Renewables Portfolio Standards: Introduction to Design and Implementation Issues

Blair Swezey

Principal Policy Advisor

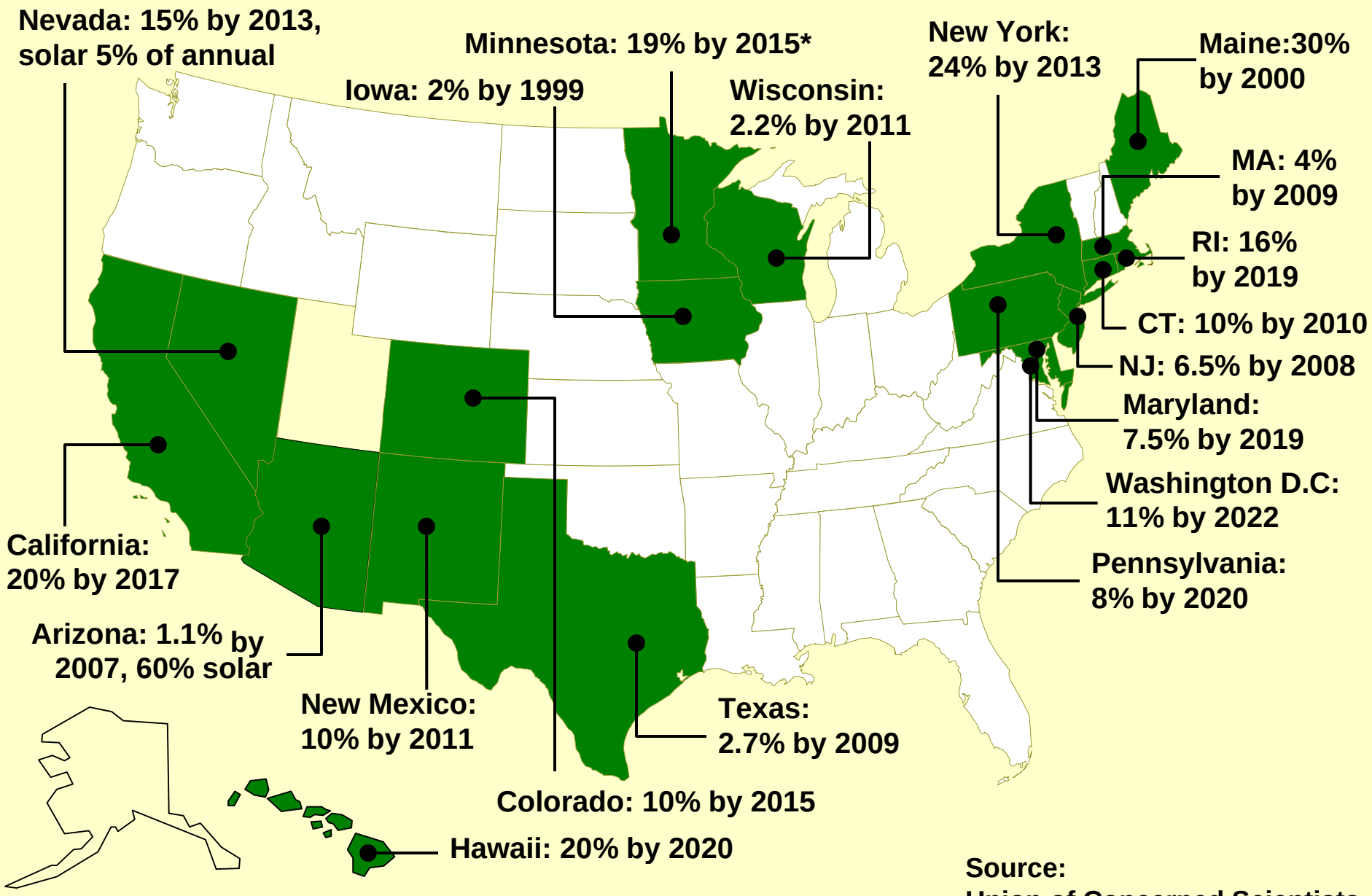
National Renewable Energy Laboratory

Golden, Colorado

Current Status of RPS Policies

- **18 states (+ DC) have a RPS policy.**
- **RPS requirements range from 1.1% (AZ) to 30% (ME).**
- **Additional states are considering (IL, MT, NC).**
- **Some states with RPS are considering an increase of the level (AZ, IA, TX, WI) or acceleration of timeline (CA).**
- **Some states not meeting near-term compliance requirements (MA, NV). Other states will comply early (CO, TX).**

Renewable Electricity Standards



*Includes requirements adopted in 1994 and 2003 for one utility, Xcel Energy.

Source:
Union of Concerned Scientists

State RPS Policies are not Uniform

- RPS structure
- Standard levels
- Resource eligibility
- Tiers and bands
- Extra credit for certain resources/technologies
- Treatment of existing plants
- Start and end dates
- Cost caps
- Cost recovery mechanisms
- Obliged parties
- Procurement mechanisms
- Enforcement/penalties
- Compliance flexibility
- Renewable energy credit (REC) trading
- Administration

Good Reference Document on RPS Design and Implementation

Evaluating Experience with Renewables Portfolio Standards in the United States

March 2004

Ryan Wiser, Kevin Porter and Robert Grace

Published by Lawrence Berkeley National Laboratory

http://eetd.lbl.gov/ea/ems/reports/54439.pdf

Some RPS Design/Implementation Issues

- **RPS Cost**
  - **Waiver available if RPS cannot be met in a cost-effective manner (CA, CO, HI, MN)**
  - **Cost caps (CO, NM)**
  - **How do you measure?**
- **Cost Recovery**
  - **Full cost recovery allowed (CO, DC, PA, RI)**
  - **Use existing clean energy funds (AZ, CA, MA)**
  - **Customer surcharge created (NY)**
- **Utility Incentives or Penalties for Non-Compliance?**

NREL

Some RPS Design/Implementation Issues (cont.)

- **Resource Selection Process**
  - Utility or State Administration?
    - (NY Program administered by NYSERDA)
  - Bidding through RFPs? (CA)
  - RE Supplier (RECs) competition?
- **Contracting**
  - Minimum contract periods
    - 10 years (CA, NV, NM)
    - 20 years (CO)

Some RPS Design/Implementation Issues (cont.)

- **Ownership of Renewable Attributes**
  - PURPA contracts
  - Customer-owned systems, including net metering and state/utility supported
  - Voluntary customer green power purchases
- **Treatment of Out-of-State Generation**
  - Eligible sources must be physically delivered to the state or control area (DC, NM, NY, RI, TX)
- **Bonus Compliance Credits**
  - In-state generation (AZ, CO)
  - In-state content/manufacturing (AZ)
  - Early compliance (DC, MD)

Some RPS Design/Implementation Issues (cont.)

- **Banking of Credits**
  - Can utilities/suppliers bank credits for future years? (MA, NV, NM, PA, RI, TX, WI)
  - Helps address annual resource fluctuations and "lumpiness" of supply investments.
- **Solar Component**
  - Solar tiers/set-asides (AZ, CO, DC, NV, NJ, NY, PA)
  - Rebates for solar systems (CO)
  - Extra credit given to solar (MD, NV, NM)