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Oregon

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Oregon

July 2, 2008

## **MEMORANDUM**

**TO:** Council Members

**FROM:** Terry Morlan

**SUBJECT:** Public Utility Panel on the Western Climate Initiative

Jessica Matlock from the Snohomish Public Utility District has organized a panel of public utility representatives to present their perspectives on the Western Climate Initiative to the Council. The panel includes:

Jessica Matlock, Snohomish PUD  
Peggy Duxbury, Seattle City Light  
Andrew Munroe, Grant PUD

This panel will succeed the briefing from Janice Adair on the status of WCI goals and policies. Hearing the perspectives of these utilities will help the Council formulate its own recommendations as the Sixth Power Plan is developed.

There are no presentations available for this panel at packet time. If materials come in before the Council meeting, we will send them to you.



## **Climate Change and WCI A Public Power Perspective**

**Briefing for Northwest Power and Conservation  
Council  
*July 15, 2008***

**Peggy Duxbury, Seattle City Light  
Jessica Matlock, Snohomish County PUD  
Andrew Munro, Grant County PUD**

### **Introduction**

- **Overview of Activities**
- **Shared Views Among (most) WA Utilities**
- **Update on Economic Modeling Exercise**
- **Bringing Renewables On Line: SnoPud**
- **Concluding Thoughts**

## Perspective – Seattle City Light

- **Feel climate change is real, strong action needed sooner, not later**
  - Supported Lieberman / Warner
  - Supported S. 6001
- **Energy Efficiency – the next frontier**
- **Impact of warming on operations**
- **Electrification on Transportation / AMI**

## Federal / Regional / State Activities

- **Western Climate Initiative**
  - State Legislatures Act in 2009
  - First Jurisdictional Deliverer ??
  - State-by-state carbon budgets
- **Congress**
  - Post-Lieberman / Warner Activities
  - **Allocation to LSEs**
- **EPA**
  - Mass v EPA
  - CA Auto emission standards

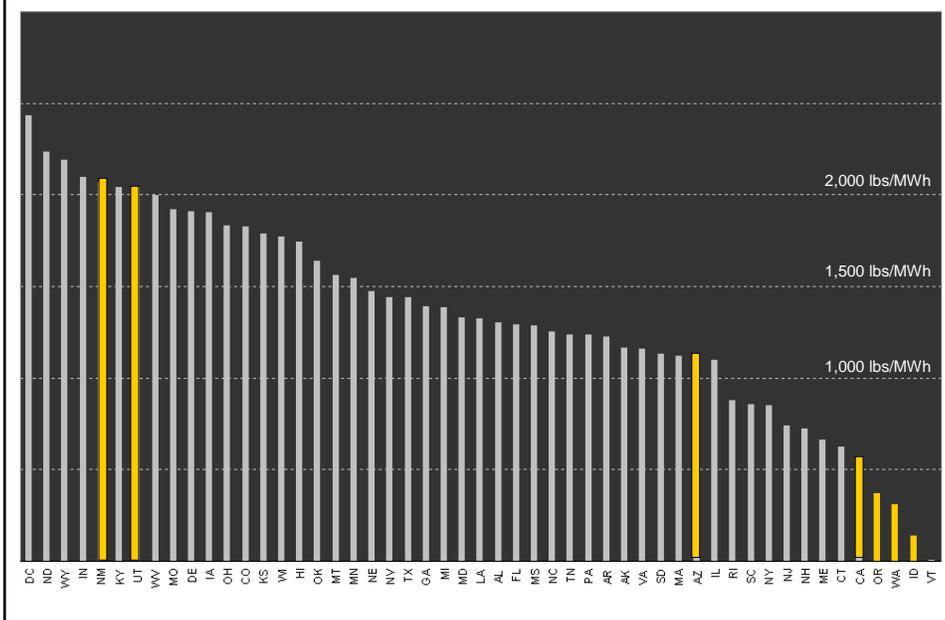
## Sixth Power Plan and Climate Change

- **Support Better Information / Data**
  - 2007 Carbon Footprint Report
  - E-tag / tracking CO2 through supply chain
- **Impact of Global Warming on Hydro/Salmon**
- **Hardwiring Energy Efficiency into Cap and Trade**
  - LSE provisions in L/W bill -- credit for avoided sales

## Shared Views among (most) WA Utilities

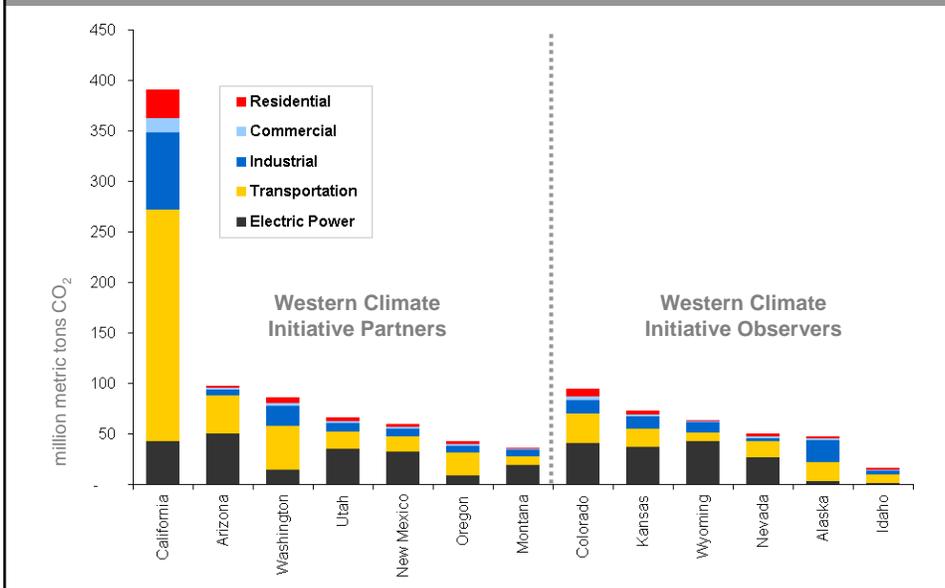
- Allocation Issues Challenging**
  - **Should not** be historic-based
  - **Should** recognize renewables & conservation
  - **Should** recognize \$\$ spent improving hydro's environmental impacts
- **Support Lieberman-Warner LSE provision**
- **Possible to Separate Point of Regulation from Allocation Distribution**

**LOWEST CARBON EMISSION RATES IN US: (lbs of CO<sub>2</sub> per megawatt hour of electricity produced)**



**CO<sub>2</sub> Footprint by Sector - 2005**

Source: U.S. EPA, Energy CO<sub>2</sub> Emissions by State, [http://www.epa.gov/climatechange/emissions/state\\_energyco2inv.html](http://www.epa.gov/climatechange/emissions/state_energyco2inv.html)



## CO2 Allocation Comparison: Historic Emissions vs. Output\* vs. Load Based Approaches

Based on EIA 2004 & 2005 data



\*CO<sub>2</sub> allowance allocation based on total electricity output, including fossil, renewable, and incremental nuclear output (relative to 1990).

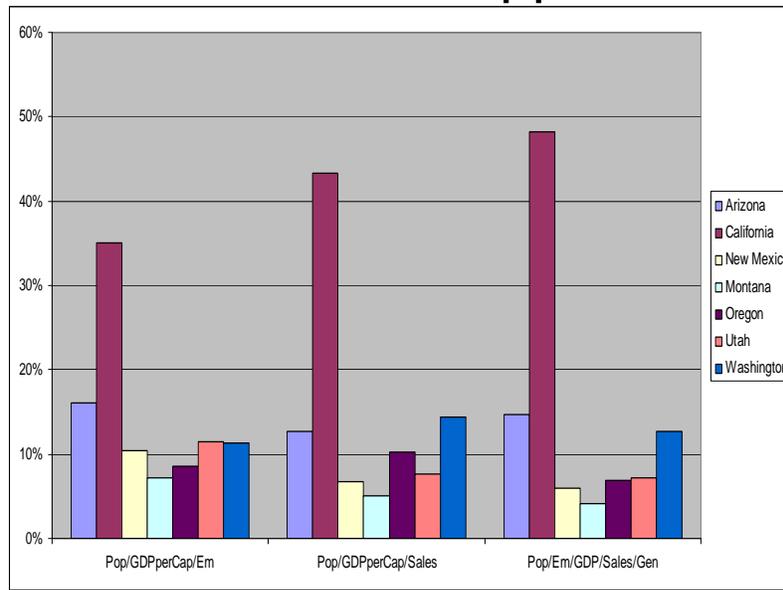
## Perspective – Grant PUD

- **Rural, agricultural population**
- **Load growth**
  - 200 MWs in next five years
- **Optimizing hydro**
  - \$35M fish slide
  - \$150M advanced turbine upgrades
  - Additional 138 MWs (1,755 to 1,893) at Wanapum
  - New FERC license
- **New resources**

## Economic Modeling Activities

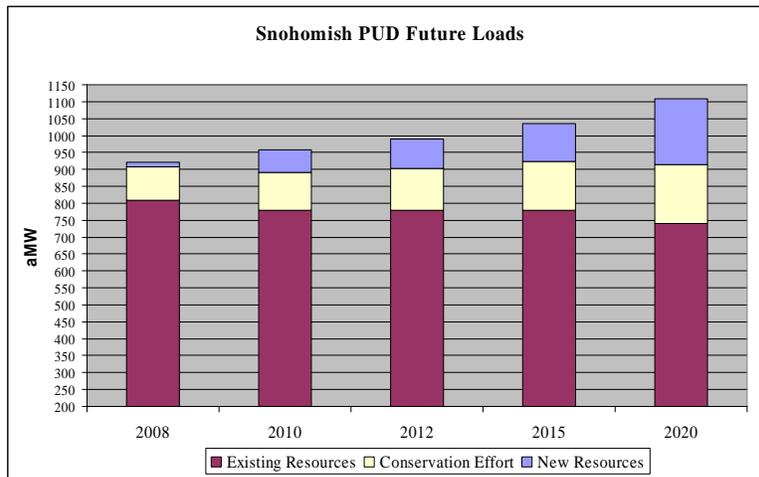
- **NW & N. CA Public Power Utilities**
- **Evaluate economic effects on electricity sector**
- **Allocation & auction scenarios**
- **Federal & WCI**
- **Build consensus within public power**
- **Caveat – modeling based on assumptions that may or may not occur**
- **Early August – Utilities first view at model**

## Possible WCI Approach



## Perspective – Snohomish PUD

- **Meeting future load growth**
- **Climate change**
- **Bringing new renewables on-line**
  - Expensive, permitting, land issues, funding, CREBS, PTC
  - Cost of tidal
  - Cost of geothermal



- In 2009, Morgan Stanley contract for 25 aMW will expire.
- In 2017, Everett Co-gen partnership agreement for 37.0 aMW will be reevaluated.
- Pursuing wind, small and low-impact hydro, biomass, biogas, tidal and geothermal energy to meet expected load.

## **Conclusion: Lot's of Uncertainties**

- **NW Power Council's Role**
- **BPA Regional Dialogue & BioP**
- **Natural Gas Prices & Infrastructure**
- **Integrating Wind**
- **Success of Emerging Tech**
  - Tidal/ Geo / Carbon Capture / Solar / Etc