

# Charting a Course to Energy Independence

Providence, RI  
August 9-12, 2009





# Renewable Energy Certificates

- A REC represents the property rights to the environmental, social, and other nonpower qualities of renewable electricity generation. A REC, and its associated attributes and benefits, can be sold separately from the underlying physical electricity associated with a renewable-based generation source.

Source: EPA Green Power Partnership



# Why Purchase RECs

- EO's 13123 and 13423, EPAct05 established renewable energy goals
- For many RECs are the only option
  - Lack space or funds to build
  - Tenant activity
  - Poor location
- Often purchased for LEED certification



# Federal Renewable Requirements

- EPAct 05
  - Section 203- not less than 3% in FY07 – FY09, 5% in FY10 – FY12 and 7.5% FY13 – and thereafter
- NDAA 2007 (DoD only)
  - Section 2852 – 25% in 2025 and each year thereafter
- HR 2454 (not Senate approved)
  - Section 103: FY12/13 – 6%, FY14/15 – 9.5%, FY16/17 – 13%, FY18/19 – 16.5%, FY20-39 – 20%



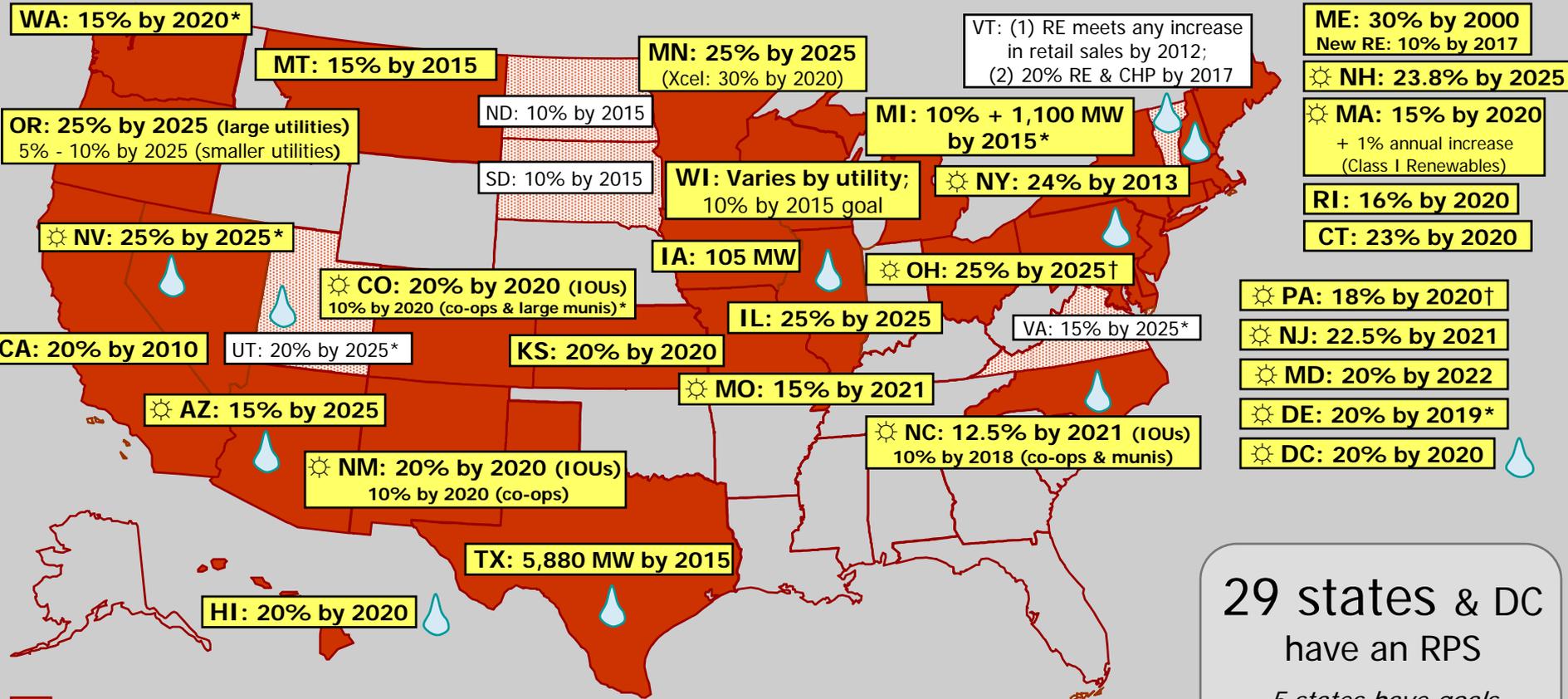
# REC Retention

- EPAct05 — (section 203)
  - Renewable energy doubled if produced and used on site at a Federal facility, produced on Federal or Indian land and used at a federal facility
- REC trading/swapping
  - Sell/swap high priced RECs to finance projects
  - Purchase/swap qualified lower priced RECs
- RECs sold but not replaced do not contribute to the goals



# Renewable Portfolio Standards

[www.dsireusa.org](http://www.dsireusa.org) / July 2009



29 states & DC  
have an RPS  
*5 states have goals*

-  State renewable portfolio standard
-  State renewable portfolio goal
-  Solar water heating eligible
-  Minimum solar or customer-sited requirement
-  Extra credit for solar or customer-sited renewables
-  Includes separate tier of non-renewable alternative resources



# Solar Cutouts

- States with special requirements for solar:

CO (4%/2020)

NJ (2.12%/2021)

DE (2.005%/2019)

NM (20%/2020)

MD (0.3%/2022)

NC (0.2% by 2018)

MO (0.3%/2021)

OH (0.5%/2025)

NV (5% thru 2015, then 6%)

PA (0.5%/2020)

NH (0.3%/2025)

DC (0.4%/2020)

Some states have additional cutouts, some ratchet, some specify only end results. New Jersey offers substantial incentives for solar



# DESC Services

- Federal customers utilizing DESC to purchase RECs to help meet the goals:
  - Air Force, DOE, EPA, NASA, FDA, NIST, DOI, Indian Health Service, IRS, USDA, DHS
- Aggregation of requirements
- No Set Procurement Actions



# DESC Customer Requirements

- REC Procurement – what to include
  - If you have a technology preference specify
  - Online pre- or post- January 1, 1999
  - Delivery date(s) and quantity
  - RECs are valid 6 mos. prior and 3 mos. after calendar year in which they were generated



# DESC Contractor Requirements

- Verification-Independent 3<sup>rd</sup> party
- Identify Source Locations to be used
  - » Deliveries limited to approved list
- Must include an annual audit report
  - » Performed by CPA within 30 days after delivery period
  - » Affidavit that the project(s) generated enough RECs
  - » Affidavit that offeror has not sold renewable power twice
  - » Seller has transferred all applicable emissions reductions credits attributable to the generation
  - » RECs provided are not also being used to meet state RPS
- Provide Attestation Form



# History

- RECs a short-term fix for a long-term problem
  - Maybe – could be for longer than expected
  - REC acquisitions have decreased as project development has increased – but now the goals are increasing
  - Always a premium
- Price History
  - FY06 purchased 1,129,997 MWh @ average \$0.73/MWh
  - FY07 purchased 886,687 MWh @ average \$1.36/MWh
  - FY08 purchased 221,234 MWh @ average \$3.70/MWh
  - FY09 averaging \$1.175/MWh



# DESC FY09 Purchase Statistics

- FY09 - 523,698 MWh purchased
    - 230,819 post January 1, 1991 (old)
    - 292,879 post January 1, 1999 (new)
    - 95,585 specified as wind
    - 49,750 specified as landfill gas
    - 17,750 specified as waste-to-energy
    - 50,500 specified as biomass
    - 310,113 no specific technology\*
- \*wind/solar/geothermal/biomass required  
(technologies awarded were not solicited as a specific technology)



# FY09, 3<sup>rd</sup> Qtr Purchases

- DOE – Portsmouth/Paducah (two awards)
  - + Award #1
    - New – Online after Jan 1, 1999
    - 12,500 MWh, delivery Sept 30, 2010
    - Wind/solar/geothermal/biomass
    - New (FY10) \$0.00169/kwh
  - + Award #2
    - New and “old”
    - 21,500 MWh, delivery Sep 09 and Sep 10
    - New (FY09) \$0.00108, Old (FY09) \$0.0007
    - Old (FY10) \$0.0008



# Purchases (cont.)

- NASA (6/04/09)
  - For LEED Cert
  - 4,010 MWh, ½ Jun 09, ½ Jun 10
  - New wind \$0.0018
- NIH (6/4/09)
  - Lowest cost available
  - 17,750 MWh, Sep 30, 2010
  - Waste to Energy (old) \$0.00115/kWh



# Purchases (cont.)

- NIH (6/15/09)
  - New wind/solar/biomass/geothermal
  - 76,000 MWh, ½ Sep 11, ½ Sep 12
  - Combination \$0.00174 (11), \$0.00198 (12)
- Air Force – Air Mobility Command, Air Reserve, Arnold AFB (7/15/09)
  - New wind/solar/biomass/geothermal
  - 38,045 MWh, delivery 09/30/09
  - \$0.00108



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# QUESTIONS?