

| <b>DOCKETED</b>         |                                                                          |
|-------------------------|--------------------------------------------------------------------------|
| <b>Docket Number:</b>   | 25-IEPR-03                                                               |
| <b>Project Title:</b>   | Electricity and Gas Demand Forecast                                      |
| <b>TN #:</b>            | 265229                                                                   |
| <b>Document Title:</b>  | Presentation - Incorporating New Load Energization Requests to Utilities |
| <b>Description:</b>     | 3.Asish Gautam, CEC                                                      |
| <b>Filer:</b>           | Raquel Kravitz                                                           |
| <b>Organization:</b>    | California Energy Commission                                             |
| <b>Submitter Role:</b>  | Energy Commission                                                        |
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# Incorporating New Load Energization Requests to Utilities

Asish Gautam, Energy Assessments

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# IOU Distribution Planning

- CPUC's High DER proceeding encourages proactive planning by utilities to meet CA economic, climate, and energy goals
  - Distributed resources, building and transportation electrification
  - Other new large loads
- Identify local areas in need of infrastructure investments for future GRC funding cycle
- IOUs include new energization requests, captured in the Known Loads Database, for consideration in distribution planning



# Known Loads Data

- Issued joint CPUC-CEC data request to obtain project level data from IOUs
  - Information collected include load category, capacity, status, distribution circuit ID, transmission substation, local capacity area
  - Known Loads data will help inform IEPR of near-term load growth
- Staff to incorporate project level data as part of baseline sales by sector
  - Apply load profiles
  - Additional analysis of AMI data to understand variation in load
  - Propose that EV charging stations be handled as before in 2024 IEPR
- For 2025 IEPR, staff proposes that Known Loads are included as part of Local Reliability scenario



# Incorporating Known Loads Data in IEPR Demand Forecast

- To avoid double counting impacts, CEC proposes to examine impacts by major sector (residential, commercial, industrial) and on an annual energy basis
- Add the “net load” of impacts from Known Loads data to IEPR baseline sales/consumption to avoid double counting

| Illustrative Example |                   |                     |             |                                |
|----------------------|-------------------|---------------------|-------------|--------------------------------|
| Year                 | Sector            | IEPR Baseline Sales | Known Loads | Net Addition to Baseline Sales |
| 2027                 | Residential (MWh) | 1,000               | 1,200       | 200                            |
| 2028                 | Residential (MWh) | 1,000               | 900         | -                              |



# Potential Peak Impacts from Incorporating Known Loads Data

| SDG&E |                     | Share Coincident with System (MW) |     |     | 2024 IEPR Reliability Scenario (Form1.5D)  |
|-------|---------------------|-----------------------------------|-----|-----|--------------------------------------------|
| Year  | Total Capacity (MW) | 10%                               | 25% | 50% | 1-in-10 Peak Demand Annual YOY Growth (MW) |
| 2026  | 88                  | 9                                 | 22  | 44  | 73                                         |
| 2027  | 200                 | 20                                | 50  | 100 | 99                                         |
| 2028  | 228                 | 23                                | 57  | 114 | 157                                        |
| 2029  | 250                 | 25                                | 62  | 125 | 145                                        |
| 2030  | 254                 | 25                                | 64  | 127 | 135                                        |
|       |                     |                                   |     |     |                                            |
| SCE   |                     | Share Coincident with System (MW) |     |     | 2024 IEPR Reliability Scenario (Form1.5D)  |
| Year  | Total Capacity (MW) | 10%                               | 25% | 50% | 1-in-10 Peak Demand Annual YOY Growth (MW) |
| 2026  | 846                 | 85                                | 211 | 423 | 230                                        |
| 2027  | 1,158               | 116                               | 290 | 579 | 345                                        |
| 2028  | 1,315               | 131                               | 329 | 657 | 491                                        |
| 2029  | 1,361               | 136                               | 340 | 680 | 619                                        |
| 2030  | 1,393               | 139                               | 348 | 697 | 567                                        |
|       |                     |                                   |     |     |                                            |
| PG&E  |                     | Share Coincident with System (MW) |     |     | 2024 IEPR Reliability Scenario (Form1.5D)  |
| Year  | Total Capacity (MW) | 10%                               | 25% | 50% | 1-in-10 Peak Demand Annual YOY Growth (MW) |
| 2026  | 696                 | 70                                | 174 | 348 | 503                                        |
| 2027  | 1,055               | 105                               | 264 | 527 | 561                                        |
| 2028  | 1,250               | 125                               | 312 | 625 | 1,317                                      |
| 2029  | 1,382               | 138                               | 345 | 691 | 1,121                                      |
| 2030  | 1,998               | 200                               | 500 | 999 | 1,253                                      |

- Depending on how coincident Known Load projects are with utility system peak, Known Loads could significantly increase peak demand.
- For 2025 IEPR, CEC recommends that impacts from Known Loads data only be included for Local Reliability scenario to limit downstream impacts (RA, IRP, etc).
- Future IEPR cycles could include Known Loads in Planning Scenario



# Next Steps

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- Near-term:
  - CEC to include impacts of Known Load data into 2025 IEPR forecast to reflect impacts at system level as part of local reliability scenario
- Long-term:
  - CEC to explore models/tools to develop a more granular forecast



# Thank You!

## Questions or Comments

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