Briefing on 2009 Summer Loads & Resources Operations Preparedness Assessment

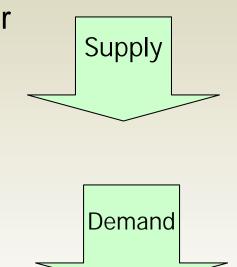
Californ

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#### In summer 2009, two key issues offset each other.

- Ongoing California drought, now in 3<sup>rd</sup> year
  - Reducing California hydro capacity & energy
  - Impact on supply adequacy Negative
- Reduced peak demand
  - Recession impacting load
  - Impact on supply adequacy Helpful





2009 water conditions improved since February, similar to 2008.

Summary of Water Conditions May 1, 2009 (percent of average)						
California - Statewide	Precip	Snow Water Content	Reservoir Storage	Runoff		
2009	80%	<b>60%</b>	80%	<b>60%</b>		
Previous Years						
May 1, 2008	85%	65%	85%	60%		
May 1, 2007	65%	25%	105%	55%		



A hydro capacity/energy derate scenario was developed for 2009.

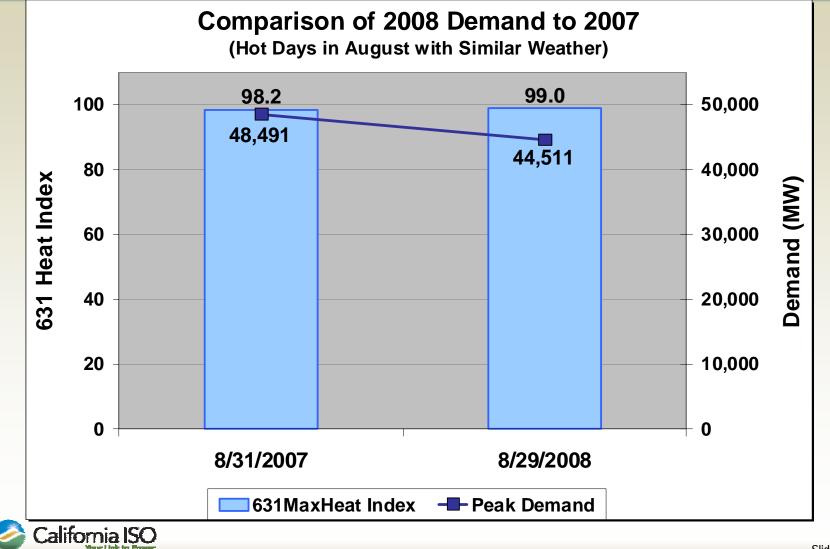
Hydro scenario based on:

- Derates for units dependent on large reservoir storage
- RA capacity (1-in-5) for hydro units fed directly from show melt
- 2009 Hydro capacity derate scenario

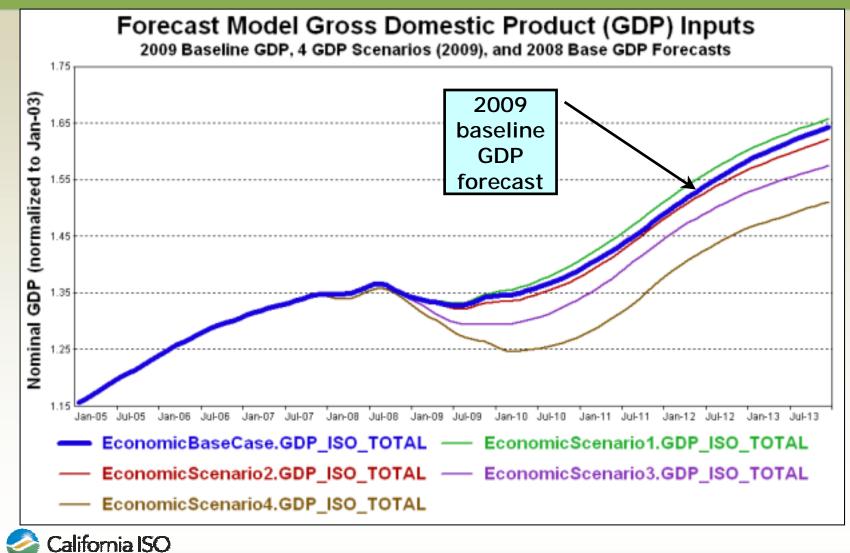
NP26 hydro capacity derate792 MW (79%)SP26 hydro capacity derate208 MW (21%)ISO hydro capacity derate1,000 MW



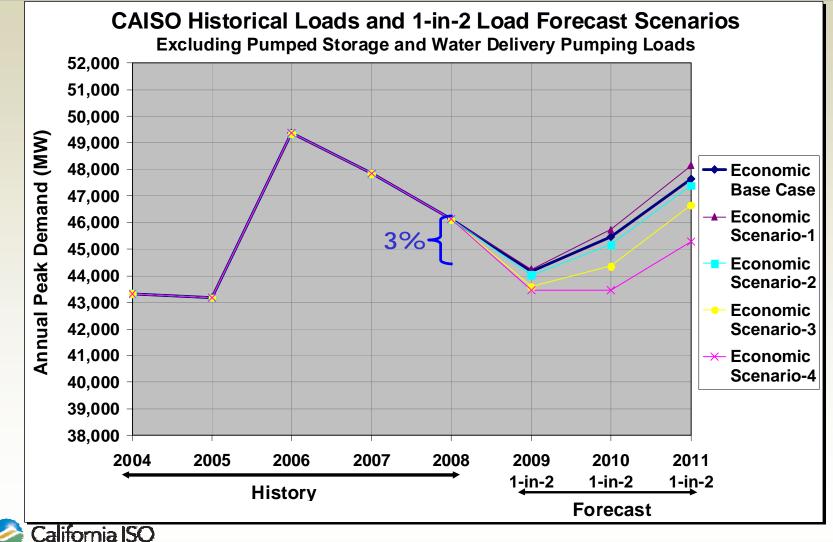
#### Peak Demands were lower in 2008.



### For 2009 we used a range of economic scenarios to predict peak demand.



### All GDP baseline forecast predicts 2009 demand 3% lower than 2008.



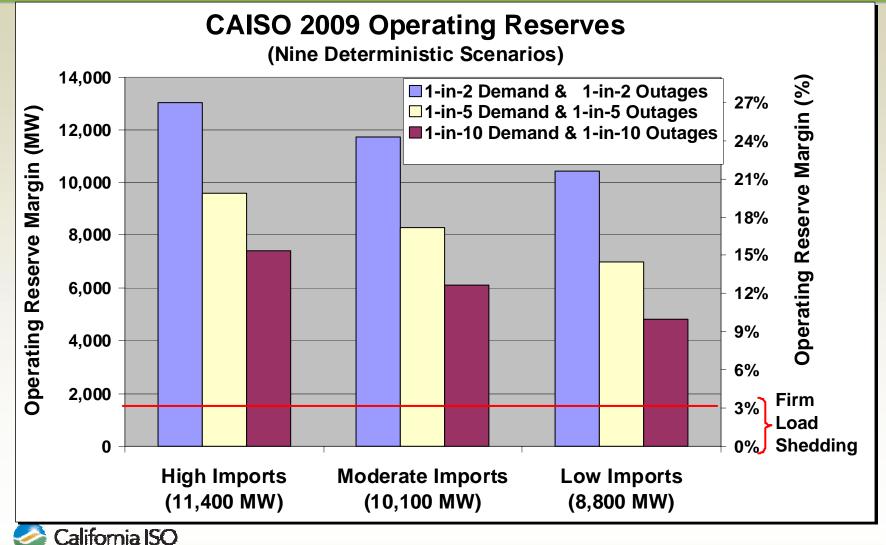
# 2009 Summer planning reserve margins are more than adequate.

### Summer 2009 Outlook

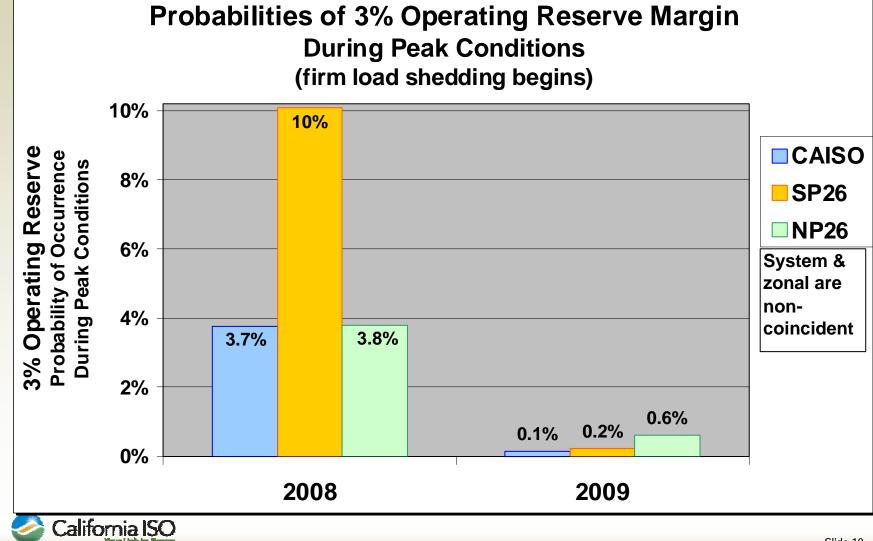
Resource Adequacy Planning Conventions	CAISO	SP26	NP26
Existing Generation	47,500	22,558	24,929
Retirements (Known)	22	0	22
High Probability CA Additions	1,476	378	1,098
Hydro Derates	-1,000	-208	-792
Net Interchange (Moderate)	10,100	9,200	2,050
Total Net Supply (MW)	58,098	31,929	27,306
Demand (1-in-2 Summer Temperature)	45,379	25,412	21,370
DR & Interruptible Programs	2,090	1,496	593
Planning Reserve	32.6%	31.5%	30.6%



# CAISO deterministic results indicate no firm load shedding in these scenarios.



# 2009 probabilistic results show lower probability of shedding firm load versus 2008.



#### Focus of preparation for 2009:

- Extended hotter than normal summer predicted (June-August)
- Continued need for high import levels seen during 2008
- Increased risk from fires near transmission lines

Situation manageable

