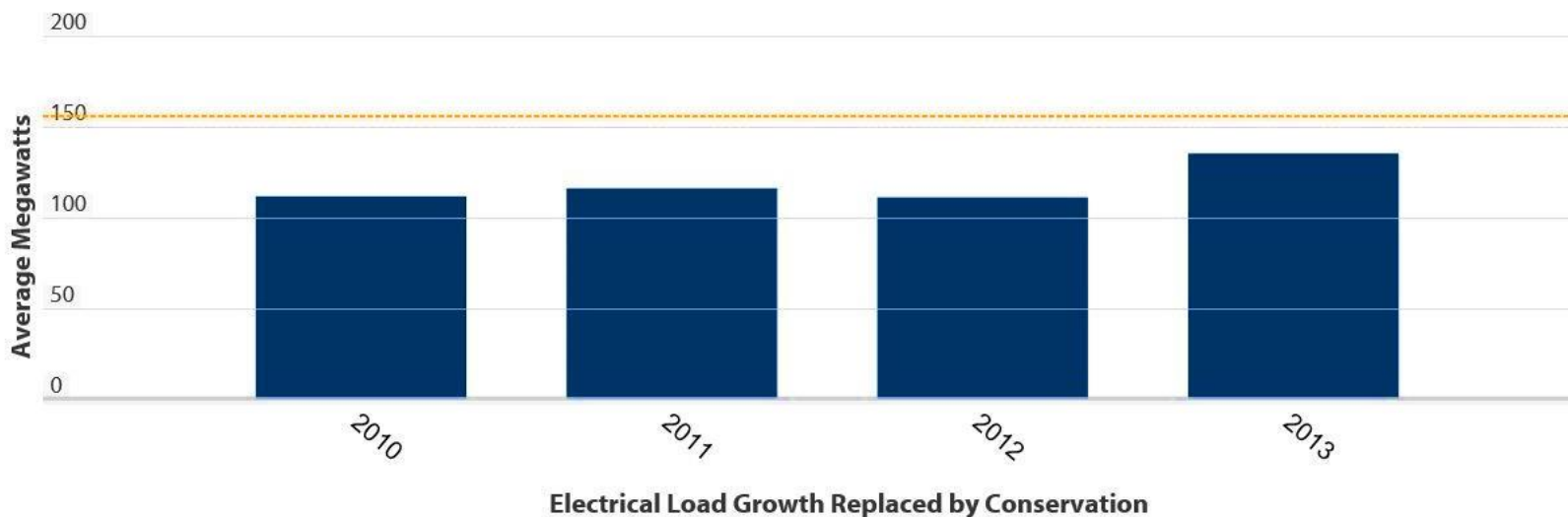
- Costs less to save energy than generate it
  - Benefits electric utilities and customers
- Major environmental benefits
- New technologies bring new savings – LED lights

### **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

<b>Task</b>	<b>Task Lead</b>	<b>Partners</b>	<b>Expected Outcome</b>	<b>Status</b>	<b>Due Date</b>
<b>Update the State Energy Code</b>	Commerce	SBCC, NEEA, NWEC	New, higher efficiency code (8 to 14% improvement)	On Track	Dec. '15
<b>New Funding for Energy Loans</b>	Commerce	Governor's Office	Development of additional energy efficiency projects	Awaiting Final Capital Budget	June '15
<b>New Funding for Public Facility Efficiency</b>	Commerce	Governor's Office	Increase energy efficiency in public buildings	Awaiting Final Capital Budget	June '15
<b>Support Strong Conservation in the 7<sup>th</sup> Regional Power Plan</b>	Commerce	Power Council, Utilities, UTC	Establish new long-term conservation goals for WA utilities.	On Track	Jan.'16
<b>Energy Conservation</b>	UTC	IOUs, NWEC, Public Counsel, ICNU, Commerce	Formalize robust energy efficiency resource planning process through rulemaking	Complete	Mar. '15

# 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

