



Progress Towards California's Renewables Portfolio Standard Goals

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Renewable percentages: progress to date

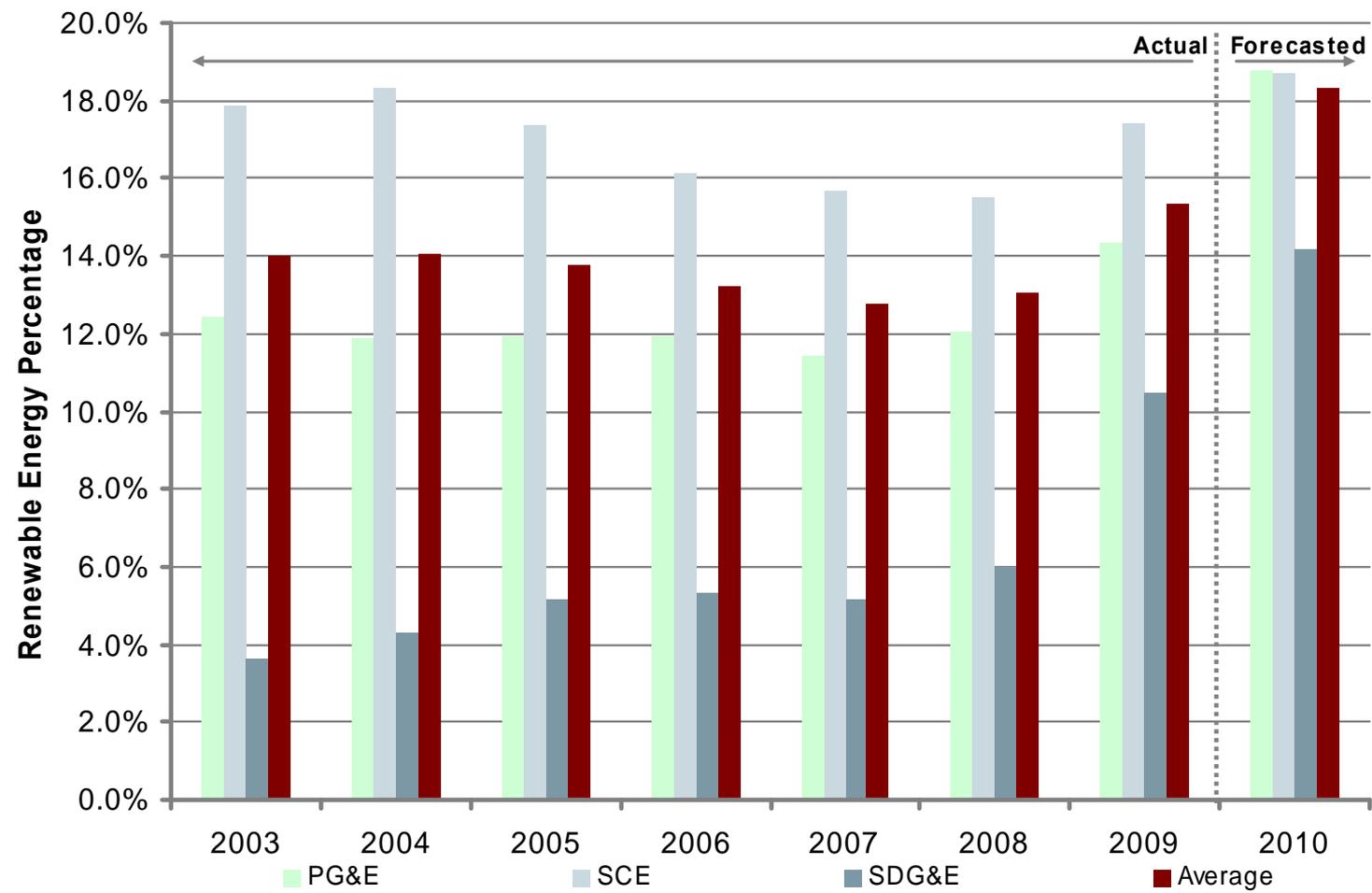
- 2009 saw the greatest increase to date in RPS-eligible generation
- 2010 should see an even greater increase – estimated to reach approximately 18% for the large IOUs
 - Exact percentages will be available after utilities file their 2010 compliance reports on March 1, 2011

		2003	2004	2005	2006	2007	2008	2009
TOTAL	Target (GWh)	18,647	20,215	21,824	23,458	25,178	26,934	28,734
	RPS-Eligible Procurement (GWh)	21,993	22,628	22,517	22,722	22,392	23,440	26,844
	RPS GWh as % of Bundled Sales	14.0%	14.1%	13.8%	13.2%	12.7%	13.0%	15.4%
	Cumulative Deficit/Surplus (GWh)	3,346	5,759	6,452	5,716	2,930	-564	-2,454



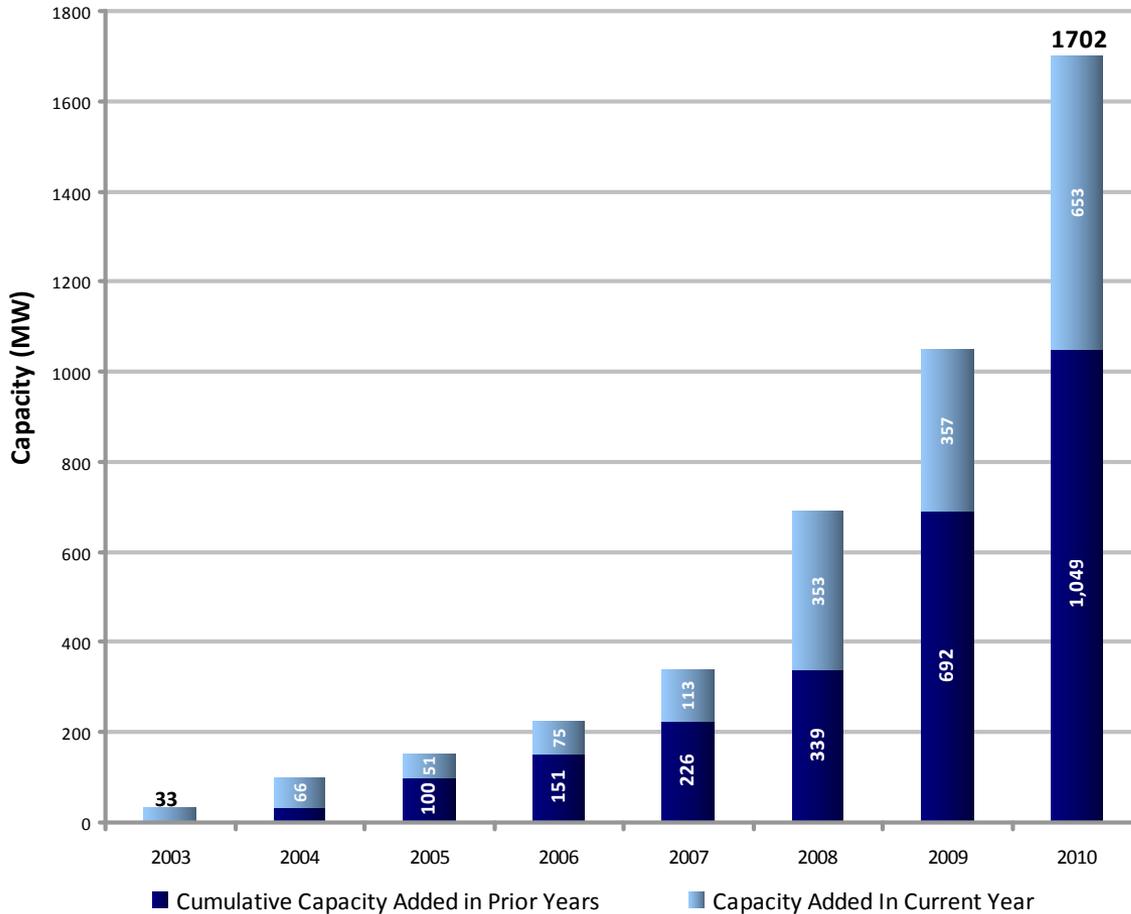


RPS percentages by utility





1,702 MW of new capacity online since 2003*



New capacity, by region

	Number of Projects	MW
In-State	35	1000
Out-of-State	10	702
Total	45	1702
Percentage In-State	78%	59%

* Additional out of state projects – over 1,000 MW – have come online after 2005 under short-term contracts, but CPUC staff generally does not credit the California RPS program with incenting the development of these projects.

Source: California Public Utilities Commission, 4th Quarter 2010





Summary of progress towards RPS goals

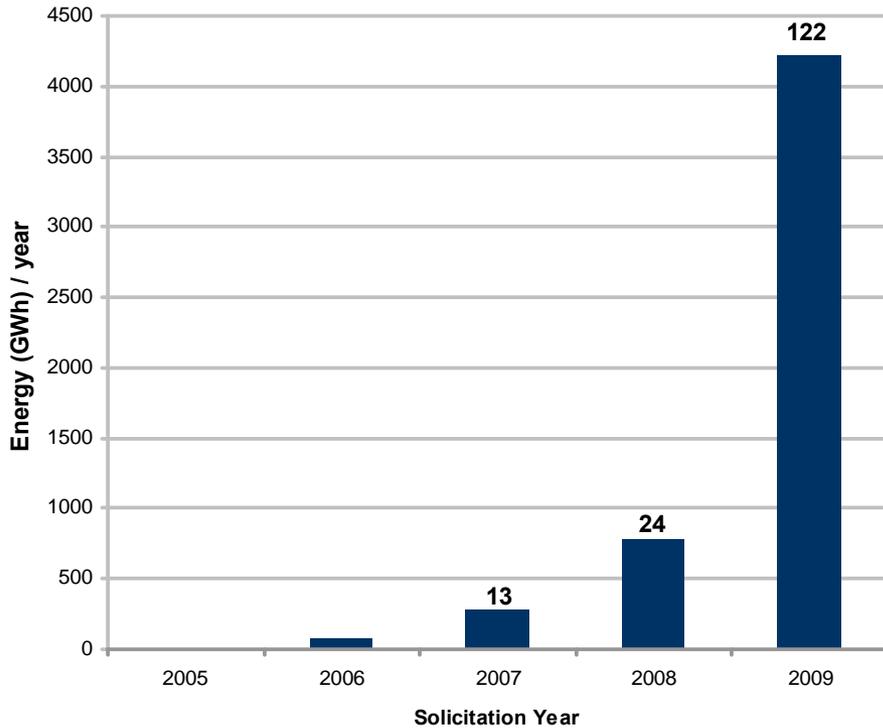
- Since 2003, CPUC has approved **181 contracts** for about **14,000 MW** of new and existing eligible renewable energy capacity
 - >4,000 MW of contracts under review, nearly all for new capacity
- IOUs are forecasted to achieve 20% RPS in the 2011 – 2012 timeframe
- Recent RPS solicitations have been robust:
 - Increased participation from larger and more experienced developers
 - Dramatic increase in number of solar photovoltaic bids
 - 2009 RPS solicitation resulted in **100,000 GWh** of bids (very large)
 - 2009 bids alone would meet half of IOUs' 33% target
- CPUC and utilities increasingly focused on tapping the wholesale distributed generation market for renewables (under 20 MW in size) to allow for faster delivery schedules and interconnection at the distribution level, without need for transmission upgrades.



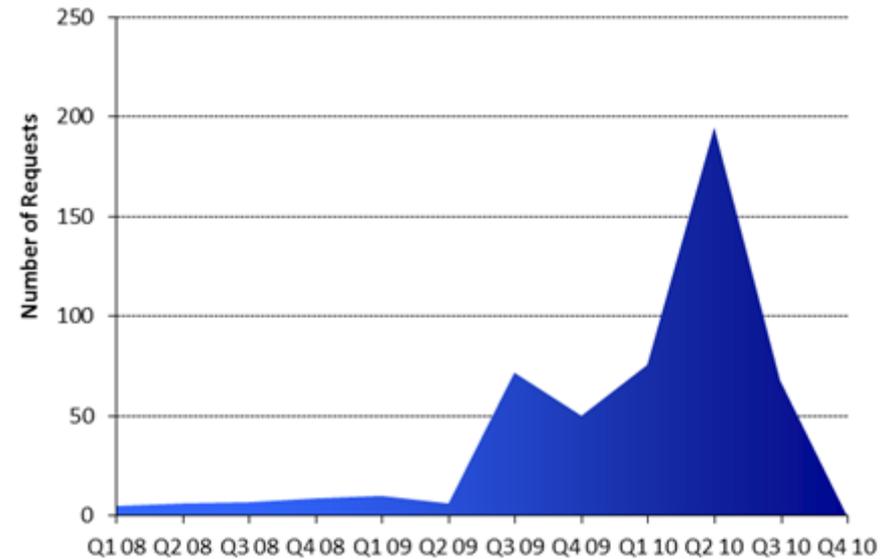


Recent increase in offers to sell “Wholesale Distributed Generation”

Bids to IOUs from Solar PV Projects \leq 20 MW, 2005-2009



New Requests to Interconnect to IOU Distribution Systems, 2008-2010

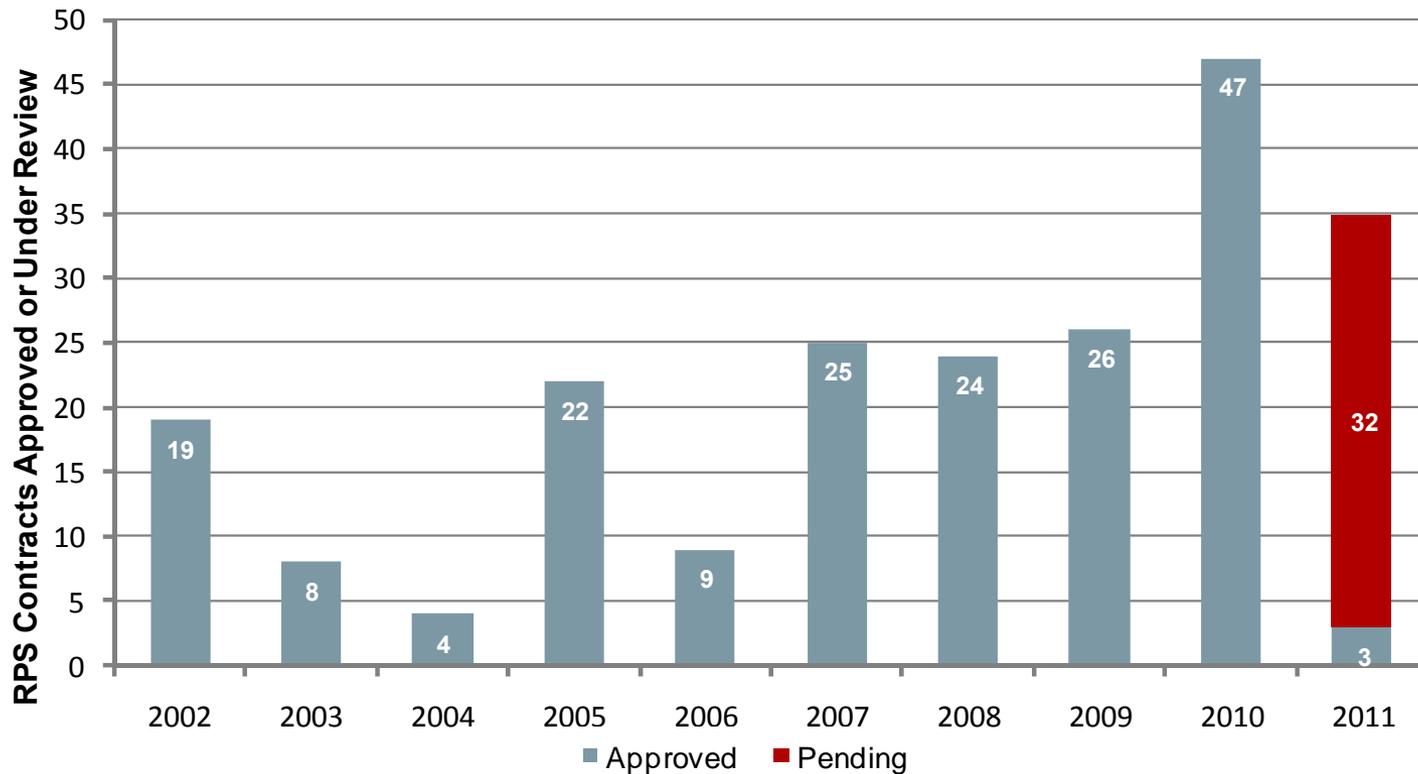


Source: California Public Utilities Commission, 1st Quarter 2010





CPUC approved and pending contracts

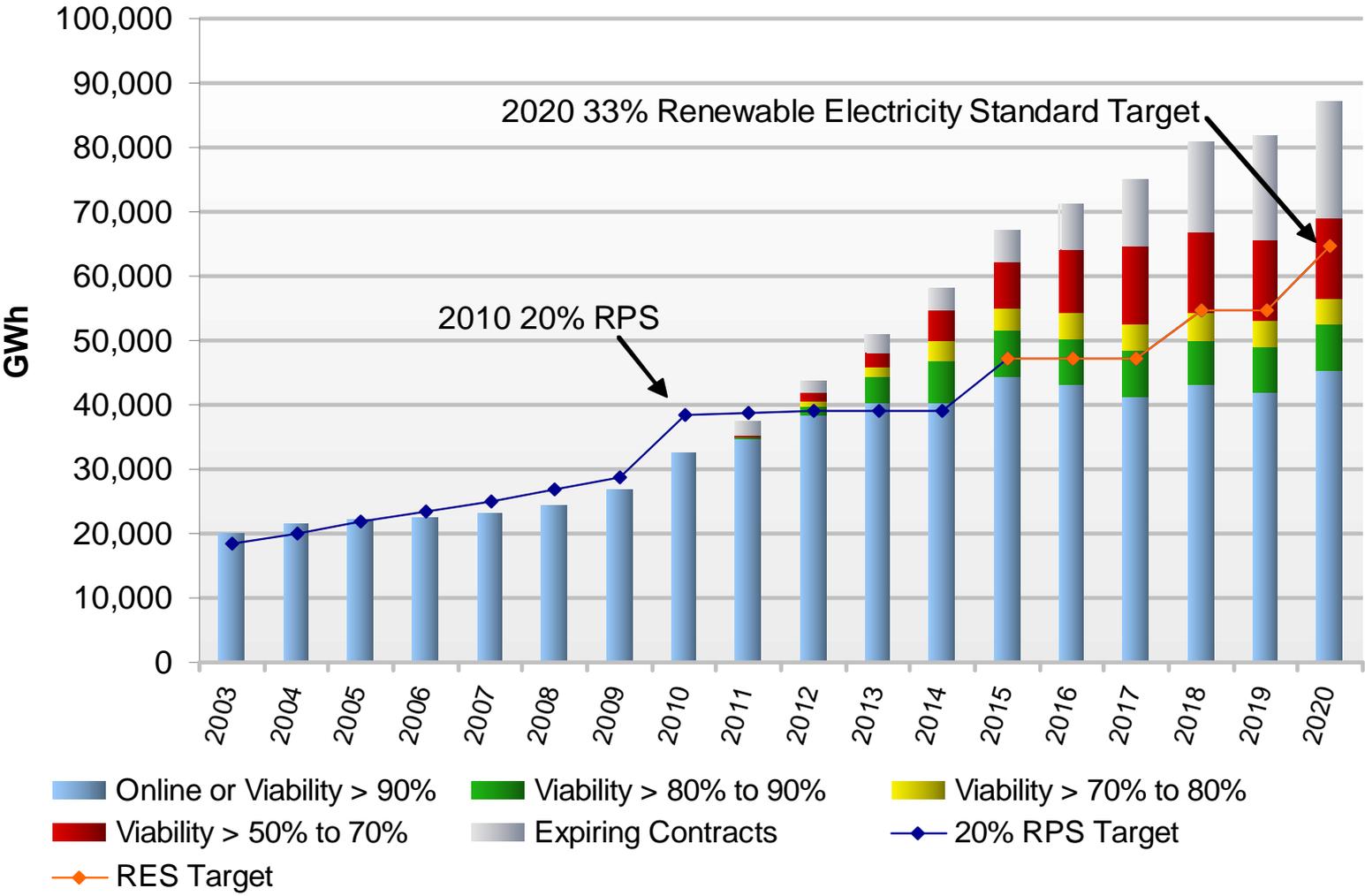


Source: California Public Utilities Commission, 1st Quarter 2011





Generation under negotiation could meet 33% goal



Source: California Public Utilities Commission, 4th Quarter 2010
 Data: Retail sales based on LTPP "base case"

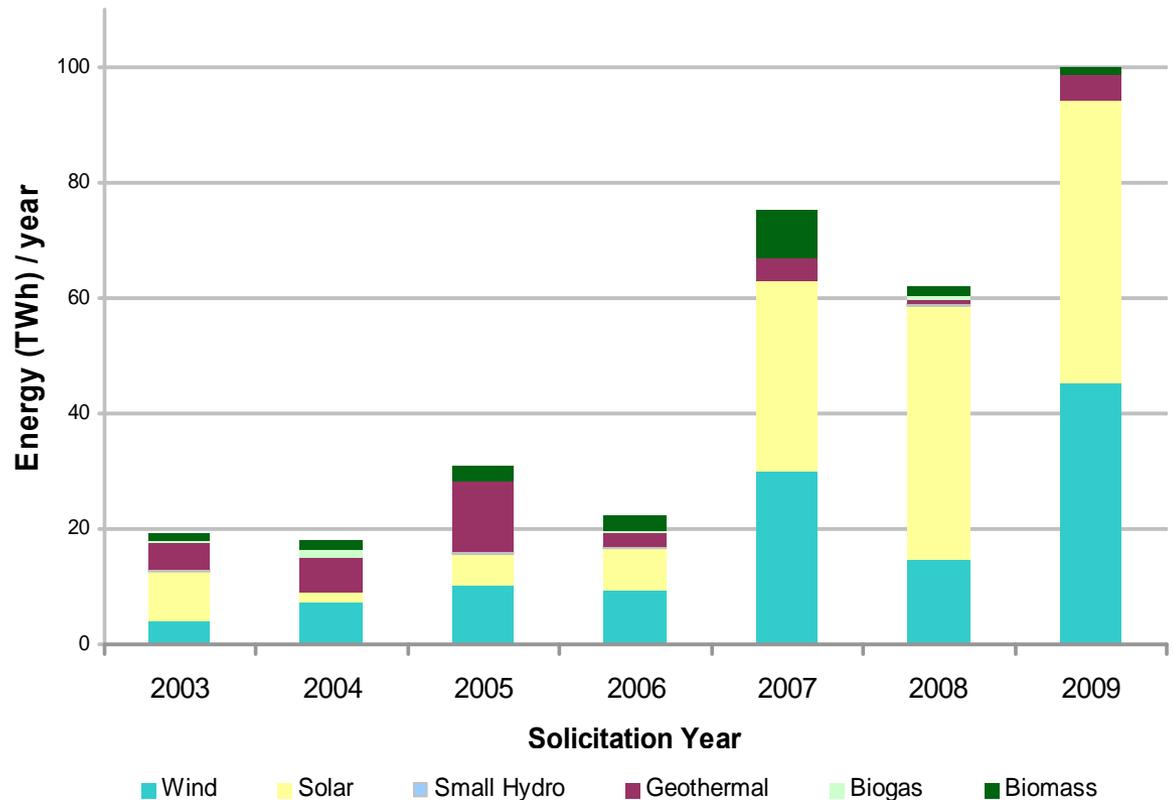




RPS bids shifting towards solar

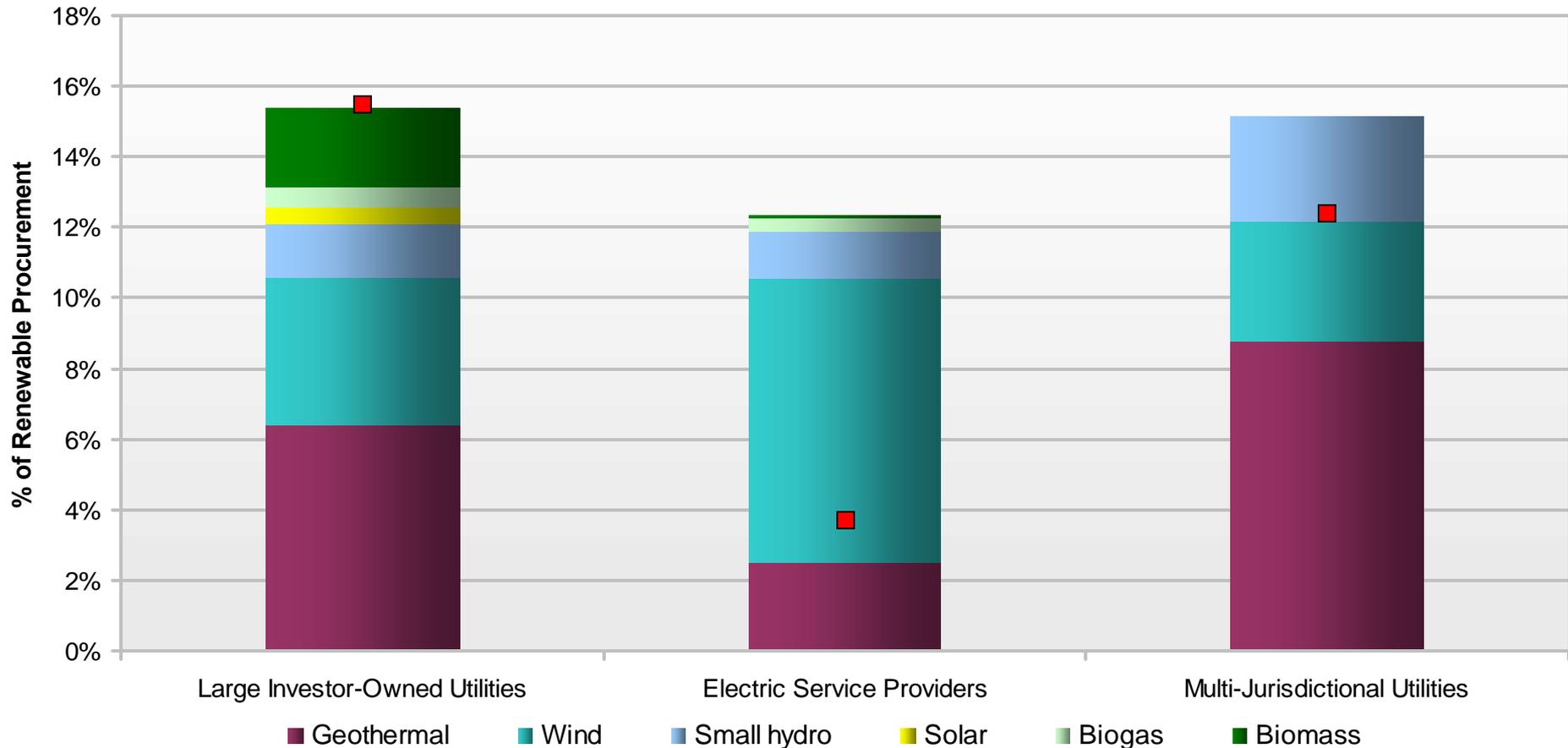
- Bids to IOUs are increasingly weighted towards solar
- Solar thermal leading until recently, as PV costs have dropped
- Some solar thermal project developers shifting technology to solar PV

Bids in IOU Solicitations 2003-2009, by Fuel Type





2009 RPS procurement by fuel type



Note - The small utilities did not procure any RPS-eligible generation in 2009.





RPS cost containment

- Statute requires a limitation on the total costs of renewable energy above market prices for conventional energy
 - CPUC calculates the “market price referent” (MPR) for each RPS solicitation
- Each IOU has statutorily prescribed “above-MPR funds” (AMFs)
 - ~\$770 million total for 3 large IOUs and Bear Valley
 - IOUs exhausted their AMFs in 2009
- MPR is no longer used to evaluate whether a contract price is reasonable (SB 1036). Instead, CPUC compares RPS contracts to costs of relevant technologies and utilities’ other renewable opportunities.
- Robust renewables market competition allows increasing discretion to choose lowest-cost options.
- Cost containment should include all RPS costs and reflect utilities’ long-term resource planning assumptions including comparison to other options.





More information

CPUC RPS Website:

www.cpuc.ca.gov/renewables

Transmission Siting and Environmental Permitting:

<http://www.cpuc.ca.gov/PUC/energy/Environment/>

Long-Term Procurement Plan proceeding:

<http://www.cpuc.ca.gov/PUC/energy/Procurement/LTPP/>

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