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## Western States Renewables Developments Renewables Portfolio Standards

Buying and Selling Electric Power in the West

Seattle, Washington  
January 18-19, 2007

Howard V. Golub  
Nixon Peabody, LLP  
Two Embarcadero Center  
San Francisco, California  
(415) 984-8200  
hgolub@nixonpeabody.com

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## Policy Considerations

- RPS are intended to stimulate the development of renewable energy sources by requiring Load-Serving Entities to create “market pull.”
- Reflects strong public interest in transitioning to renewable energy sources.
- Counteracts “race to the bottom” for cheapest generating sources and levels playing field for LSE’s seeking to deploy green resources

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hgolub@nixonpeabody.com

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# Enacting RPS

## ➤ Contentions

- Economic opportunity
- Job creation
- Increase energy supply reliability
- Reduce dependence on fossil fuel
- Reduce electricity price volatility
- Reduce air pollutants
- Reduce greenhouse gas emissions

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hgolub@nixonpeabody.com

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# Enacting RPS (cont'd.)

- Reduce nuclear waste
- Increase electricity costs

## ➤ Politics

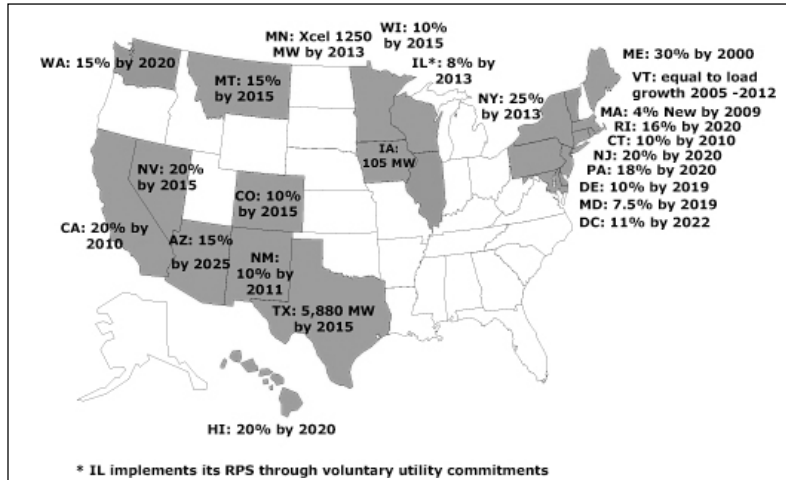
- Legislatures enacting RPS evenly divided between Democratic and Republican control
- Adopted by initiative in 2 states
- Passed by U.S. Senate in 2005 but failed in House of Representatives; will probably be re-introduced

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## RPS Have Been Adopted In 22 States



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## RPS Vary Significantly

- Target Levels and Deadlines
- Definitions of Renewable Resources
- Scope of Entities Subject to RPS

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## Target Levels and Deadlines

- Arizona: 15% by 2025
- California: 20% by 2010
- Colorado: 10% by 2015
- Hawaii: 20% by 2020
- Montana: 15% by 2015
- Nevada: 20% by 2015
- New Mexico 10% by 2011
- Texas 5880 MW by 2015
- Washington 15% by 2020

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## Definitions of Renewable Resources

- Solar Thermal
- Solar Photovoltaic
- Wind
- Biomass
- Specified biomass (low NOX biomass; agricultural, wood, animal wastes; incineration of poultry litter; etc.)
- Municipal solid waste
- Landfill gas

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## Definitions of Renewable Resources (cont'd)

- Wastewater treatment gas
- Fuel cells
- High efficiency co-generation
- Small hydroelectric
- Specified small hydroelectric (run-of-the river; projects which meet high environmental standards)
- Ocean Thermal
- Ocean Tidal
- Demand-side management/energy efficiency

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## Scope of Entities Subject to RPS

- Investor-Owned Utilities typically included
- Smaller IOUs sometimes exempted
- Publicly-Owned Utilities usually exempt, but some exceptions
- Federal agencies exempt

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## California Case Study

- Enacted 2002; accelerated by CPUC order and 2006 legislation
- Legislative and CPUC interest in increasing target to 33% by 2020
- 1800 mw under contract by early 2006
  - 50% on schedule
  - 40% delayed
  - 10% canceled
- Unclear whether RPS target will be achieved
- Complaints that system is unduly complex

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## Colorado Case Study

- Enacted 2004 by initiative
- Legislative efforts to enact RPS failed
- Major support for initiative based on potential economic development and property tax revenues

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## Texas Case Study

- Enacted 1999; expanded 2005
- Over 1300 MW added by 2005
- Had become a net importer of fossil fuels
- Concerned about energy supply, air quality
- Uses RECs

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## Market Impacts

- Most economic analyses indicate rate increases less than 1%
- Median retail rate increase of 0.7% or .04¢/Kwh
- Some analyses project rate decreases
- Employment gains?
- Downward pressure on natural gas prices?
- Impact on competition?

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