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DACAG Summer Reliability Update

Liz Gill, Reliability Analysis Branch Manager

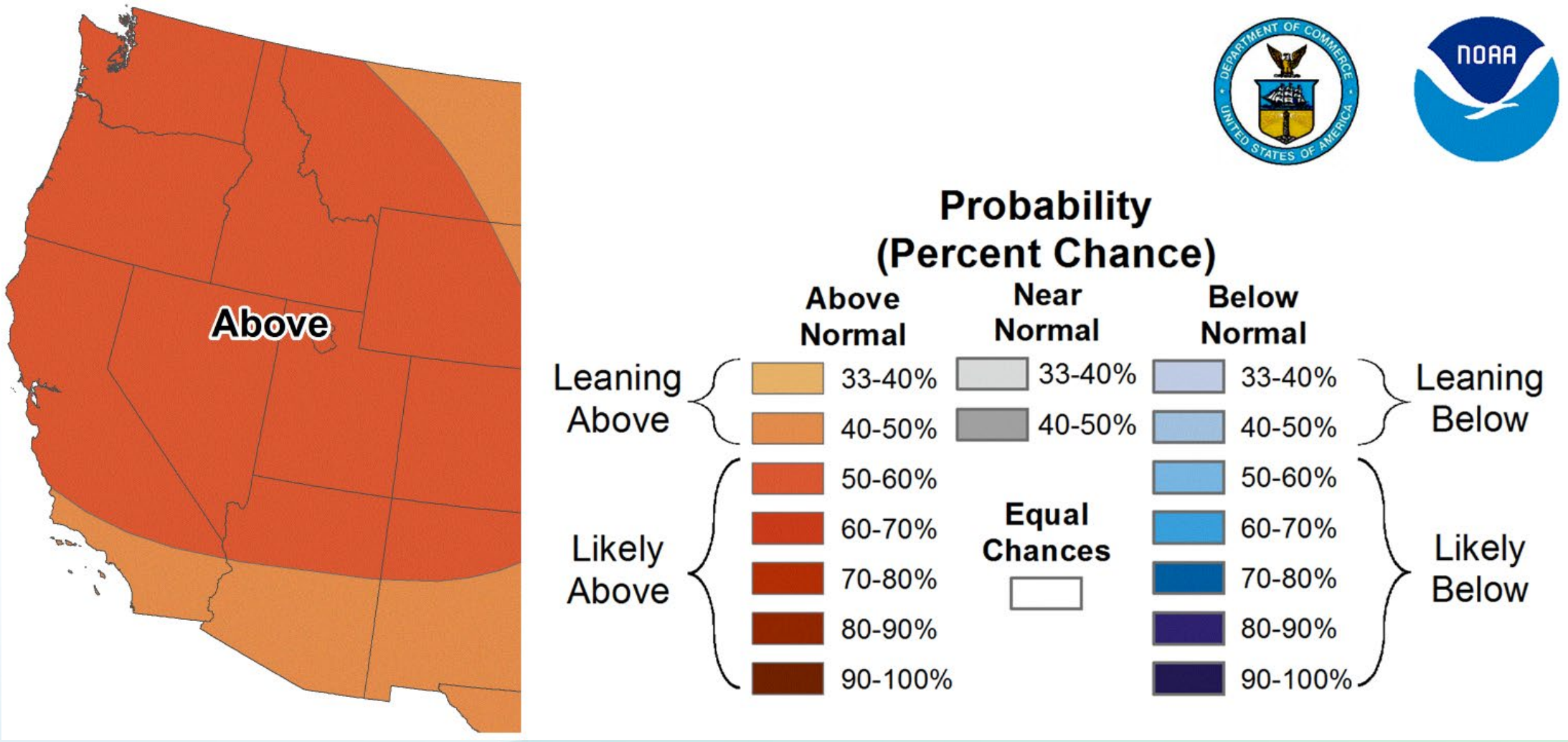
Date: 05/16/2025

Summer Conditions

Critical Variables

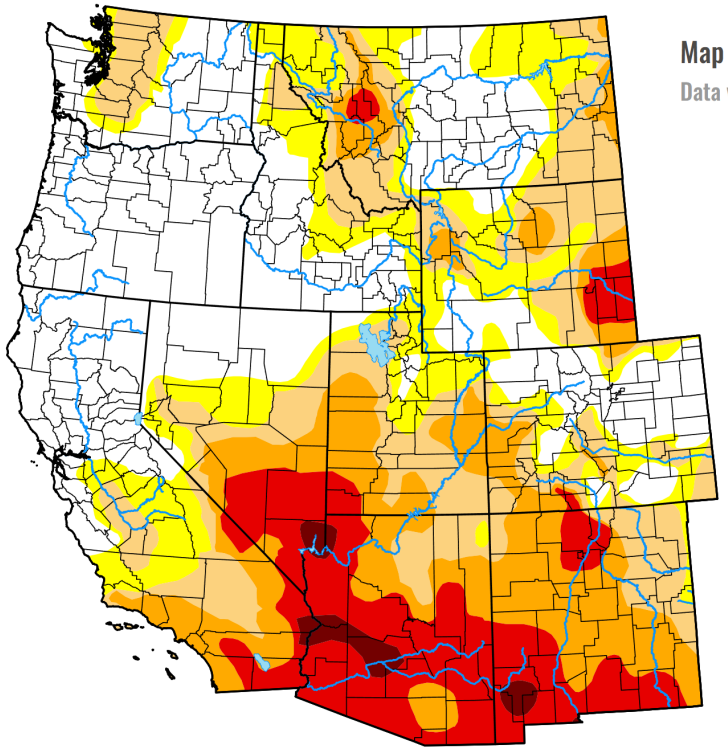
- Temperature Outlook
- Wildfire Outlook
- Hydro Conditions
- Expected New Resources
- Western Interconnection Outlook

July-Sept Seasonal Temperature Outlook



Source: CPC Seasonal Temperature Outlook for July-August-September 2025, valid March 20, 2025

Drought Outlook



Map released: Thurs. April 10, 2025

Data valid: April 8, 2025 at 8 a.m. EDT

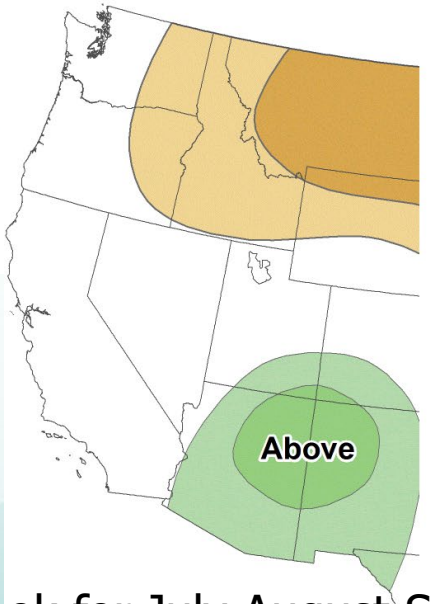
Intensity

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

Authors

United States and Puerto Rico Author(s):

David Simeral, Western Regional Climate Center

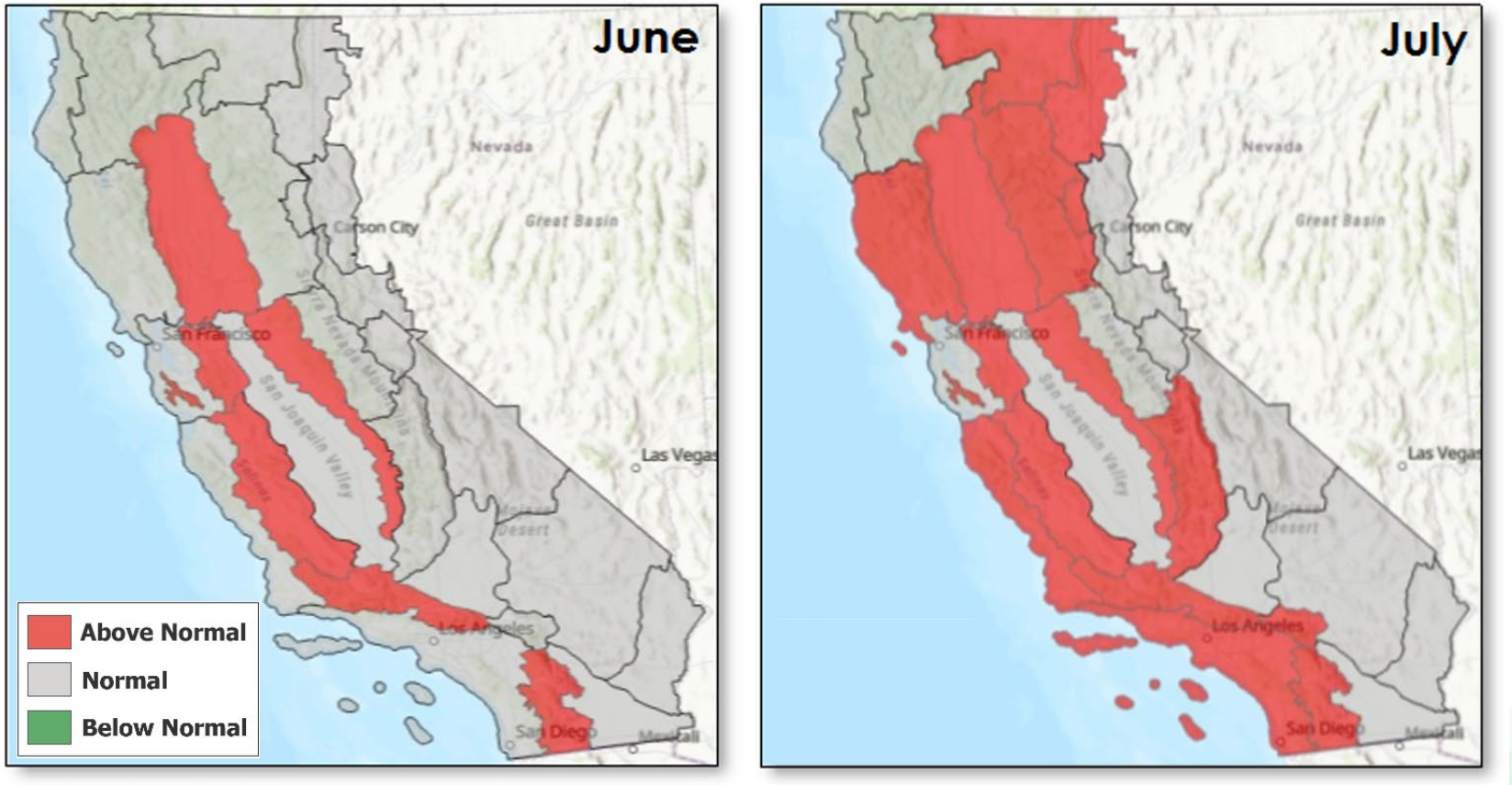


Probability (Percent Chance)

	Above Normal	Near Normal	Below Normal	
Leaning Above / Leaning Below	33-40%	33-40%	33-40%	Leaning Below
	40-50%	40-50%	40-50%	
Likely Above / Likely Below	50-60%	Equal Chances	50-60%	Likely Below
	60-70%		60-70%	
	70-80%		70-80%	
	80-90%		80-90%	
	90-100%		90-100%	

Source: CPC Seasonal Precipitation Outlook for July-August-September 2025, valid March 20, 2025

June-July Fire Risk



Source: WFTIIC Four Month Outlook for June and July 2025 valid April 1, 2025

Cumulative Anticipated New Resources Before July 2025

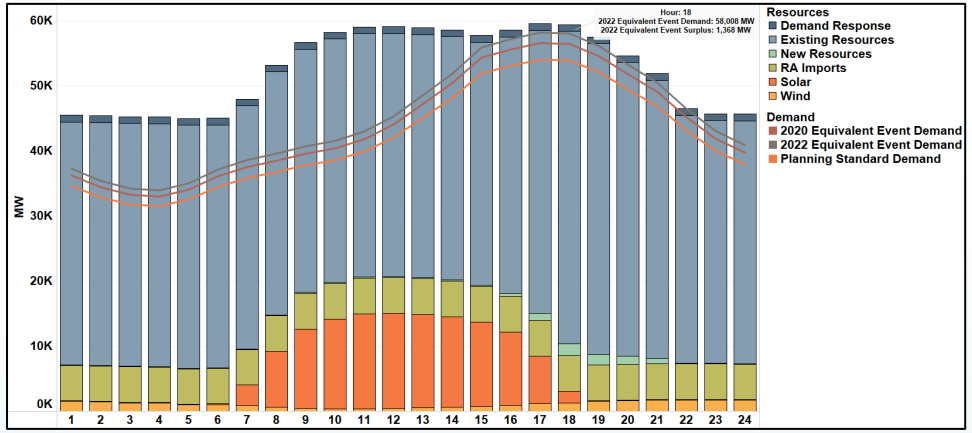
Resource Type	Jan	Feb	Mar	Apr	May	Jun
Battery	1	3	844	1,429	1,662	1,722
Geothermal	0	0	0	0	0	0
Hydro	0	6	6	6	6	6
Natural Gas	0	0	64	64	64	131
Other	0	0	0	0	3	3
Solar	17	23	77	77	227	227
Wind	0	0	27	27	27	27
Total Expected	**18**	**32**	**1,018**	**1,604**	**1,989**	**2,116**

Source: California ISO New Resource Interconnection

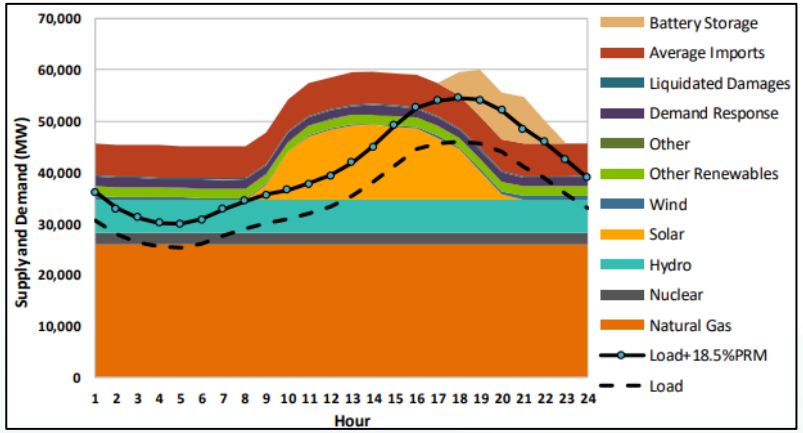
Summer Stack Analysis

What is a stack analysis?

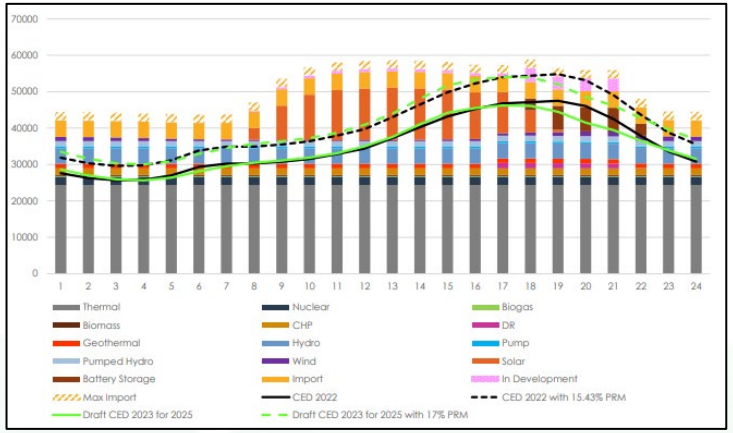
- Visual and analytical tool that compares available generation capacity with forecasted electrical demand
- Identifies potential reliability gaps when demand exceeds supply
- Critical for reliability planning, resource adequacy, and contingency resource planning



Source: CEC



Source: California ISO



Source: CPUC

System Planning Conditions

Condition Relative to 1-in-2 Forecast	Operating Reserves	Outages	Demand Variability	Coincidental Fire Risk	Notes
Average Conditions: Current RA Planning Standard – 17%	6%	5%	6%	4,000 MW	17% beginning 2024
2020 Equivalent Event: Additional capacity needed to ride-through heat event like 2020	6%	7.5%	9%	4,000 MW	9% higher demand over median, and 2.5% higher levels of outages
2022 Equivalent Event: Additional capacity needed to ride-through heat event like 2022	6%	7.5%	12.5%	4,000 MW	12.5% higher demand over median, and 2.5% higher levels of outages

Source: CEC

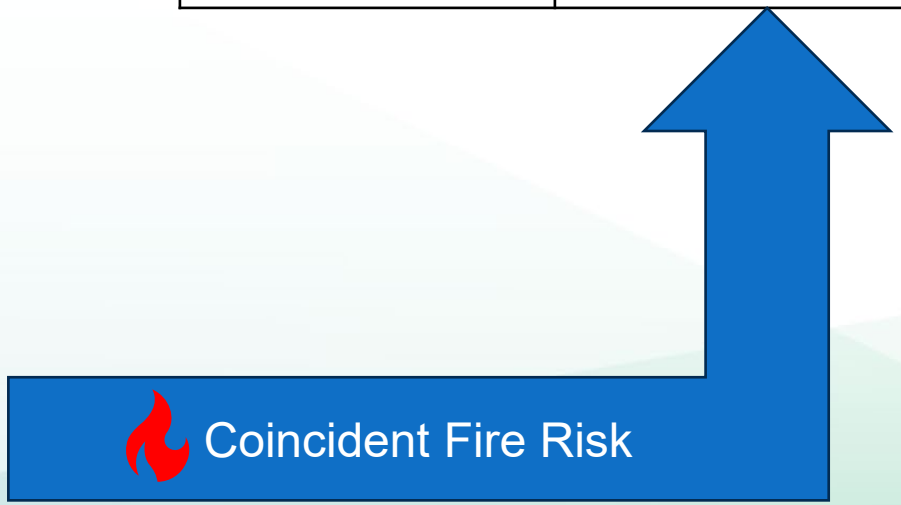
Resource Stack Results

Results

- No shortfalls expected under average conditions and extreme events, Tight conditions may occur if there is a coincident fire impacting transmission assets
- Cautiously optimistic summer outlook

	2025 1st & 2nd Quarterly Report
Supply	
Demand Response	1,033
Existing Resources	48,032
New Batteries Nameplate	1,722
Wind	1,305
Solar	1,765
RA Imports	5,500
Total (MW)	**59,357**
Demand (MW)	
Sept. Peak Demand	**46,152**
Surplus/Shortfalls (MW)	
Average Conditions	5,512
2020 Equivalent Event	2,980
2022 Equivalent Event	1,368

System conditions	Surplus/Shortfalls
Planning Standard	**1,512 MW**
2020 Equivalent Event	**-1,020 MW**
2022 Equivalent Event	**-2,632 MW**



Results are for CAISO for September 2025, hour 18. All new resources are projected to be online by 9/1/25.

Emergency Preparedness

2025 Contingencies (as of 4/21/2025)

		MW Available		
Type	**Contingency Resource**	**July**	**August**	**September**
Strategic Reliability Reserve	DWR Electricity Supply Strategic Reliability Reserve Program and State Power Augmentation Program	3079	3079	3079
	CEC Demand Side Grid Support[1]	530	540	545
	CEC Distributed Electricity Backup Assets[2]	0	0	0
CPUC*	Ratepayer Programs (Emergency Load Reduction Program, Power Saver Rewards etc.)[3]	106	104	103
	Imports Beyond Stack	25	25	25
	As Available Energy from Installed Resources	794	364	474
Non-Program	Balancing Authorities Emergency Transfers	300	300	300
	Thermal Resources Beyond Limits: Gen Limits Needing 202c	25	25	25
	Total	**4859**	**4437**	**4551**

[1] Estimates based on current enrollment and projected growth

[2] Nine projects were recommended for DEBA funding for a total of 297 MW. Includes 9.5 MW anticipated to be online in 2026 and ~287 MW online in 2027.

[3] Based on enrollment numbers and average per customer ex ante load reduction from filing year 2025 Load Impact Protocols

** Numbers are from 2024 IOU Excess Reports. Numbers will be updated for summer 2025 when IOUs submit their June 2025 Month-Ahead Showings to CPUC*

Thank You

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