California RPS
Innovations and Best Practices

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California Energy Commission

• Primary energy policy and planning agency
• License thermal power plants ≥50 MW
• Set building and appliance efficiency standards
• Fund energy research and development
• Promote renewable energy resources
• Emergency planning
California’s RPS Program

• 2002: 20% of retail sales from renewable resources by 2017
• 2006: target date accelerated to 2010
• 2011: percentage target increased to 33% by 2020
• Energy Commission role:
  – Certify renewable facilities as RPS-eligible
  – Track and verify all renewable generation claimed for RPS obligations
  – Adopt regulations for POUs and determine RPS compliance
Portfolio Content Categories

PCC 1: Energy and RECs delivered to California balancing authority – min 50% 2013, 65% 2016, 75% 2020

PCC 2: Renewable generation firmed and shaped with substitute electricity scheduled into California balancing authority within same calendar year – no limits

PCC 3: Unbundled RECS – max 25% 2013, 15% 2016, 10% 2020

PCC “O”: Contracts executed before 6-1-10 – “count in full”
Multi-Year Compliance Periods

• Shift from annual compliance smoothes out uncertain renewable procurement from variable resources

• Provides flexibility for utilities to develop procurement strategies that best meet their needs

• Annual reports still required to monitor progress
Compliance Waivers

• Investor-owned utilities: CPUC developing “procurement expenditure limitation” to contain costs

• Publicly owned utilities:
  – Some exemptions in statute for small POU's
  – Others can adopt cost limitation strategies or claim conditions beyond POU control (e.g. transmission, permitting, interconnection issues)
Questions?
California's 2013 Electricity Mix

- Natural Gas: 44%
- Coal: 8%
- Unspecified: 12%
- Renewables: 19%
- Nuclear: 9%
- Large Hydro: 8%
California Renewable Capacity and Generation (2013)

Capacity (megawatts)
- Wind: 41%
- Biomass: 7%
- Geothermal: 16%
- Small Hydro: 10%
- Solar PV: 21%
- Solar Thermal: 5%
- Wind: 41%
- Biomass: 14%
- Geothermal: 24%
- Solar (PV and Thermal): 10%
- Small Hydro: 7%
Renewables Portfolio Standard

- Target: 33% renewable by 2020
- Renewables 11% in 2002; 22% in 2013
- 7,000 MW capacity in 2002; 20,500 MW today