

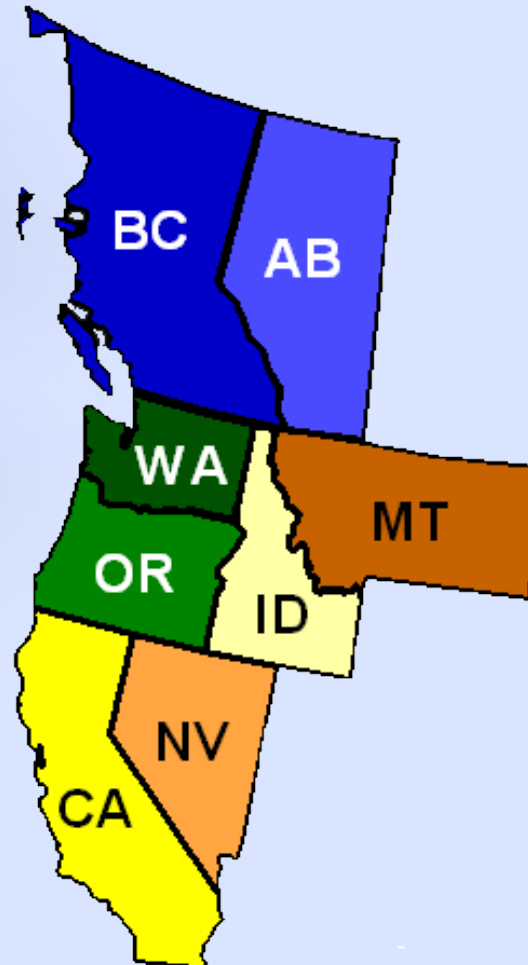


Potential  
Opportunities  
for WRBA  
Members

***39<sup>th</sup> Annual Conference***  
***March 11, 2009***

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# Member Locations



# Current Situation - Biomass

- Rise of Renewable Portfolio Standards
- Rise of Carbon Legislation
- Fossil Fuel “Avoided Costs” Rising in Fits and Starts
- Numerous State/ Federal Incentive/ Programs
- Stimulus Legislation

# U.S. Federal Incentives

- Production Tax Credit
  - 1 ¢/Kwh escalating
  - 10 years
  - In service by 12/31/13
  - Nonprofits can issue Clean Renewable Energy Bonds
- Investment Tax Credit
  - 30% if in construction by 2010
  - Trade for 30% federal grant
  - Eliminate PTC

## U.S. Federal Incentives (Cont.)

- Combined Heat & Power Tax Credit
  - Up to 10% ITC
  - Dependent on size, efficiency
- USDA/ DOE grant/ loan guarantee programs

# Canada – Federal Incentives

- Renewable Power Production Incentive (RPPI)
  - 1 ¢/Kwh fixed
  - 10 year term
- Emerging carbon credit market
  - Driven by Kyoto compliance



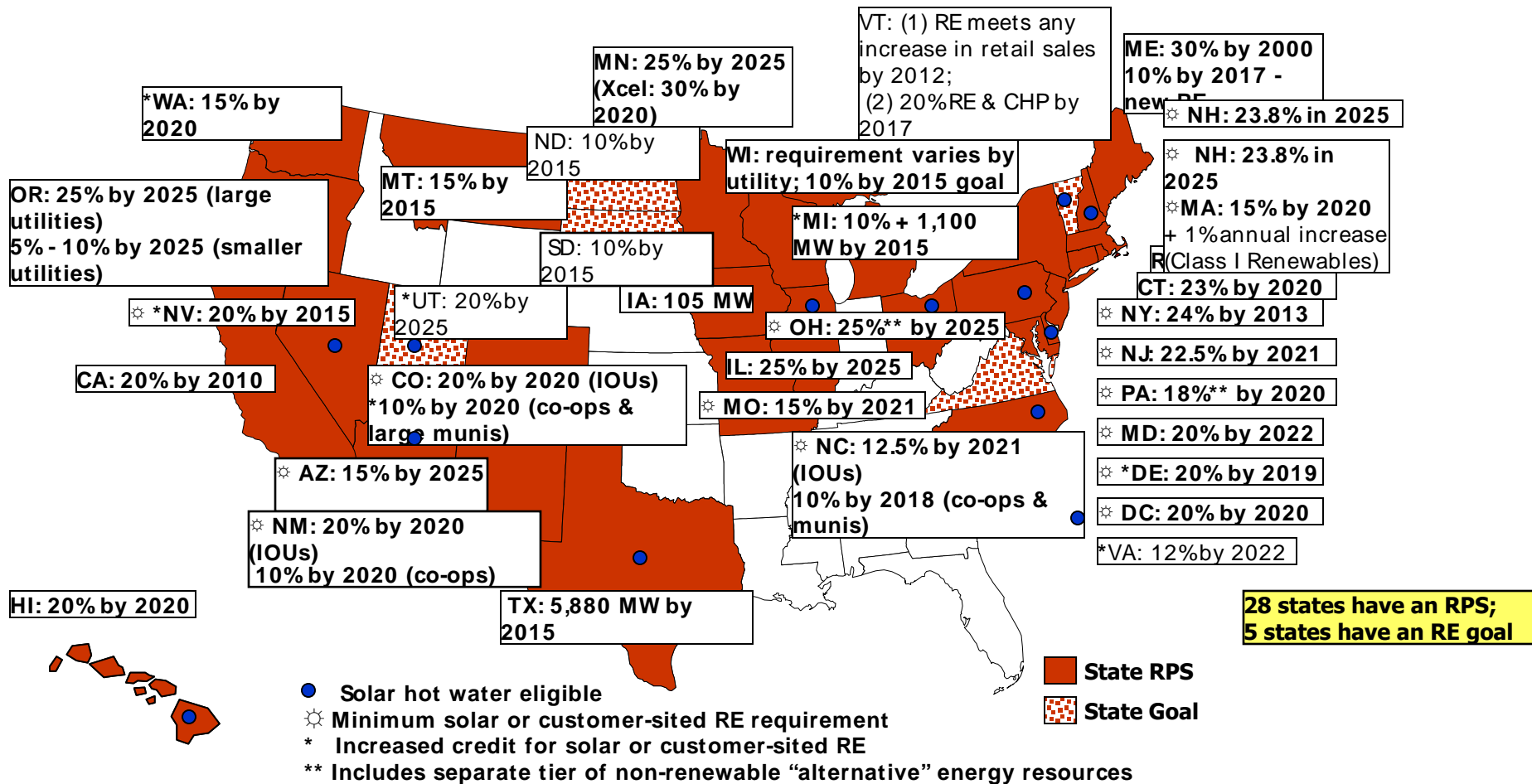
# Western Regional Situation

- Most states with Renewable Portfolio Standards (RPS)
  - Some allow credits from other states
- Regional green credit trading market
  - WREGIS system in place
  - Definition of environmental attributes preserves carbon sales potential
- Various other incentives in place

DSIRE: [www.dsireusa.org](http://www.dsireusa.org)

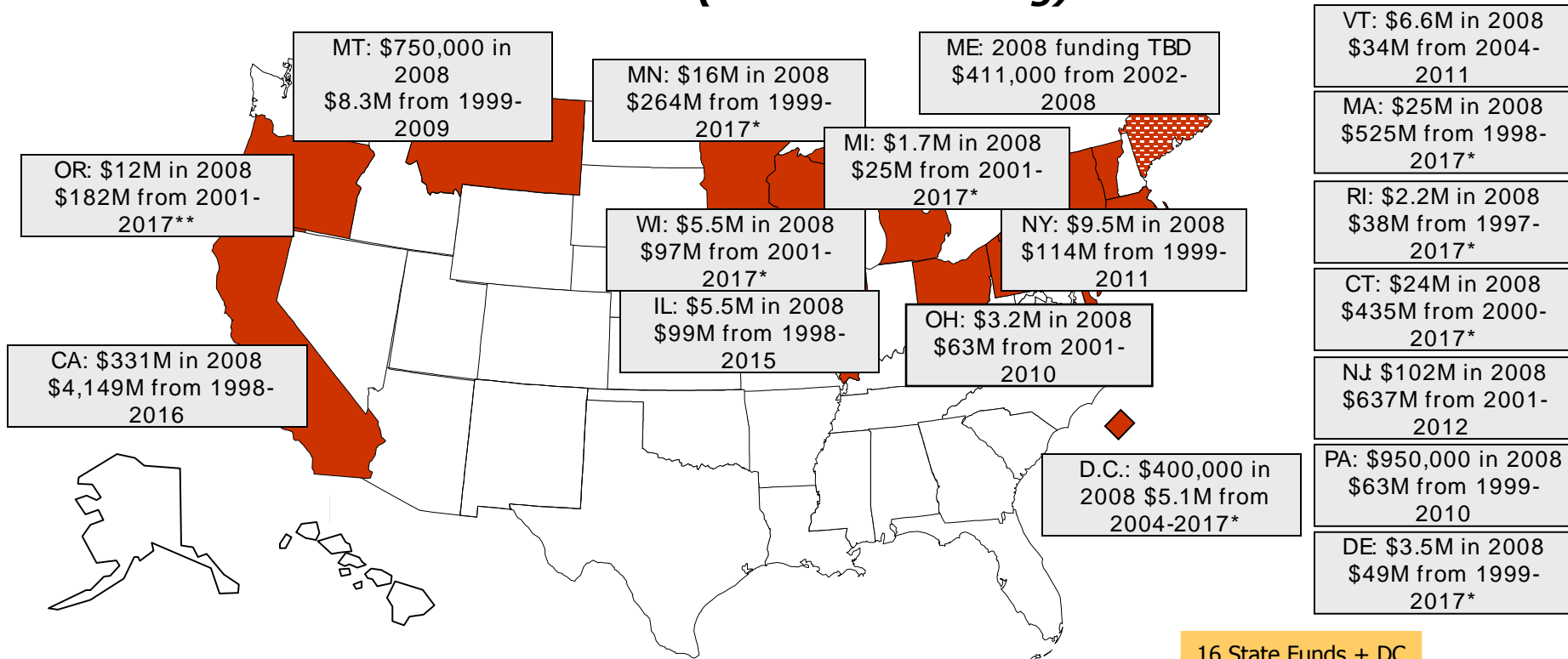
March 2009

# Renewables Portfolio Standards





## Public Benefits Funds for Renewables (Estimated Funding)



16 State Funds + DC  
~\$6.8 B by 2017

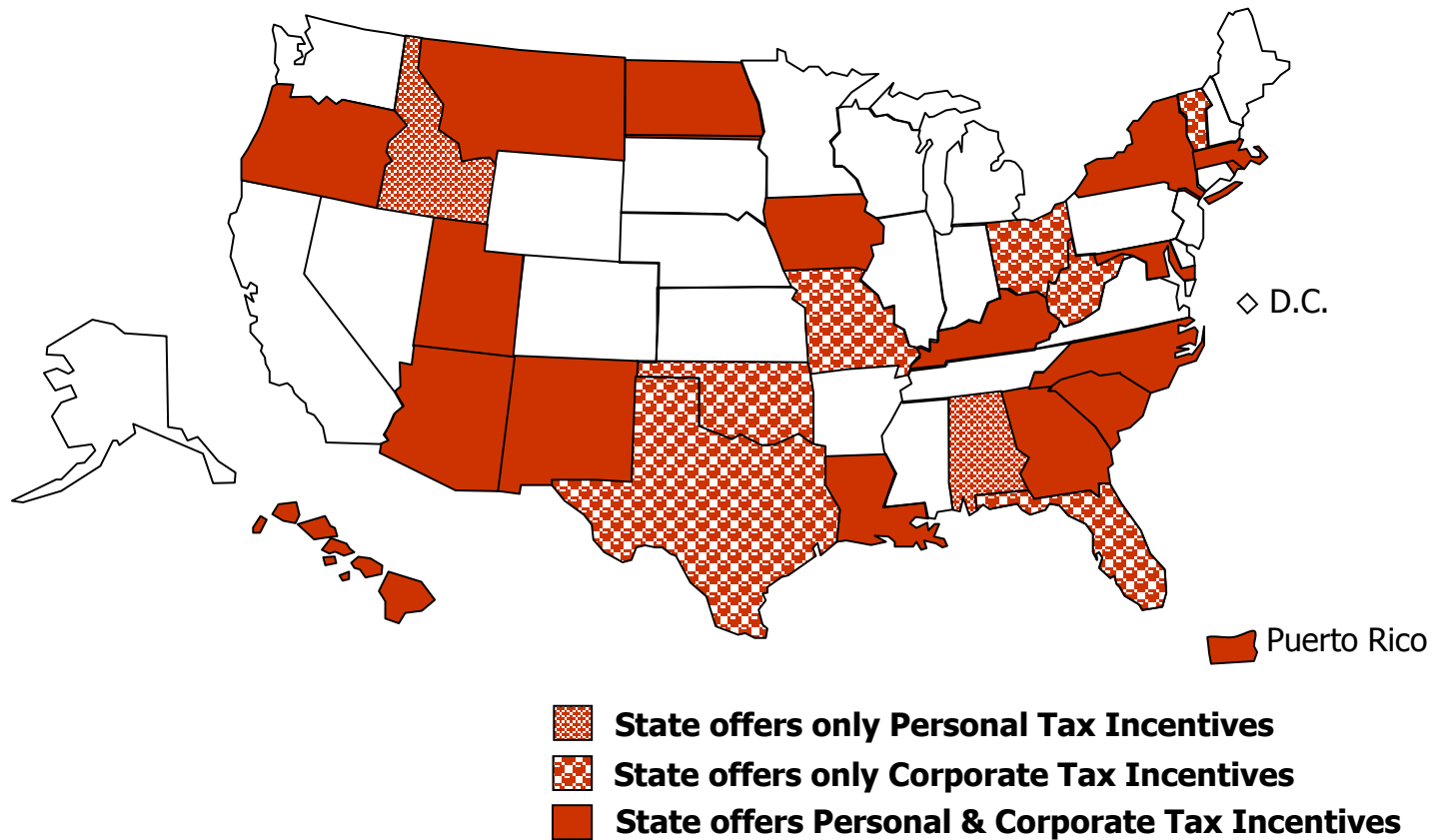
\* Fund does not have a specified expiration date.

\*\* The Oregon Energy Trust is scheduled to expire in 2025.

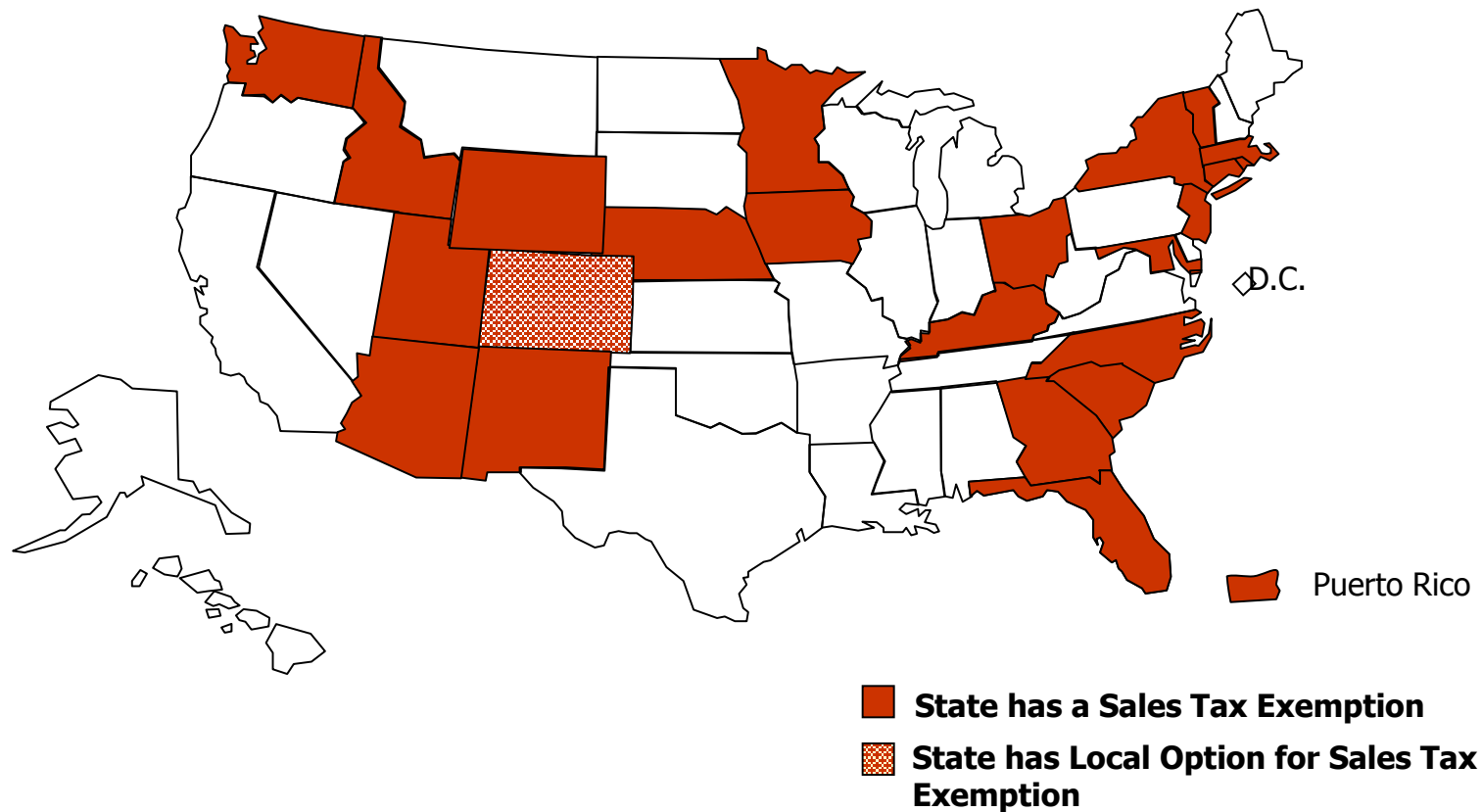
(NOTE: Slides 2-9 explain the methodology for calculating funding estimates.)

Funded by voluntary contributions

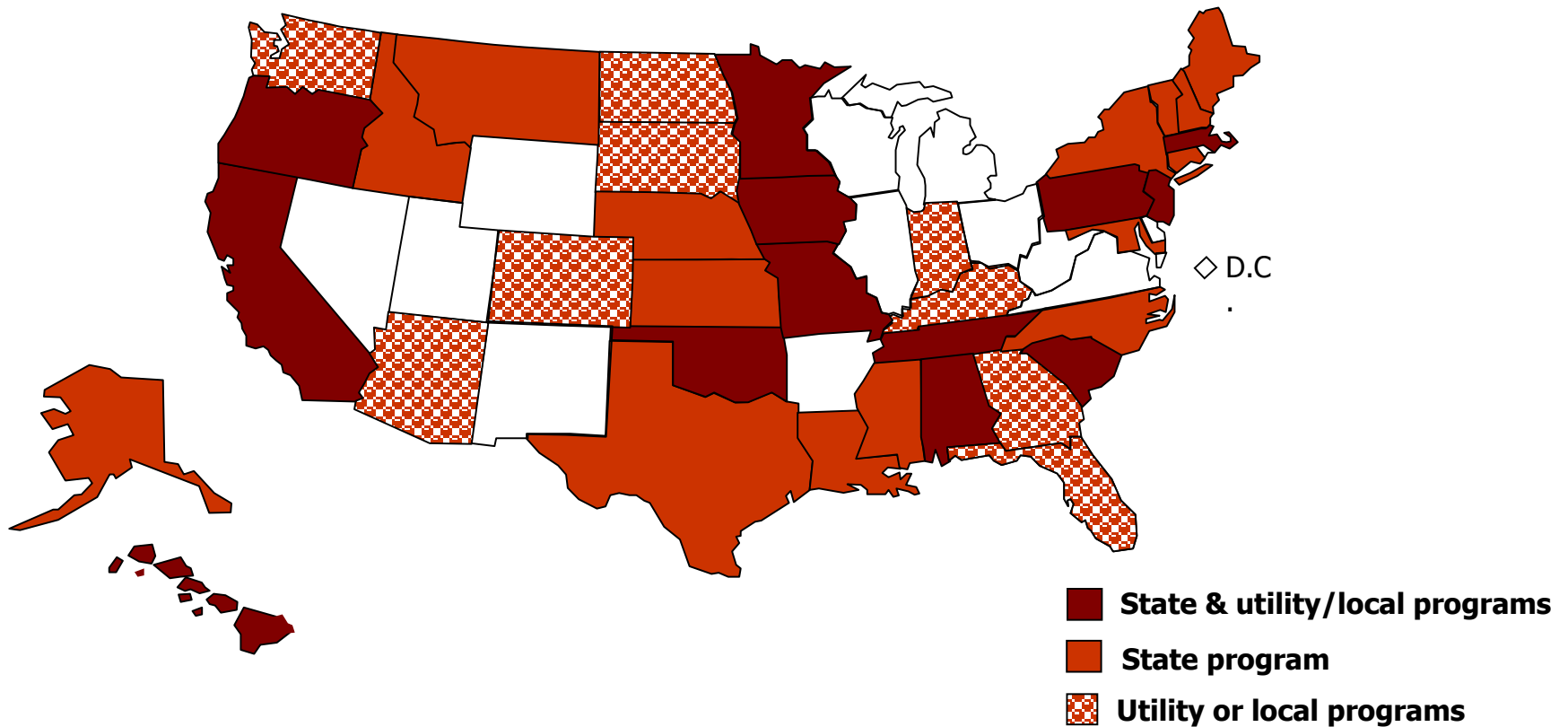
# *State Income Tax Credits & Deductions for Renewables*



# *State Sales Tax Exemptions for Renewables*



# *Loan Programs for Renewables*



# State/ Province Summary – British Columbia

- BC Hydro only market
  - Issues periodic calls for green power
  - Not sure where it will end up (early experience bad)
- Membership in WREGIS may create Green Tag opportunity

# State/ Province Summary – Alberta

- Wide open power market
  - Extreme volatility (\$8-1000/ MWH)
  - Easy entrance to market
  - Emerging market for green tags
  - Totally different business model
    - Overbuild
    - Hoard fuel until prices jump
    - Steam host for low level operation



# State/ Province Summary- Washington

- Puget, PacifiCorp and Avista hold auctions for new renewable capacity
- Much of state in hands of PUD's
  - Just beginning to be interested buyers
  - Not easy to wheel through
- Aggressive RPS of 25% by 2025, but no black liquor

# State/ Province Summary-Idaho

- Avista, PacifiCorp, Idaho Power have posted avoided cost rates
  - Starting at \$50/MWH and escalating
  - Depends on need for new capacity
- Renewable Energy Project Bond Program
  - State will issue bonds to finance your project
- No RPS

# State/ Province Summary- Montana

- RPS of 15% in 2015
  - Applies to investor owned utilities
  - Allows purchase of green tags for compliance
  - Biomass must be “non-toxic” and “low emission”
  - Must purchase 75 MW of 5MW and smaller locally owned projects

# State/ Province Summary- Montana (Cont)

- Corporate Tax Credit
  - 35% of cost of project as credit
  - Must be against tax due from project
  - Can be carried forward for 7 years
- Corporate Property Tax Reduction
  - 50% Reduction for 15 years
  - Must choose tax credit or property tax reduction

# State/ Province Summary- Oregon

- PacifiCorp and PG&E have posted avoided costs
  - About \$65/MWH, through 2011 and then inflate rapidly
  - Green tags stay with seller when selling at these rates
- Business Energy Tax Credit (BETC)
  - 50% of cost of project on 10/10/10/10/10 basis
  - Maximum of \$20 million in project cost
  - Can be sold up front to help finance project

# State/ Province Summary- Oregon (Cont.)

- Energy Trust of Oregon
  - \$10 million per year in renewable grants
  - Held biomass solicitation (now invite projects to apply)
  - Demand green tags in exchange for grant (fatal flaw)
  - Forest Fuel Tax Credit
    - \$10/ GT State Income Tax Credit (can be sold)
    - Requires transfer of ownership



# State/ Province Summary- Nevada

- RPS of 20% by 2015
  - Allows green tag purchase
  - Utilities currently falling short
- Corporate Property Tax Reduction
  - 50% reduction for 10 years
- Corporate Sales Tax Exemption
  - 100% of project exempt

# State/ Province Summary- California

- RPS of 20% by 2010 (Goal of 33% by 2020)
  - Does not allow green tag compliance for PG&E, SCE, SDG&E (vote on tradeable green tags)
  - Does allow green tag compliance for PacifiCorp, Sierra Pacific Power
  - This will require 8-10,000 MW by 2010
  - Satisfied by auctions
    - Posted MPR's of 10-11 ¢/kwh

# State/ Province Summary- California (Cont.)

- Renewable Resource Trust Fund
  - Applies only to PG&E, SCE, SDG&E
  - Off-peak payment to existing biomass plants
  - Supplemental energy payments to accepted new projects above MPR
  - \$140 million collected annually

# Regional Roundup- Pacific Northwest

- BPA finally defined post 2011 program
  - Finally starting to stir on renewables
  - RFI/ RFP
- CA Tradeable Green Tag Program has huge implications
- National RPS will fill in gaps in region (ID, WY, UT)

# Regional Roundup- Pacific Northwest (Cont)

- Biomass power prices rising
  - Despite softness in fossil prices
  - 6 ½ -7 ¢/kwh without green tags
  - 8 ¢/kwh with green tags
- Boost from Stimulus Bill grants
  - Limited time horizon

# What to do with “Old” Plants

- PTC for existing plants expires on 12/31/09
- Pre 2005 plants do not qualify for most RPS programs
- In national RPS Bill, green tags cannot be traded
- Plant can be made “New” according to IRS
  - Current FMV can be only 20% of “New” value
  - Would then qualify for PTC/ ITC grant
  - Could qualify for state RPS programs
  - May get other grants if “New” money is for efficiency improvements, pollution control



# Bottom Line

- Worst time for forest products industry in our lifetime
- Best time for biomass power industry in our lifetime
  - If you need steam/hot water for heating, you can likely justify biomass cogen