



CALIFORNIA ISO

ISO Outlook Summer 2005 and Beyond

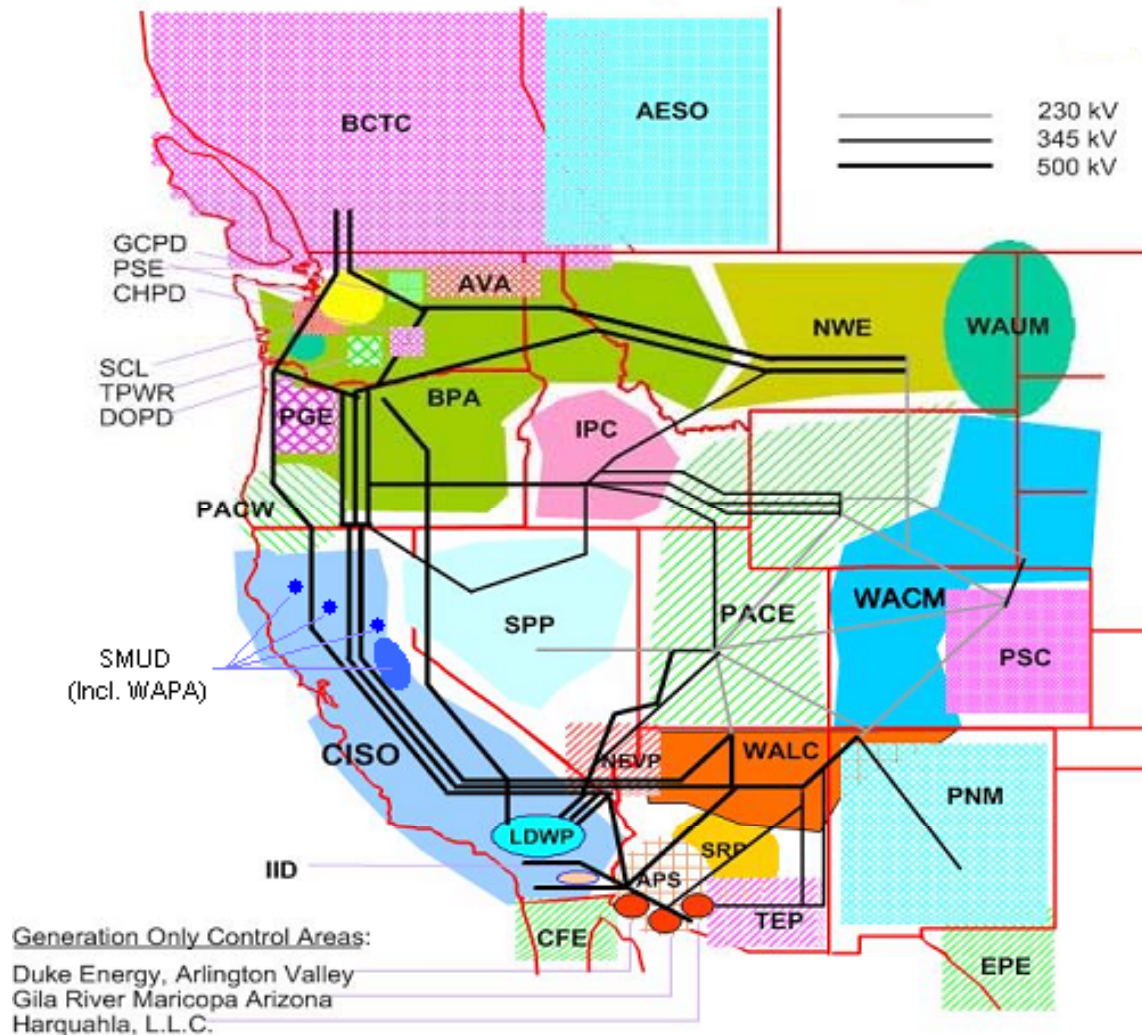
**Assembly
Utilities and Commerce Committee**

April 11, 2005

**Yakout Mansour
President and CEO, California ISO**



WECC Transmission Grid



California ISO

- 501c(3) nonprofit corp., created by state statute & regulated by FERC
- 5 member board appointed by the Governor and confirmed by Senate
- One of 3 Western Electricity Coordinating Council (WECC) Reliability Coordinators in the West

Functions:

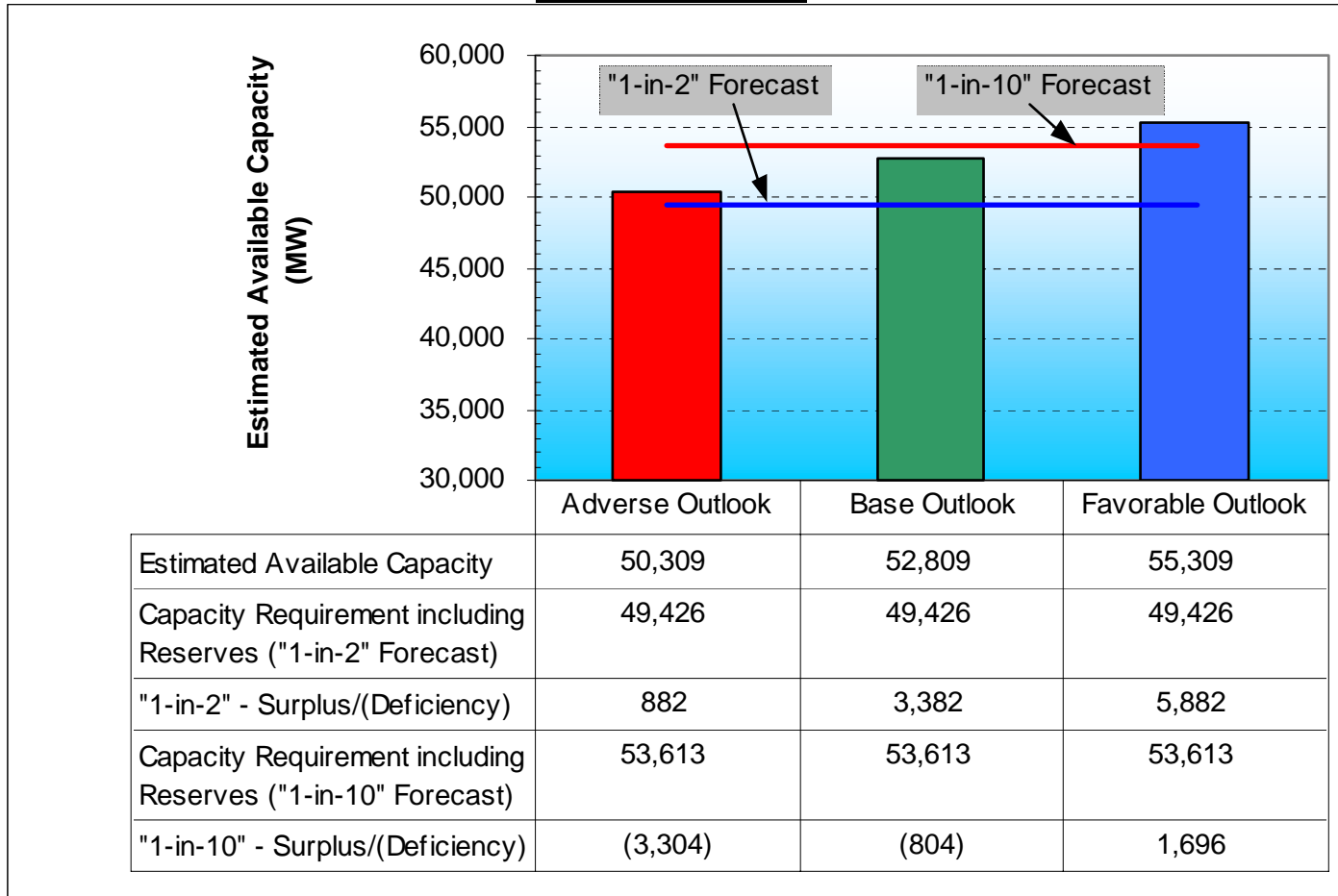
- Operate the High Voltage Grid for 75% of California in a safe and reliable manner
- Created to provide open & nondiscriminatory access to transmission grid
- Maintain grid reliability by matching supply & demand in real time & meet power reserve requirements mandated by the Western Electricity Coordinating Council
- Recommend appropriate grid upgrades
- Schedule & coordinate power plant & transmission lines coming out of service for maintenance

Summer 2004 in Review

- 7 record setting days in 2004:
 - **July 19** **44,042 MW**
 - **July 20** **44,330 MW**
 - **July 21** **44,360 MW**
 - **August 10** **44,497 MW**
 - **August 11** **44,872 MW**
 - **September 7** **45,165 MW**
 - **September 8** **45,597 MW**
- In spite of moderate temperatures, CAISO reached a new all-time system peak of 45,597 MW on September 8, 2004.
- Joint Energy Action Forum (JEAF) was established to assess 2005 load and resource picture, and expedite solutions. (JEAF includes: CPUC, CEC, CAISO, Governor's Office.)
- ISO's 2005 Summer Assessment (published on March 31, 2005) to prepare for upcoming operations and to meet WECC/NERC reporting requirements. Results consistent with CEC's findings.



ISO Control Area 2005 Summer Peak Capacity Outlook





ISO 2005 Summer Assessment

- Adequate Resources to meet demand for expected “1-in-2” conditions; however, Southern California margins are thin.
- Challenges for Southern California and/or System, for “1-in-10” load condition.

	ISO Control Area	Northern CA (NP26)	Southern CA (SP26)
1-in-2 Load:	46,668	21,497	27,080
Surplus/(Deficiency)	+ 3,383	+ 3,643	+ 409
1-in-10 Load:	50,592	23,091	29,080
Surplus/(Deficiency)	(- 804)	+ 1,943	(- 1,725)

CAISO Summer 2005 Preparedness Plan

1. Increased transfer capability across important pathways of power lines in Southern California; worked with transmission owners to ensure all critical transmission upgrades are constructed on schedule. Assisted in bringing Path 15's additional 1,500-megawatt power line on line on time.
2. Scheduled a "Hot Day Grid Simulation" to test where megawatts will come from and where they will flow.
3. Obtained informal agreements with neighboring Control Areas throughout the West to receive emergency supplies of electricity if needed and available.
4. Developed ISO Summer Workshop training series for ISO and industry dispatchers so they are familiar with summer operating procedures.



Summer 2005 Preparedness Plan cont'd.

5. Updated grid software tools to address transmission bottlenecks on the grid.
6. Designed new protocols to be more responsive to regional resource or transmission needs - meaning it will be easier to localize emergencies.
7. Participated in the regional demand and supply assessments of WECC and NERC to determine areas of excess or deficiencies in neighboring Control Areas.
8. Worked with the industry to identify and Facilitate for additional resources (including tapping surplus municipal power & imported resources).






Summer 2005 Preparedness Plan cont'd.

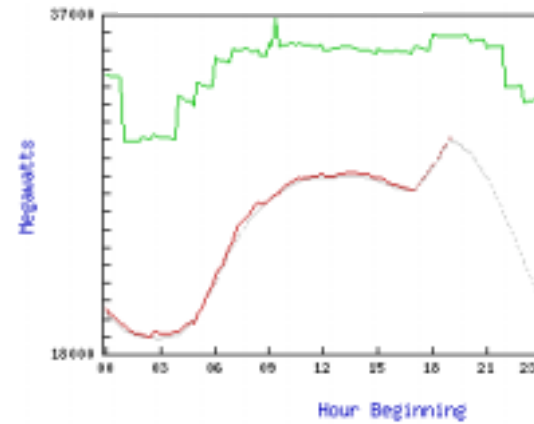
9. Performed engineering studies to identify all power lines in service and trouble spots where power lines might become overcrowded.
10. Launched Save-A-Watt Voluntary Load Reduction Program, with a dozen industry associations ready to call on their members such as grocery stores and restaurants to lower their electricity usage.
11. Developed trigger for residential conservation through Flex Your Power NOW! media bulletins that use TV & radio ads as well as newscasts to urge conservation during critical peak periods.
12. Enhancement of public awareness through the development of website tools such as the conserve-o-meter.



System Conditions

Current System Demand: (Actual Demand at this point in time)		27133
Today's Peak Demand: (Highest point thus far today)		28132
Today's Forecast Peak Demand: (Highest point expected today. Does not appear post-peak.)		30052
Tomorrow's Forecast Peak Demand: (Not included on graph)		29582

Today's Outlook



Conserve-O-Meter



Conserving energy is always a good idea. As the Alerts, Warnings & Emergency (AWE) status increases (see at right), the need for conservation also increases.

RRC/OE&M

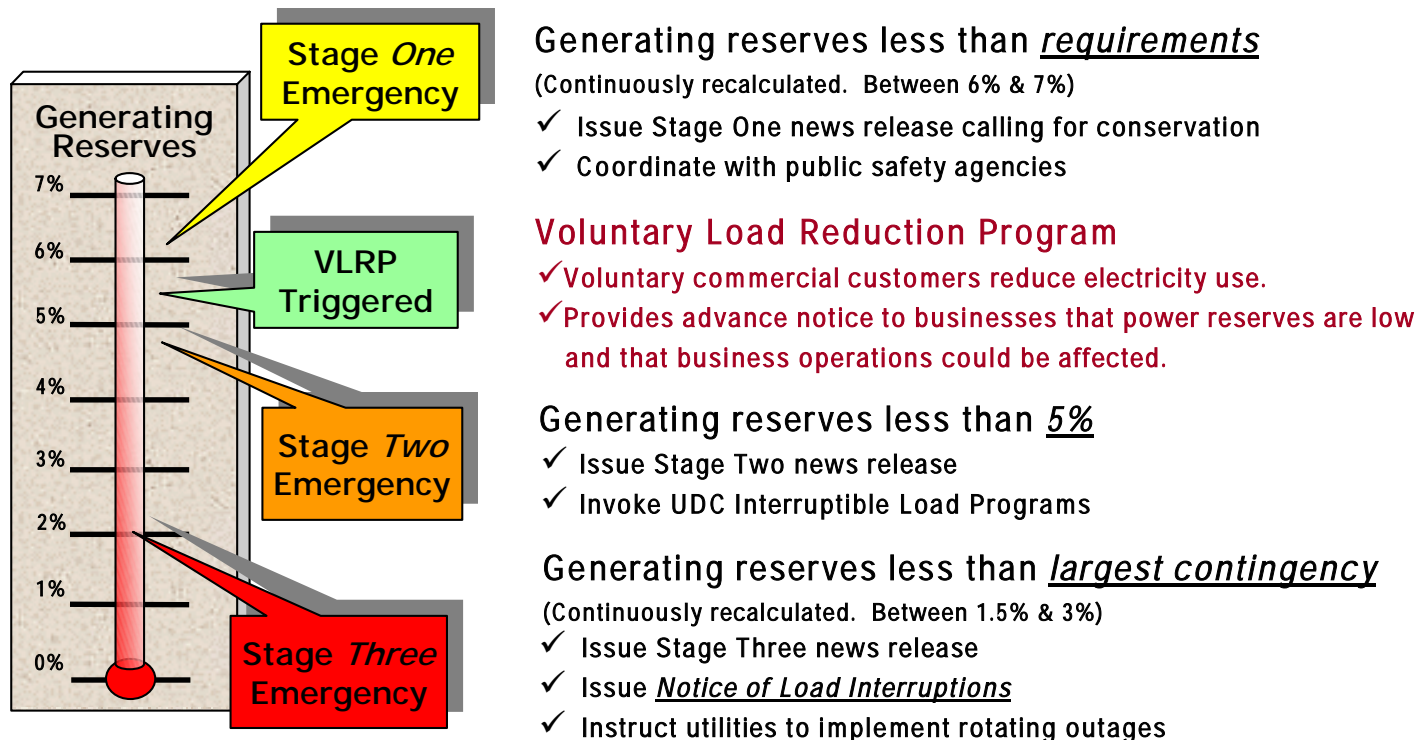
Alerts, Warnings, and Emergency Status

Alerts, Warnings & Emergencies (AWE)	Northern CA	Southern CA
Stage 3	Red	Red
Stage 2	Orange	Orange
Stage 1	Orange	Orange
Warning	Orange	Orange
Alert	Yellow	Yellow
Restricted Maintenance Operations	Yellow	Yellow
Normal	Green	Green

Today's Status is indicated by a grey box in the Northern CA column, corresponding to the 'Restricted Maintenance Operations' level.

Electrical Emergency Communications and Voluntary Load Reduction Program

Stages of Electrical Emergencies*



***Many emergencies are due to operating reserve levels, however, some emergencies are declared as a result of transmission line losses or limitations.**

Conclusion

- Adequate resources for normal (“1-in-2”) Summer 2005 demand conditions; possible challenges for Southern California and/or System, for more adverse load or resource conditions.
- ISO hosting a “Hot Day Grid Simulation”, to test where megawatts will come from and where they will flow.
- Bigger and better Flex Your Power campaign to promote energy conservation. Enhanced website with the development of real-time energy tracking tools.
- Maintain continuous coordination and communication with CPUC, CEC, Governor’s Office, Legislator, WECC, FERC, Investor Owned Utilities and Market Participants
- Time to shift focus to 2006 and beyond.