



*Annual In-Person*  
*WREGIS Committee Meeting*

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*Western States Renewable  
Portfolio Standards (RPS)  
Overview*

Presenter: *Andrea Coon, PhD*

**Thursday, November 12, 2009**  
**Las Vegas, NV**



# Washington

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- ➔ RPS implemented by voter initiative in 2006
- ➔ Requires 15% renewable resources by 2020
  - ◆ Smaller, near-term targets apply
    - 3% by 2012
    - 9% by 2016
- ➔ Applies to Municipal Utilities, Investor-owned Utilities (IOU), and Rural Electric Cooperatives
- ➔ Encourages energy conservation
- ➔ \$50/MWh penalty for non-compliance may apply



## *Washington* (cont.)

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### → Eligible Technologies include:

- ◆ Solar Thermal
- ◆ Photovoltaic
- ◆ Landfill Gas and other Biogas
- ◆ Wind
- ◆ Hydro, restrictions apply
- ◆ Biomass, excluding several wood products
- ◆ Tidal or Wave Energy, or Ocean Thermal



# Montana

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- RPS signed into law in 2005
- ◆ Requires 15% by 2015
  - Smaller, near-term targets apply
    - 5% for 2008
    - 10% for 2010
- ◆ Applies to IOUs and Retail Suppliers
- ◆ \$10/MWh penalty for non-compliance may apply



## *Montana (cont.)*

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- Eligible Technologies include:
- ◆ Solar Thermal
  - ◆ Photovoltaic
  - ◆ Landfill Gas and other Biogas
  - ◆ Wind
  - ◆ Biomass
  - ◆ Hydro, existing and 10 MW or less
  - ◆ Geothermal
  - ◆ Fuel Cells



# Utah

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- RPS signed into law in 2008
- Suggests 20% by 2025
- Applies to Municipal Utilities, IOUs, and Rural Electric Cooperatives
- Encourages energy efficiency and demand-side management
- Not a binding standard, more of a goal



## *Utah (cont.)*

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- Eligible Technologies include:
  - ◆ Solar Water and Space Heating
  - ◆ Solar Thermal
  - ◆ Photovoltaic
  - ◆ Landfill and other Biogas
  - ◆ Biomass
  - ◆ Geothermal
  - ◆ Hydro
  - ◆ Wind
  - ◆ Ocean or Wave Energy, or Ocean Thermal



# Arizona

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- RES set up by Arizona Corporation Commission rulemaking in 2006
- Requires 15% by 2025
  - ◆ Smaller yearly targets apply
- Applies to IOUs, Rural Electric Cooperatives, and Retail Suppliers
- Distributed Generation must account for 30% of the standard starting in 2012



## *Arizona (cont.)*

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- Eligible Technologies include:
- ◆ Solar Water, Space, and Pool Heating and Cooling
  - ◆ Solar Thermal
  - ◆ Photovoltaic
  - ◆ Landfill and other Biogas
  - ◆ Wind
  - ◆ Biomass
  - ◆ Hydro
  - ◆ Geothermal
  - ◆ Fuel Cells



# Colorado

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- RPS implemented by voter initiative in 2004
- Requires 10% or 20% by 2020
  - ◆ 10% for Cooperatives and Municipal Utilities
  - ◆ 20% for IOUs
  - ◆ Smaller, near term targets apply for IOUs
    - 5% in 2008
    - 10% in 2011
    - 15% in 2015
- Applies to IOUs, Rural Electric Cooperatives, and larger Municipal Utilities



## *Colorado (cont.)*

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- Eligible Technologies include:
- ◆ Solar Thermal
  - ◆ Photovoltaic
  - ◆ Landfill and other biogas
  - ◆ Wind
  - ◆ Biomass
  - ◆ Hydro
  - ◆ Geothermal
  - ◆ Fuel cells



# Questions

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