

Docket No.: A.24-05-009

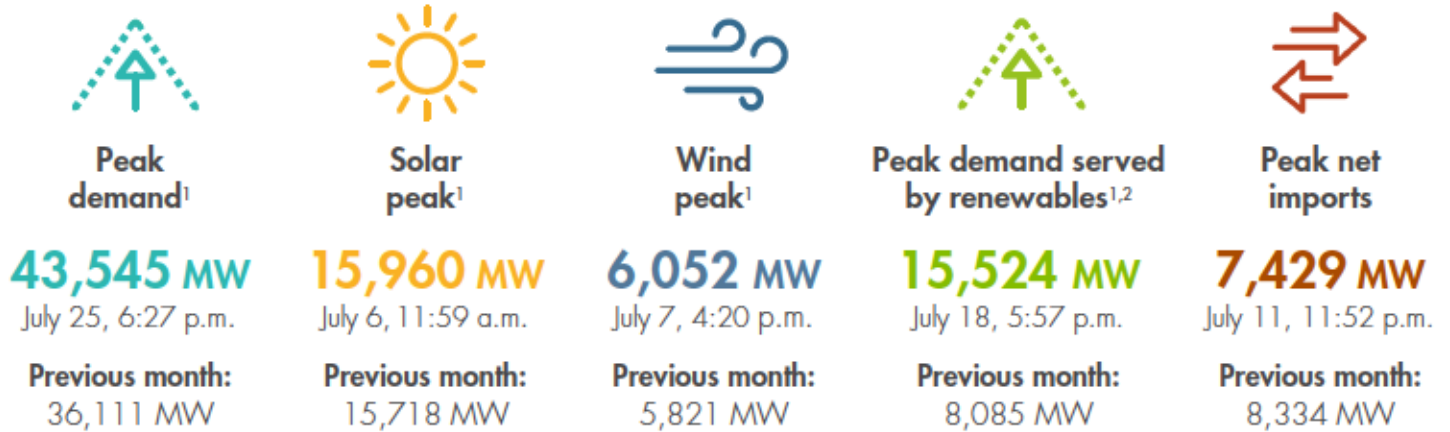
Exhibit No.: CalCCA-05


Date: November 12, 2024

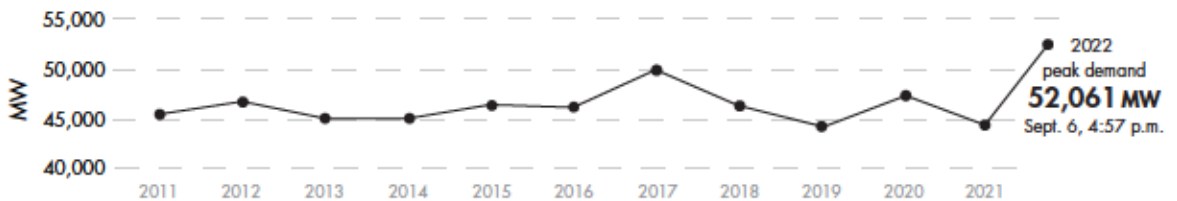
Sponsor/Witness: Dickman

**EXHIBIT CalCCA-05**  
**CAISO Key Statistics July 2023 and September 2024**


### Peaks for July 2023





  
**Annual peak demand**  
[Peak load history](#)





### Historical statistics and records (as of 8/07/2023)


 **Solar peak NEW!**  
**15,960 MW**  
 July 6, 2023 at 11:59 a.m.  
**Previous record:**  
 15,927 MW, July 5, 2023

 **Wind peak**  
**6,465 MW**  
 May 28, 2022 at 5:39 p.m.  
**Previous record:**  
 6,265 MW, March 4, 2022

 **Peak percentage of renewables compared to demand**  
**103.5%**  
 May 8, 2022 at 3:39 p.m.  
**Previous record:**  
 99.87%, April 30, 2022

 **Peak net imports**  
**11,894 MW**  
 Sept. 21, 2019 at 6:53 p.m.

 **Peak demand**  
**52,061 MW**  
 Sept. 6, 2022 at 4:57 p.m.  
**Second highest:**  
 50,270 MW, July 24, 2006

 **Steepest 3-hour average ramp**  
**20,326 MW**  
 Feb. 15, 2023 starting at 3:00 p.m.  
**Second highest:**  
 19,699 MW, Jan. 23, 2023

<sup>1</sup> Based on 1-minute averages, and includes dynamic transfers. Values are subject to revision as data is refined.

<sup>2</sup> Indicates the highest amount of renewables serving peak electricity demand on any given day.

KEY STATISTICS

Western Energy Imbalance Market (WEIM) benefits: Q2 2023 [Read report](#)

Benefits  
**\$379.91 million**  
 Previous quarter:  
 \$418.82 million

ISO avoided curtailments  
**148,938 MWh**  
 Previous quarter:  
 53,002 MWh

ISO GHG savings<sup>3</sup>  
**63,745 MTCO<sub>2</sub>**  
 Previous quarter:  
 22,685 MTCO<sub>2</sub>

WEIM benefits since 2014 [Visit WEIM website](#)

Benefits  
**\$4.2 billion**

ISO avoided curtailments  
**2,052,737 MWh**

ISO GHG savings<sup>3</sup>  
**878,491 MTCO<sub>2</sub>**

Active participants  
**22**

Number of states  
**11**

Resources



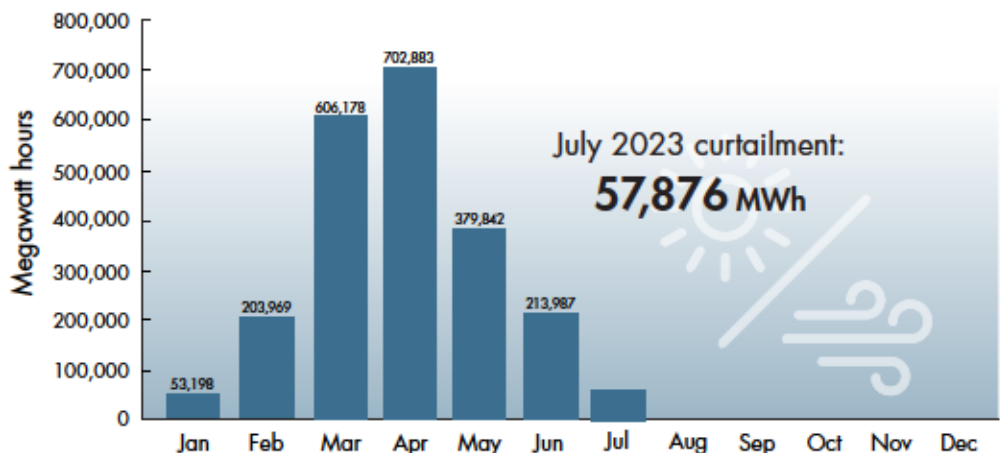
Resource adequacy net qualifying capacity (NQC) = **50,124 MW**  
 As of 7/31/23. Does not include current outages.



Installed battery capacity<sup>4</sup> = **5,487 MW**  
 As of 7/31/23; subject to change.

Wind and solar curtailment totals

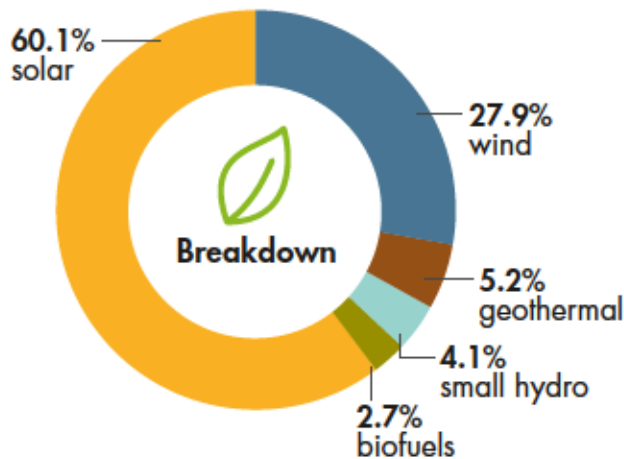
[For more on oversupply, visit here.](#)








<sup>3</sup> The GHG emission reduction is associated with the avoided curtailment only.

<sup>4</sup> Includes storage resources that have achieved commercial operation date, and does not include pumped storage.

### Installed renewable resources *(as of 7/31/2023)*



	Megawatts
 Solar	17,291
 Wind	8,033
 Geothermal	1,494
 Small hydro	1,165
 Biofuels	778
<b>TOTAL</b>	<b>28,761</b>

[See Today's Outlook](#)

NOTE — The ISO is using updated methodology to generate data. Only fully commercial units are now counted; units that are in test mode or partially online are excluded. For that data, view the Master Control Area Generating Capability List in the Master Generating File on OASIS under "Atlas Reference."






### Other facts


- 32 million consumers
- Serve ~80% of California demand
- Serve ~33% of WECC demand within the ISO balancing authority
- 1 MW serves about 750-1,000 homes (1 MWh = 1 million watts used for one hour)
- 239.1 million megawatt-hours of load served (2022)
- 243.1 million megawatts of total electricity delivered (2022)
- 36,689 average market transactions per day (2022)
- 21 participating transmission owners
- ~26,000 circuit miles of transmission
- 297 market participants
- RC West is the reliability coordinator for 42 entities across 10 western states and northern Mexico

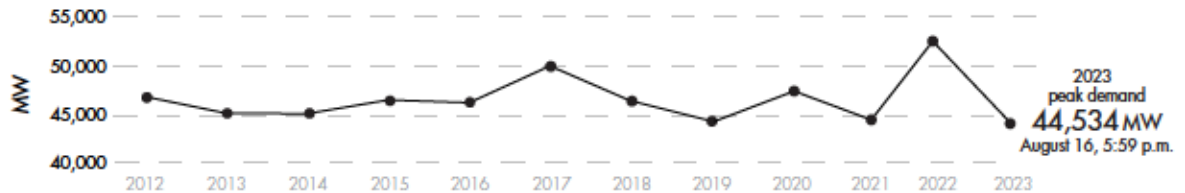
[See 2022 Annual Statistics](#)

[See previous Key Statistics](#)






### Peaks for September 2024

				
<b>Peak demand<sup>1</sup></b>	<b>Solar peak<sup>1</sup></b>	<b>Wind peak<sup>1</sup></b>	<b>Peak demand served by renewables<sup>1,2</sup></b>	<b>Peak net imports</b>
<b>48,323 MW</b>	<b>19,156 MW</b>	<b>5,877 MW</b>	<b>20,587 MW</b>	<b>8,115 MW</b>
Sept. 5, 4:59 p.m.	Sept. 12, 11:28 a.m.	Sept. 11, 2:26 p.m.	Sept. 17, 9:35 a.m.	Sept. 12, 12:01 a.m.
<b>Previous month:</b> 43,461 MW	<b>Previous month:</b> 19,650 MW	<b>Previous month:</b> 5,914 MW	<b>Previous month:</b> 20,612 MW	<b>Previous month:</b> 8,078 MW

  
**Annual peak demand**  
[Peak load history](#)



### Historical statistics and records *(as of 10/08/2024)*

 <b>Solar peak</b> <b>19,650 MW</b> Aug. 23, 2024 at 12:10 p.m. <b>Previous record:</b> 19,368 MW, June 20, 2024	 <b>Wind peak</b> <b>6,465 MW</b> May 28, 2022 at 5:39 p.m. <b>Previous record:</b> 6,265 MW, March 4, 2022	 <b>Peak net imports</b> <b>11,894 MW</b> Sept. 21, 2019 at 6:53 p.m.
 <b>Peak demand</b> <b>52,061 MW</b> Sept. 6, 2022 at 4:57 p.m. <b>Second highest:</b> 50,270 MW, July 24, 2006	 <b>Steepest 3-hour average ramp</b> <b>21,505 MWh</b> Feb. 10, 2024 starting at 3 p.m. <b>Second highest:</b> 21,153 MWh, Jan. 7, 2024	

<sup>1</sup> Based on 1-minute averages, and includes dynamic transfers. Values are subject to revision as data is refined.

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## KEY STATISTICS

### Western Energy Imbalance Market (WEIM) benefits: Q2 2024 [Read report](#)

Benefits  
**\$365.04 million**

Previous quarter:  
\$436.30 million

ISO avoided curtailments  
**55,921 MWh**

Previous quarter:  
60,285 MWh

ISO GHG savings<sup>3</sup>  
**25,802 MTCO<sub>2</sub>**

Previous quarter:  
21,349 MTCO<sub>2</sub>

### WEIM benefits since 2014 [Visit WEIM website](#)

Benefits  
**\$5.85 billion**

Active participants  
**22**

ISO avoided curtailments  
**2,278,936 MWh**

Future participants  
**2**

ISO GHG savings<sup>3</sup>  
**977,172 MTCO<sub>2</sub>**

Number of states  
**11**

## Resources



Resource adequacy net qualifying capacity (NQC) = **52,726 MW**

*As of 10/08/24. Does not include current outages.*

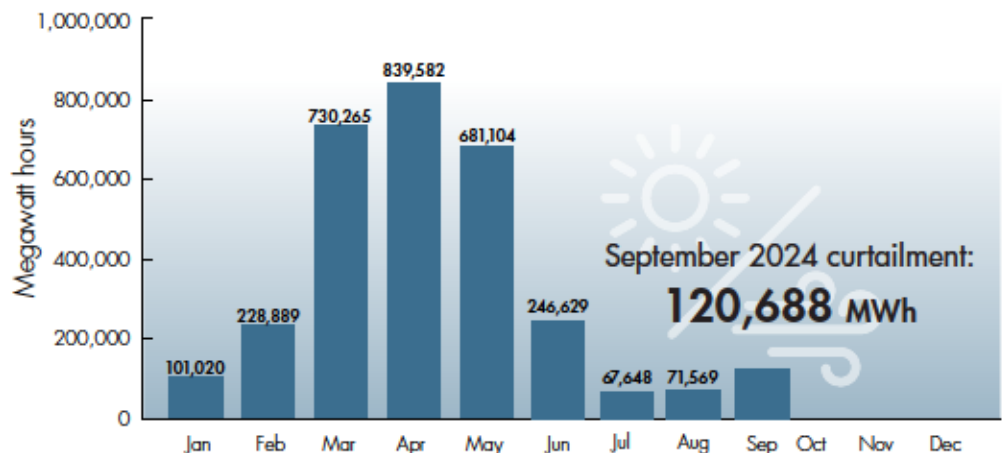


Installed battery capacity<sup>4</sup>  
**10,219 MW**

*As of 10/01/24; subject to change.*

## Wind and solar curtailment totals

[Learn about curtailment and managing the evolving grid.](#)

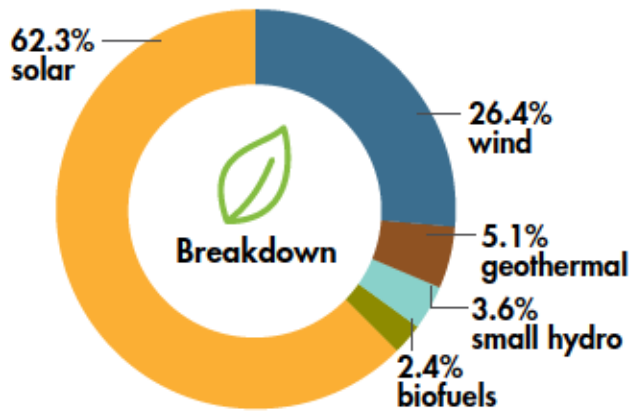







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### Installed renewable resources *(as of 10/08/2024)*



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 Biofuels	778
<b>TOTAL</b>	<b>31,553</b>

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NOTE — The ISO is using updated methodology to generate data. Only fully commercial units are now counted; units that are in test mode or partially online are excluded. For that data, view the Master Control Area Generating Capability List in the Master Generating File on OASIS under "Atlas Reference."



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- 237.5 million megawatt-hours of load served (2023)
- 245.8 million megawatts of total electricity delivered (2023)
- 37,751MW average market transactions per day (2023)
- 23 participating transmission owners
- ~26,000 circuit miles of transmission
- 329 market participants
- RC West is the reliability coordinator for 42 entities across 10 western states and northern Mexico

[See the 2023 Annual Statistics](#)

[See previous Key Statistics](#)