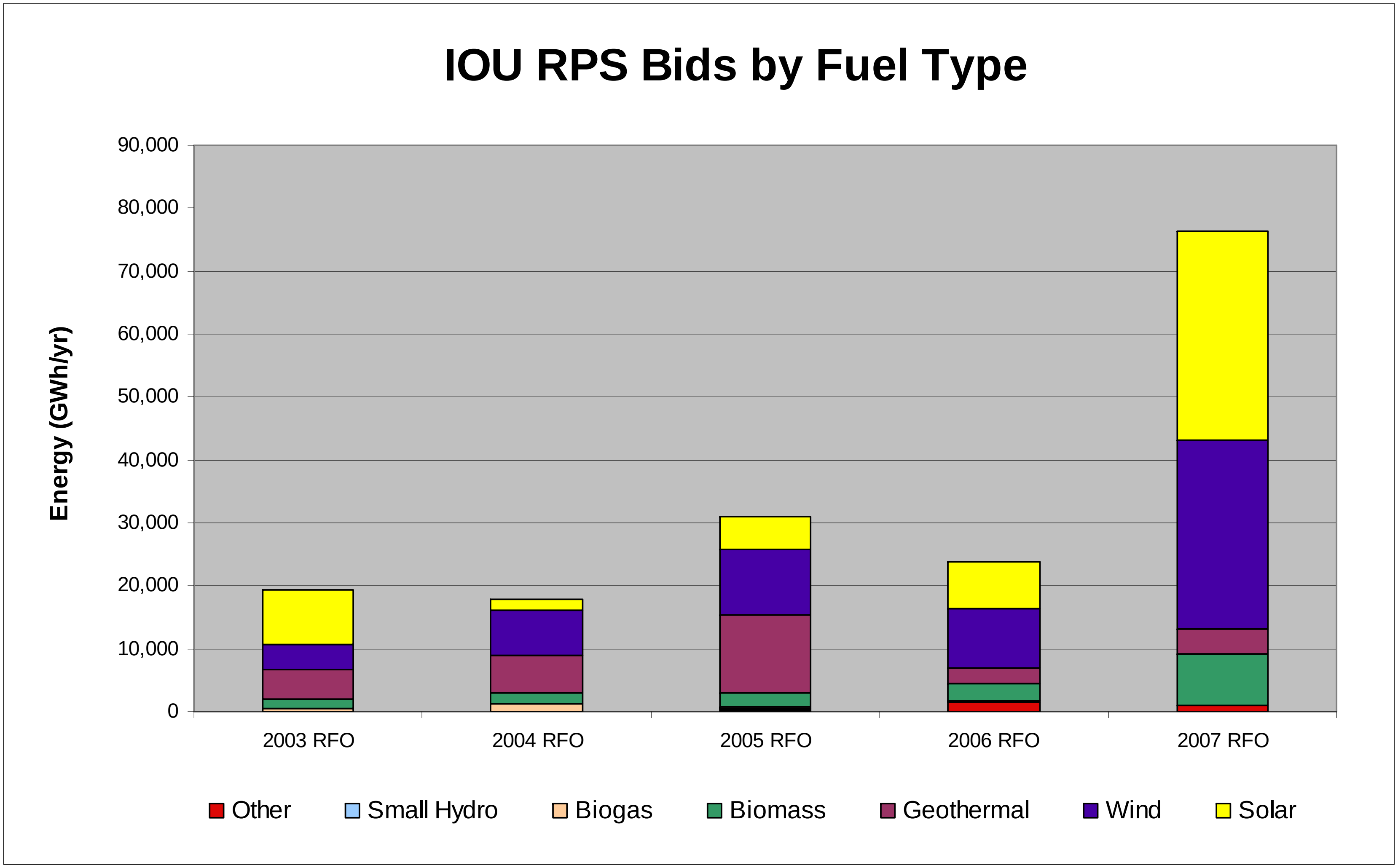
Status of California's Renewables Portfolio Standard

California Public Utilities Commission

June 30, 2008

RPS procurement process is working

- CPUC has approved 95 contracts for 5,900 MW for new and existing RPS capacity
  - 61 are contracts with new projects, totaling 4,480 MW
  - Were all approved capacity online by 2010, would more than achieve RPS target.
- Response to RPS solicitations robust and increasing, one indication that the market is maturing
  - 2008 RFO: IOUs have short-listed **~10 times** their incremental annual requirement
- Process emphasizes competitive solicitations with a focus on long-term contracts – key to project financing


IOU RPS Bids by Fuel Type
Energy (GWh/yr)
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
2003 RFO
2004 RFO
2005 RFO
2006 RFO
2007 RFO
Other
Small Hydro
Biogas
Biomass
Geothermal
Wind
Solar

RPS bid prices have increased 2002-2008

- Construction costs increasing for both renewable and conventional generation
- Resource mix is shifting
  - Little geothermal and biomass in response to recent RFOs
  - Increase in share of solar thermal and PV – relatively high installation costs and significant permitting challenges
- Many prime resource sites have already been developed
- Concern that constrained supply and policy-driven demand drive up costs

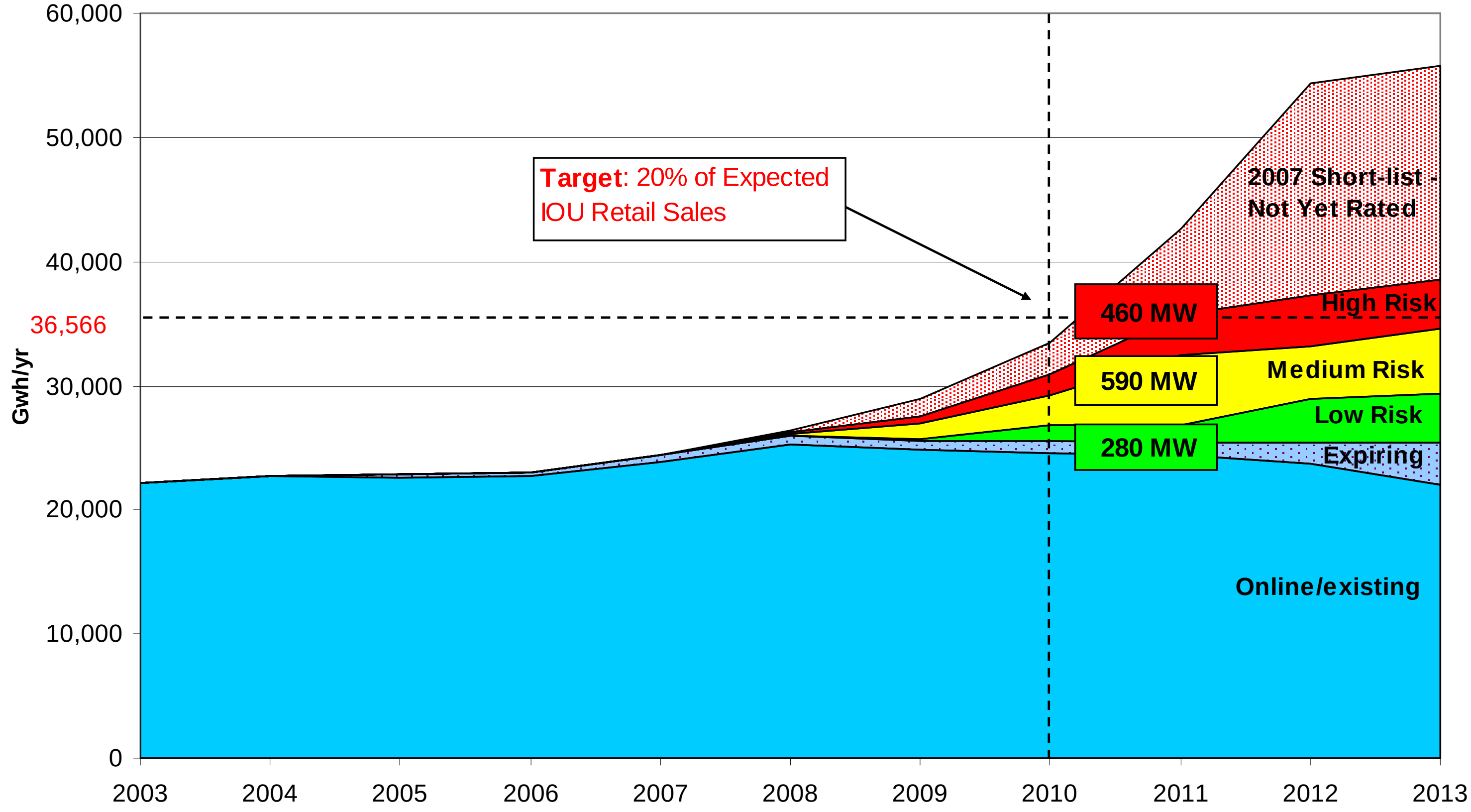
Project development has been slow

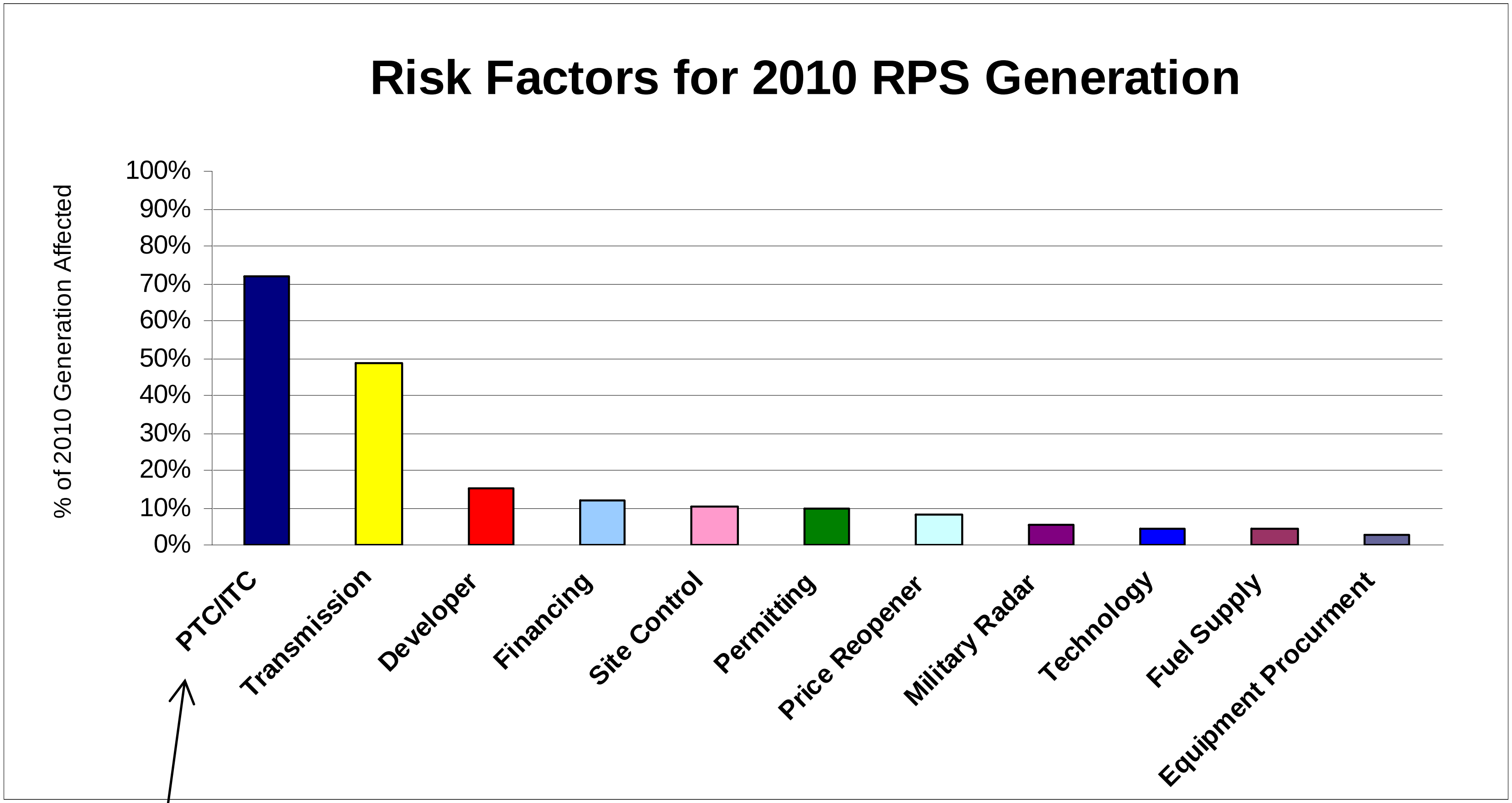
- Only 14 contracts for ~400 MW have come online; need about 3,000 more new MW in next 2 years for IOUs to meet 20% in 2010
- RPS generation has not kept pace with overall load growth

		2003	2004	2005	2006	2007
PG&E	RPS-eligible GWh	8,828	8,575	8,543	9,114	9,047
	RPS GWh as % of bundled sales	12.4%	11.6%	11.7%	11.9%	11.4%
SCE	RPS-eligible GWh	12,613	13,248	12,930	12,706	12,465
	RPS GWh as % of bundled sales	17.9%	18.2%	17.2%	16.1%	15.7%
SDG&E	RPS-eligible GWh	550	678	825	900	881
	RPS GWh as % of bundled sales	3.7%	4.3%	5.2%	5.3%	5.2%
TOTAL	**RPS-eligible GWh**	**21,991**	**22,500**	**22,298**	**22,719**	**22,393**
	RPS GWh as % of bundled sales	**14.0%**	**13.9%**	**13.6%**	**13.2%**	**12.7%**

Numbers in red represent year-on-year decreases in GWh or % terms

IOU Expected RPS Generation and Risk





Note: California has little control over this barrier

CPUC working to create multi-agency solutions to known 20% RPS barriers

- Transmission
  - Streamlined permitting process
  - Initiated Renewable Energy Transmission Initiative (RETI)
  - Working closely with California ISO on queue reform

- Site control
  - Beginning to work with BLM, other relevant agencies

- Permitting
  - California Energy Commission (thermal facilities)
  - County agencies (wind, thermal <50 MW)

Feed-in Tariff – key questions

- What is the problem that California is trying to solve?
  - Problem with the procurement process?
  - Problem with the project development process?
  - How significant are these problems?
  - How would a feed-in tariff address these problems?
- What challenges associated with implementation and administrative oversight might a feed-in tariff create?
  - Could these challenges outweigh the benefits of a feed-in tariff?

Questions?

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