

BUILDING A WORLD OF DIFFERENCE®



Renewable Portfolio Standards: Experience to Date

Florida Public Service Commission Renewables Workshop

Ric O'Connell

January 2007

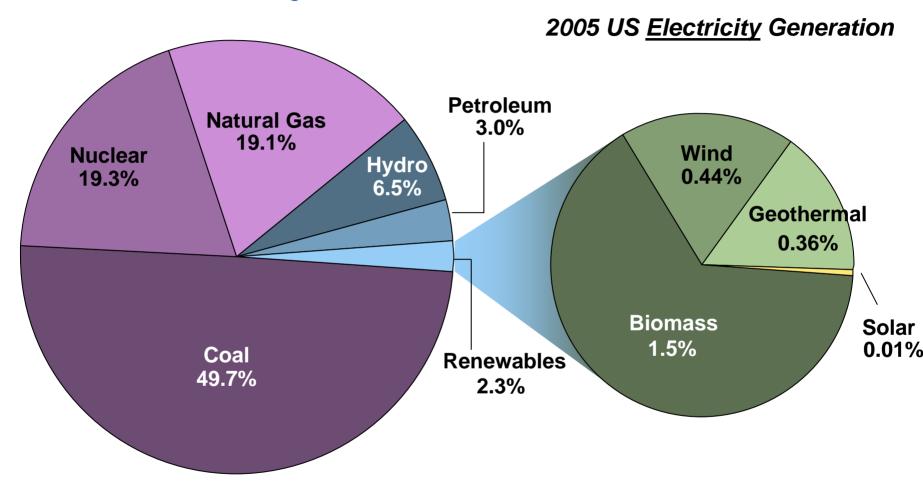


Agenda

- Renewable Energy Overview
- RPS Overview and Status of Implementation
- Status of RPS Compliance



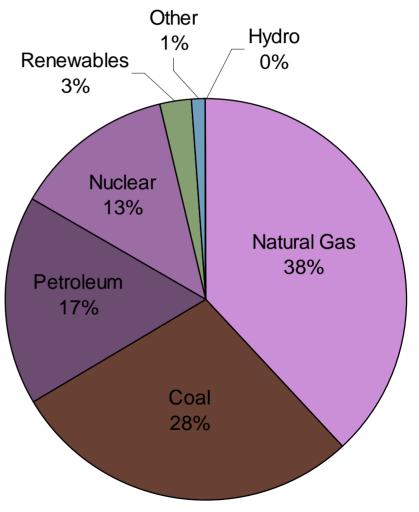
What Are the Major Renewables?





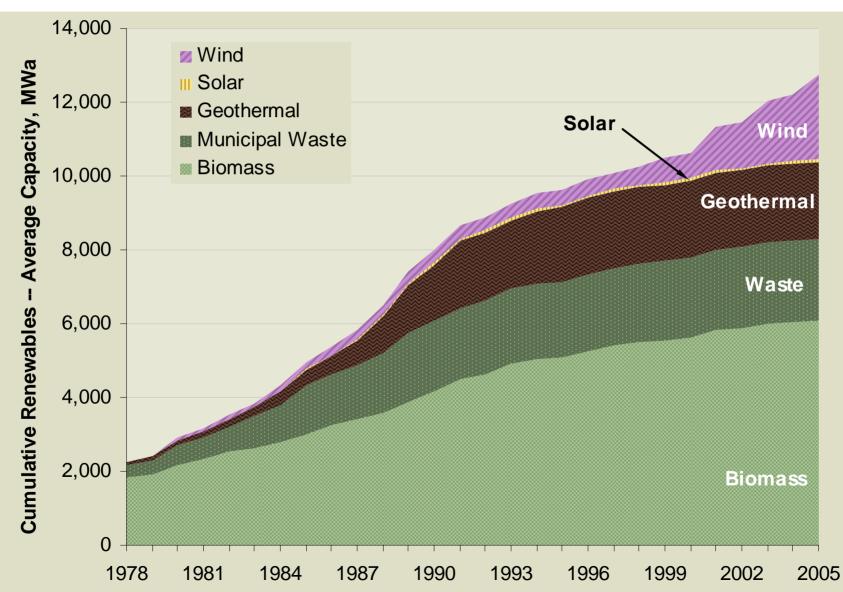
Florida Electrical Energy Generation (2005)

- Florida represents:
- 45% of all petroleum consumed for electricity in the US
- 12% of all natural gas consumed for electricity in the US
- Of renewables, roughly 85% is MSW, 15% is Biomass



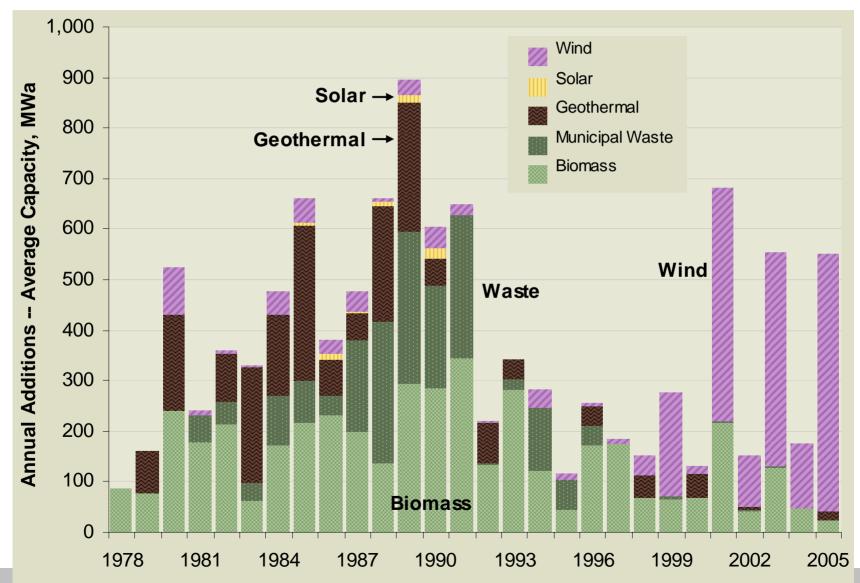


Cumulative US Non-hydro Renewable Capacity, MWa



Black & Veatch Analysis of data from Global Energy Decisions Energy Velocity database

Annual Capacity Additions, MWa



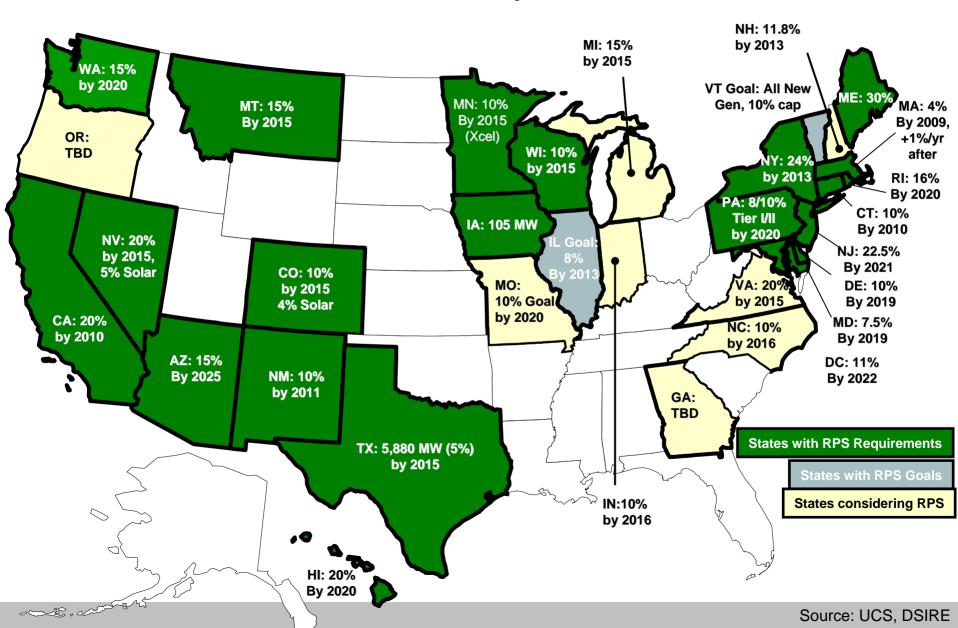
Black & Veatch Analysis of data from Global Energy Decisions Energy Velocity database



Renewable Portfolio Standards

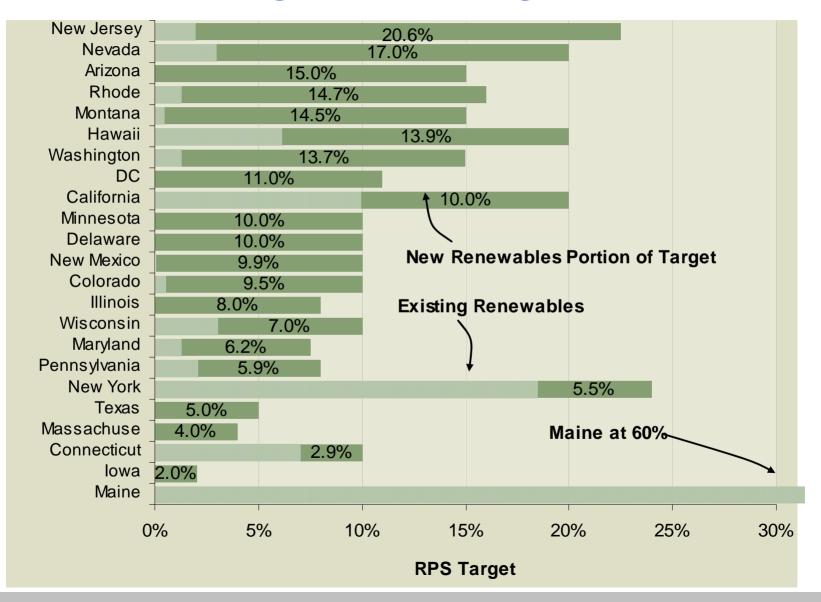
- 21 States plus Washington DC
 - 2 states with goals, 7 states considering RPS
- States with RPS covers 45% of US retail sales
- Including states with Goals or considering an RPS covers 2/3 of US retail sales
- Current RPS standards mandate roughly 160,500 GWh of new renewable generation
 - Roughly 20% of all new generation by 2020 will be renewable based on current RPS

State Renewable Portfolio Standards January 2007



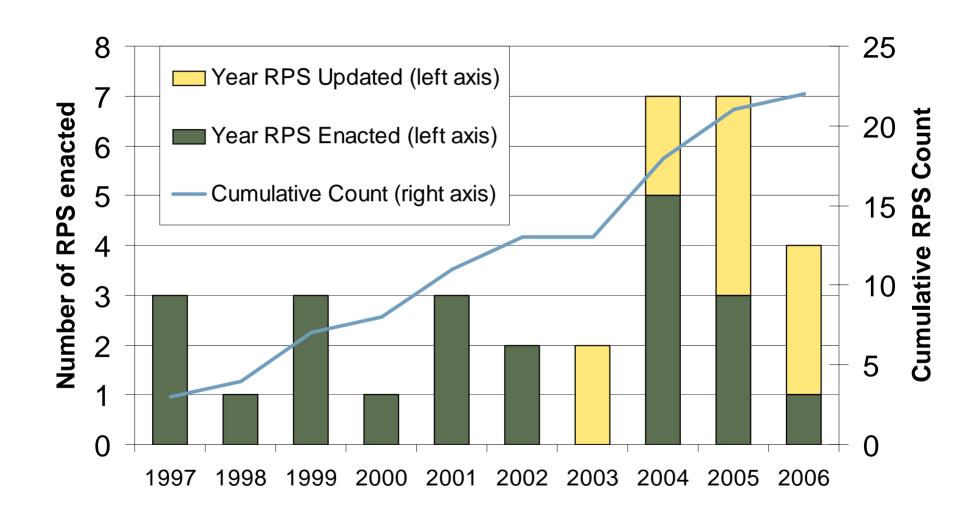


RPS Incremental Targets and Existing Renewables



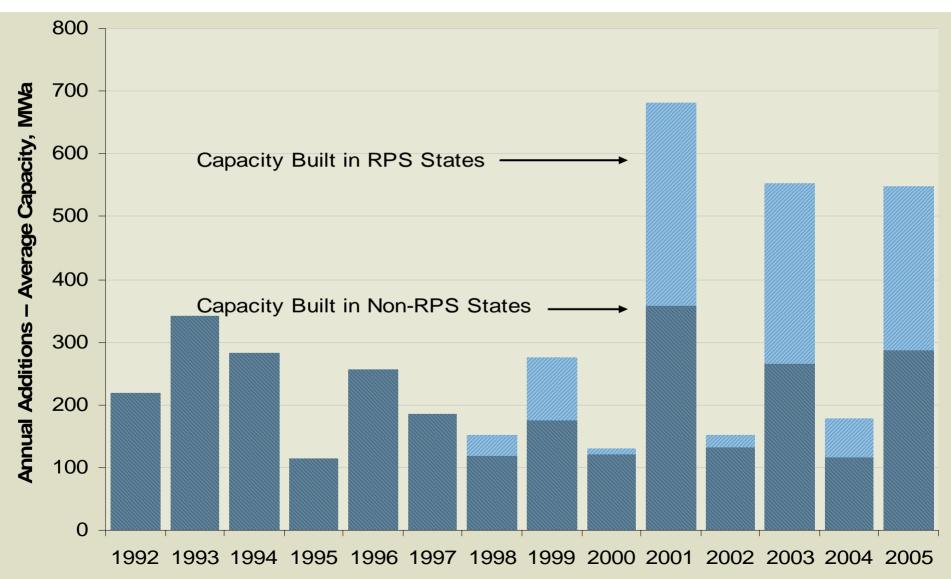


The RPS is Recent: Enactments and Updates





RPS Capacity Additions



Black & Veatch Analysis of data from Global Energy Decisions Energy Velocity database



RPS Compliance Status

RPS Targets Largely Met (6)	Texas, Minnesota, Iowa, Hawaii, New Jersey, New Mexico
RPS Challenges (7)	
RPS ineffective	Maine
RPS targets not met	California, Nevada, Massachusetts
Initial RPS Flawed, New RPS	Arizona, Connecticut, Pennsylvania
Too early to tell (8)	Colorado, DC, Delaware, Maryland, Montana, New York, Rhode Island, Wisconsin