Data Center Data Collection and Forecasting

Demand Analysis Working Group
August 12, 2026

2026 IEPR Forecast

Meetings and Workshops

Date	Meeting
Aug 12; 10-12pm	DAWG: Known Loads
Aug 12; 1-3pm	DAWG: Data Centers
Aug 14; 10-12pm	DAWG: Inputs & Assumptions
Aug 20; 1-5pm	IEPR Workshop: Inputs and Assumptions
Aug 31; 9-12:30pm	IEPR Workshop: Load Modifier Inputs and Assumptions
Nov 12	IEPR Workshop: Load Modifier Draft Forecast
Dec 14	IEPR Workshop: Overall Draft Forecast

DAWG Meetings

IEPR Workshops

Agenda

- IEPR Data Center Forecast Methodology
  - Jeremy Smith, CEC
- Roundtable Discussion on Data Center Data Collection and Forecasting
  - Jenny Conde, Pacific Gas & Electric
  - Oscar Marroquin, Southern California Edison
  - Darell Holmes, Valley Electric Association
  - Lena Perkins, City of Palo Alto
  - Eric Shum, Silicon Valley Power
  - Maren Wenzel, Silicon Valley Clean Energy
  - Prachi Avasthy, San Jose Clean Energy
  - Margie Otto, Vernon Public Utilities

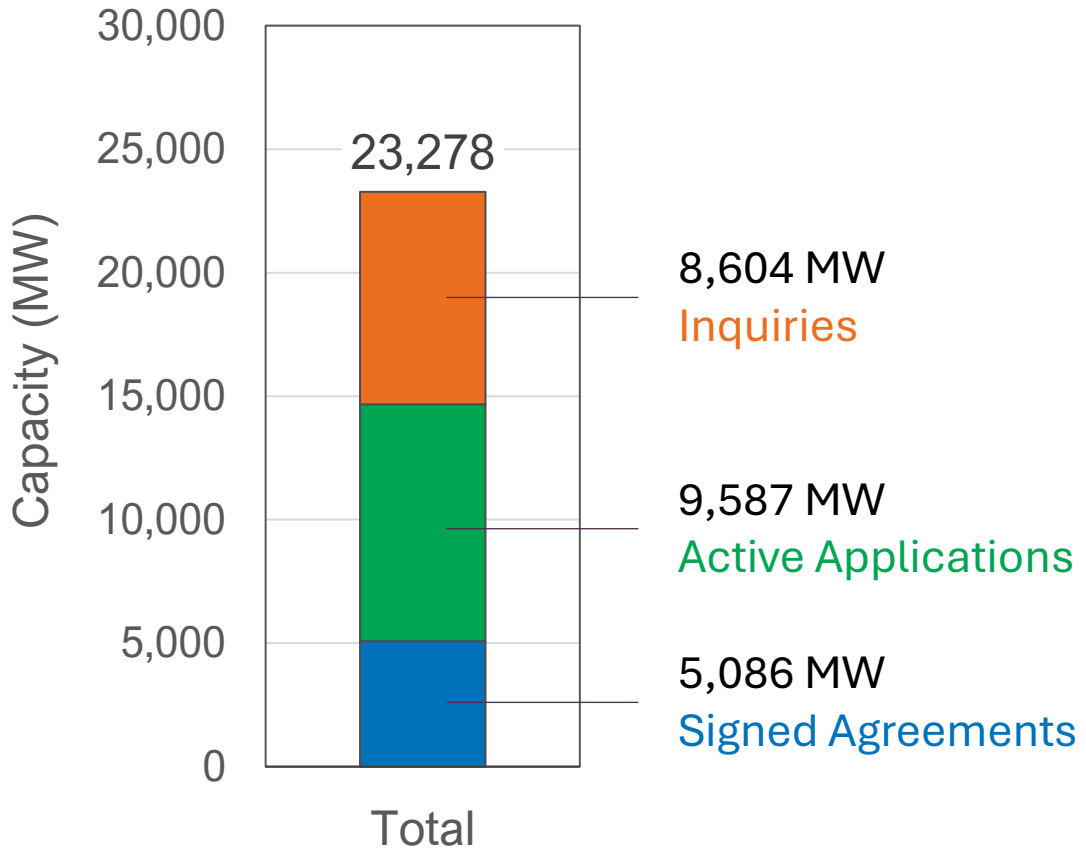
IEPR Data Center Forecast Methodology

California Data Center Landscape

- In December 2025, about:
  - 300 data centers
  - 1 GW demand (~2% of CAISO system peak)

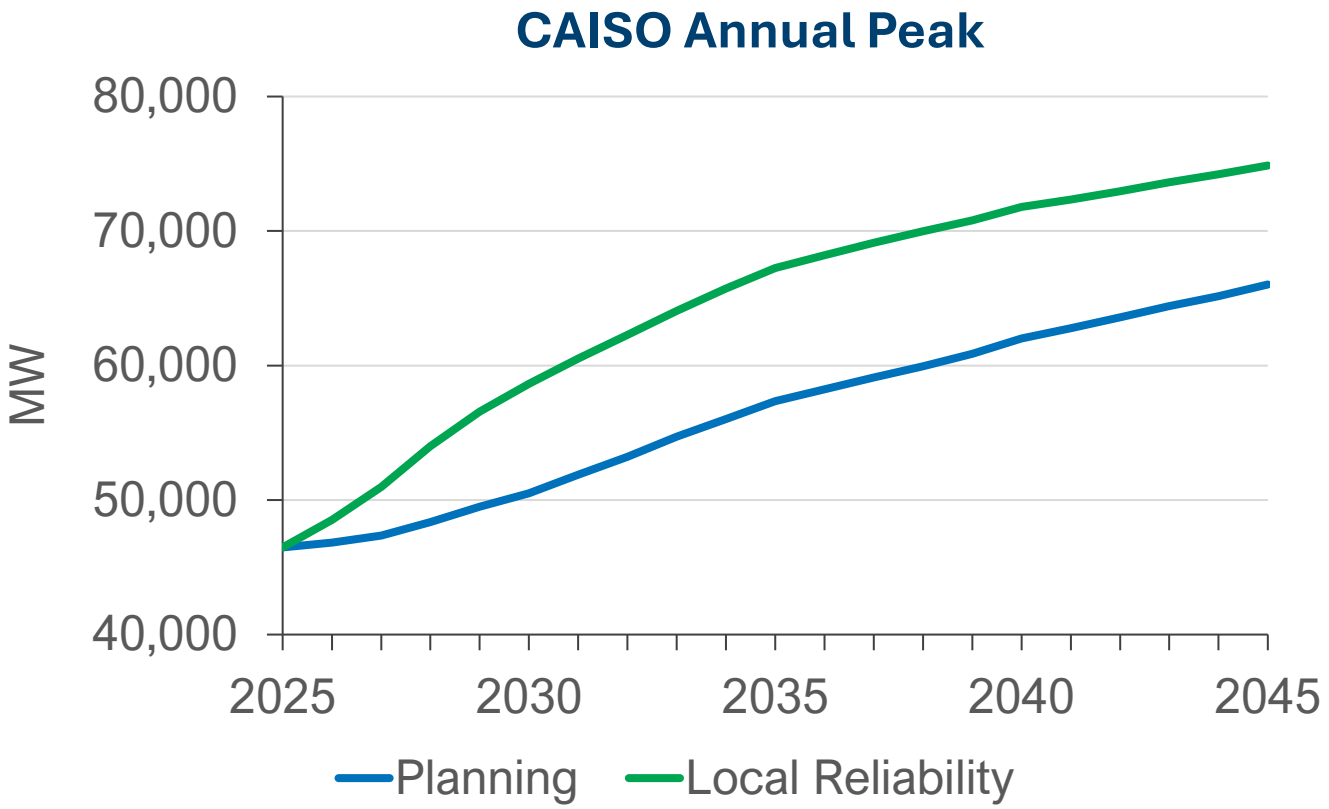
- In December 2025, utilities operating in CAISO reported:
  - Signed agreements: 5 GW
  - Active applications: 9.6 GW
  - Inquiries: 8.6 GW

Data Center Capacity Requests (Dec 2025, MW)



Source: CEC Staff

Two Scenarios Used for Planning



Planning Forecast

- Resource Adequacy
- Integrated Resource Planning
- Transmission Planning Process

Local Reliability Scenario (Higher)

- Local Transmission Planning
- Distribution Planning Process

Source: CEC Staff

Data Center Forecast Methodology

1. Request data center energization requests from utilities:
   - Application status, requested capacity, timeline, location

2. Apply assumptions:
   - Utilization factor (67%): requested capacity vs. max demand
   - Confidence level: Probability of project completion, varies based on application status
   - Ramping: Years to reach full capacity

3. Use interval meter data from existing data centers to develop an hourly load profile and quantify contribution to system peak

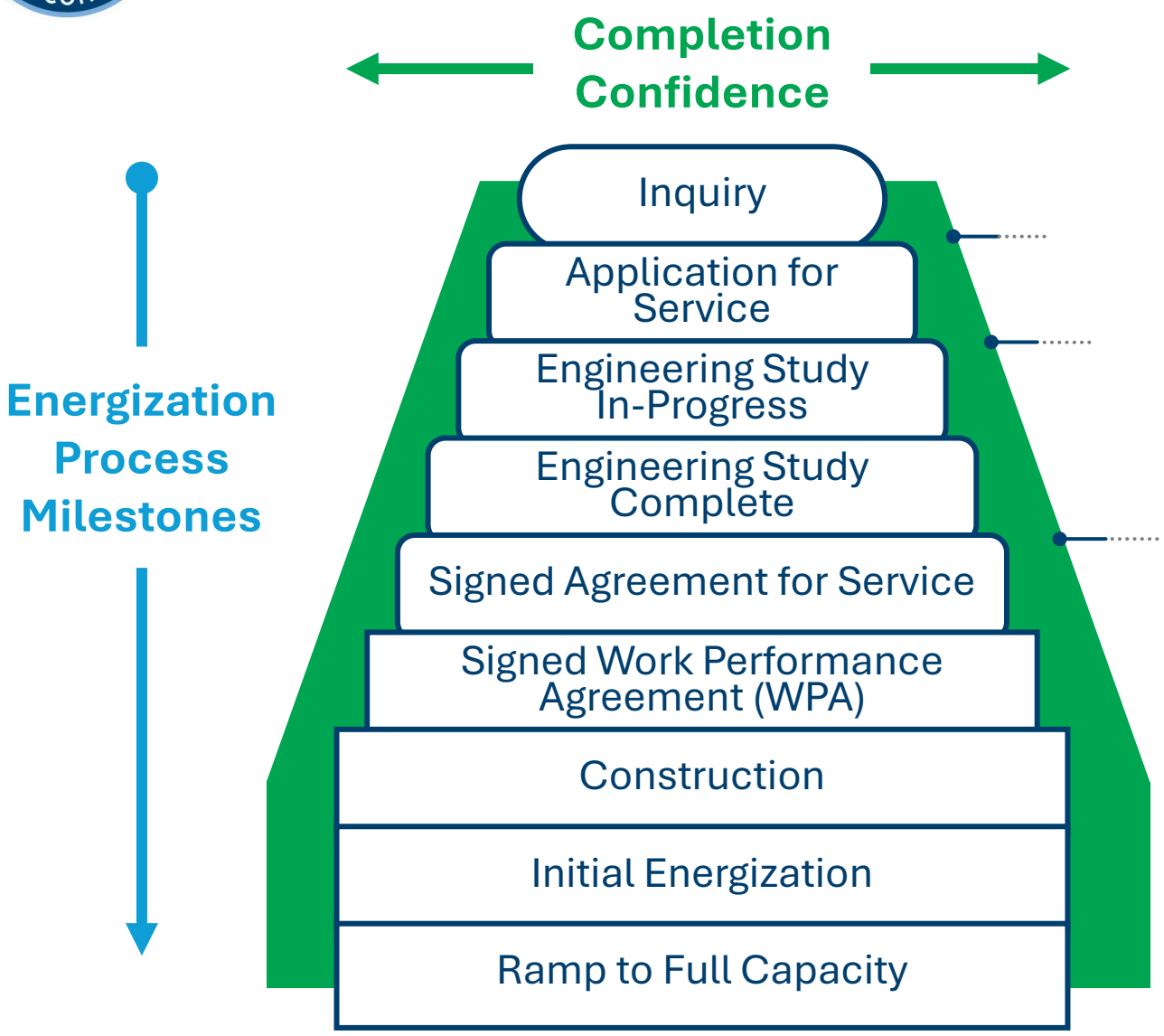
Project Groupings and Confidence Levels

For the 2025 IEPR:

Group Number	Group Definition	Low	Mid (Baseline & Planning Scenario)	High (Local Reliability Scenario)
1	Signed Agreement	50%	70%	100%
2	Active Application	-	33%	50%
3	Inquiry	-	-	10%

Source: CEC Staff

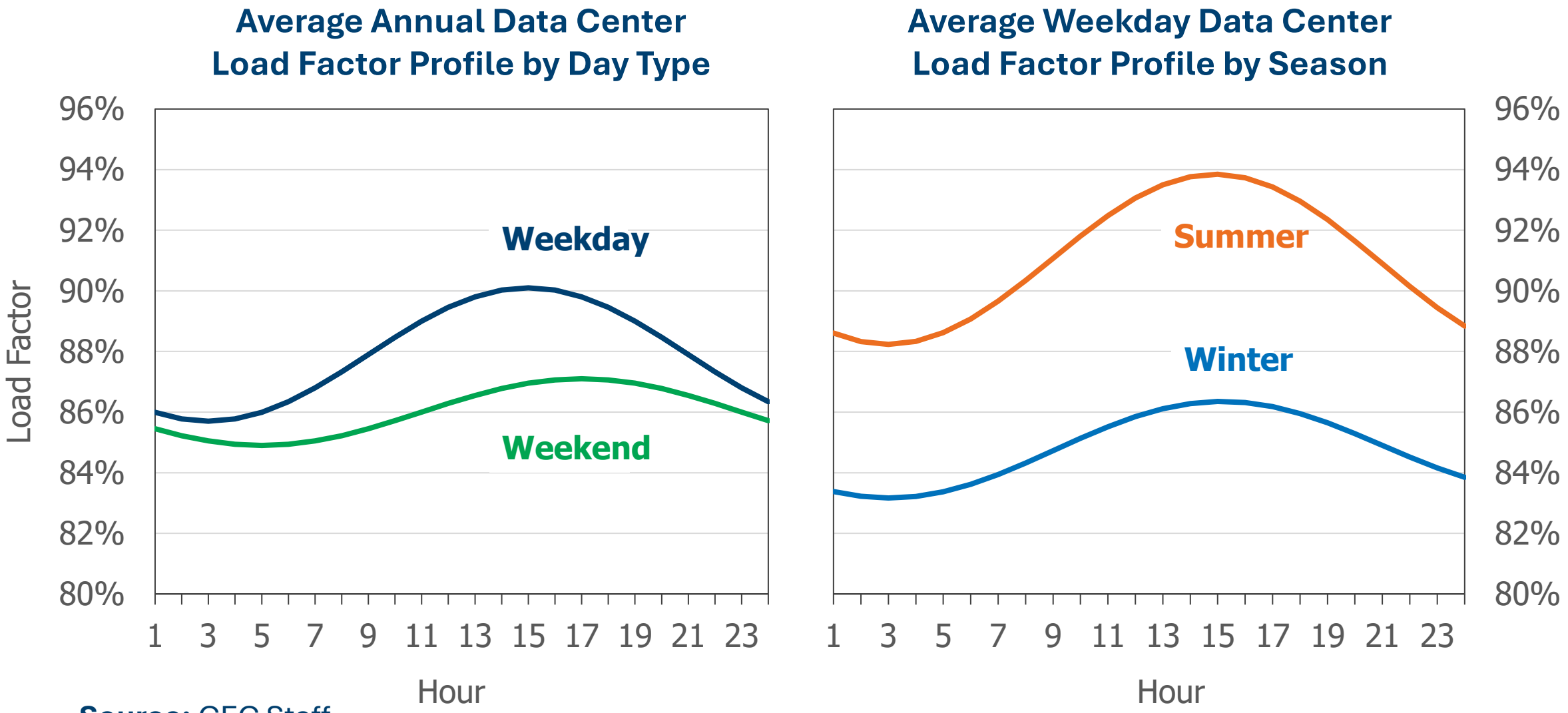
Energization Milestones and Project Groupings



2024 IEPR	2025 IEPR	2026 IEPR
Group 3	Group 3	
Group 2	Group 2	TBD
Group 1	Group 1	

Source: CEC Staff

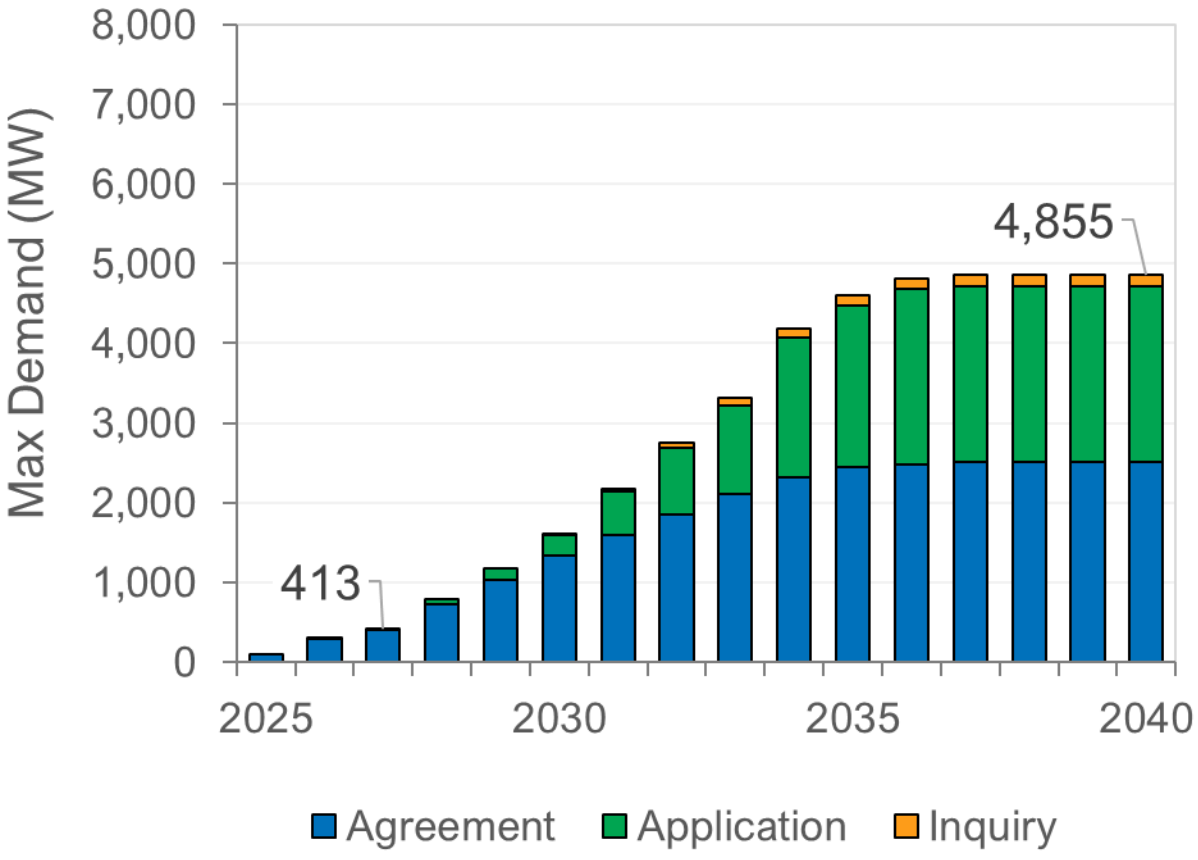
Hourly Load Factor Profiles (2025 IEPR)



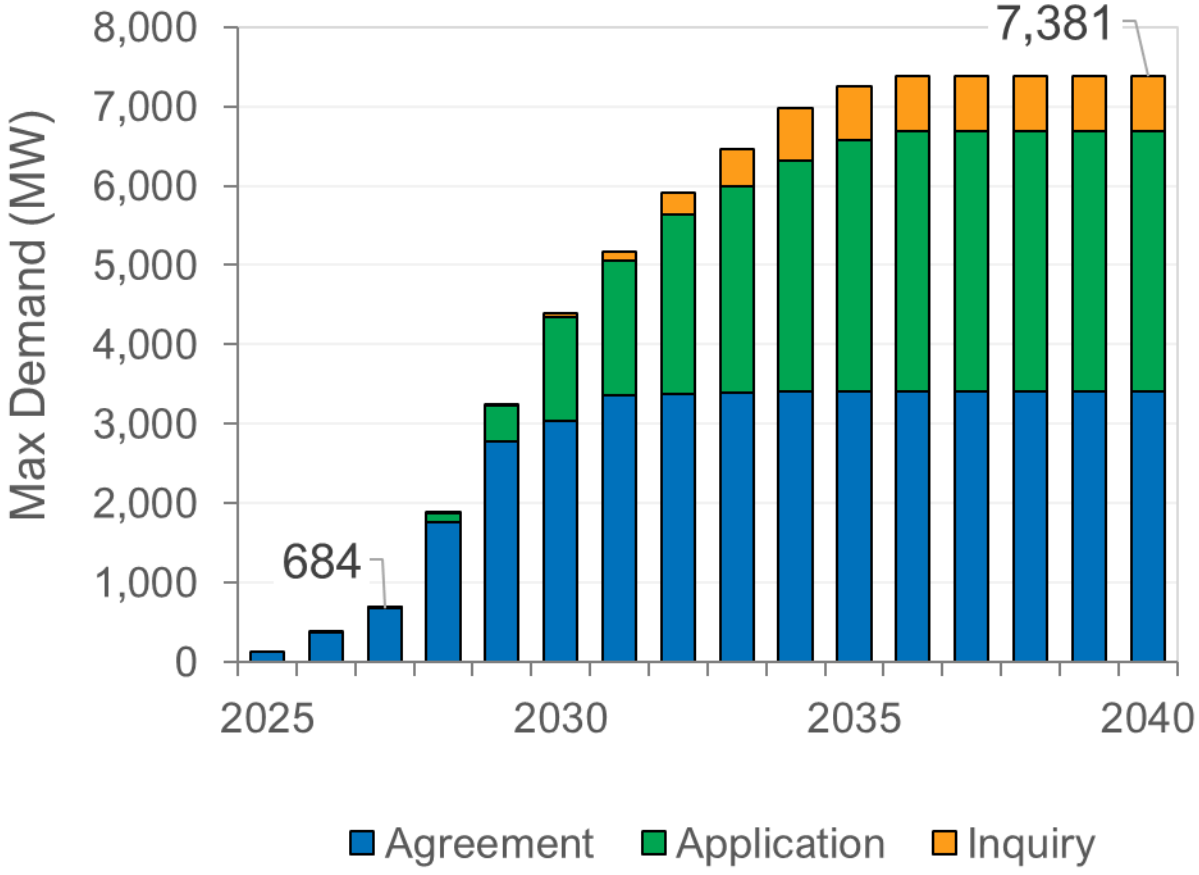
Source: CEC Staff

Data Center Demand Growth (2025 IEPR)

2025 IEPR: Planning



2025 IEPR: Local Reliability



Source: CEC Staff

2026 IEPR Data Center Forecast Process

Data center project data requests will be sent to:

- Pacific Gas & Electric, Southern California Edison, San Diego Gas & Electric, Silicon Valley Power, City of Palo Alto Utilities, Burbank Water and Power, San Jose Clean Energy, Vernon Public Utilities, Valley Electric Association (NV, part of CAISO)

Next steps:

- Present preliminary results at a DAWG and IEPR workshop later this year.
- In November/December, CEC will check if the data center application queue has changed significantly before finalizing the forecast for proposed adoption in January
- In Q1 2027, CEC will request information to disaggregate data center load impacts to busbar to support the CAISO's transmission planning

Areas of Interest for 2026 IEPR Cycle

- Increasing engagement with utilities and CCAs
- Improving project tracking beyond signed agreement for service
- Building a longitudinal dataset to track project milestone progress over time
- Tracking potential for sites to provide their own generation
- Developing unique load profiles for various data center types and/or sizes
- Improve visibility into emerging data center projects for CCAs and other LSEs

CEC Data Center Resources

- 2025 IEPR
- CEC Energy Planning Library - Documentation
- CED 2025 Data Center Growth Forecast Methodology
- CEC Data Centers Webpage

Thank You!

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Utility Presentations