

DOCKETED

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Overview of IOU Distribution Planning and CPUC Activities

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California Public Utilities Commission

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California Public
Utilities Commission

Key Concepts

Interconnection

- BTM Generation / Storage
- Applicable Tariff
 - Rule 21 Interconnection



Vast Majority of Requests Currently Require no Distribution Upgrades



Energization

- New Customer or Electrification Load
- Applicable Tariffs
 - Rule 15 Distribution Line Extensions
 - Rule 16 Service Line Extensions
 - Rule 29/45 EV Service Extensions or Electric Distribution Infrastructure



Distribution Planning Process

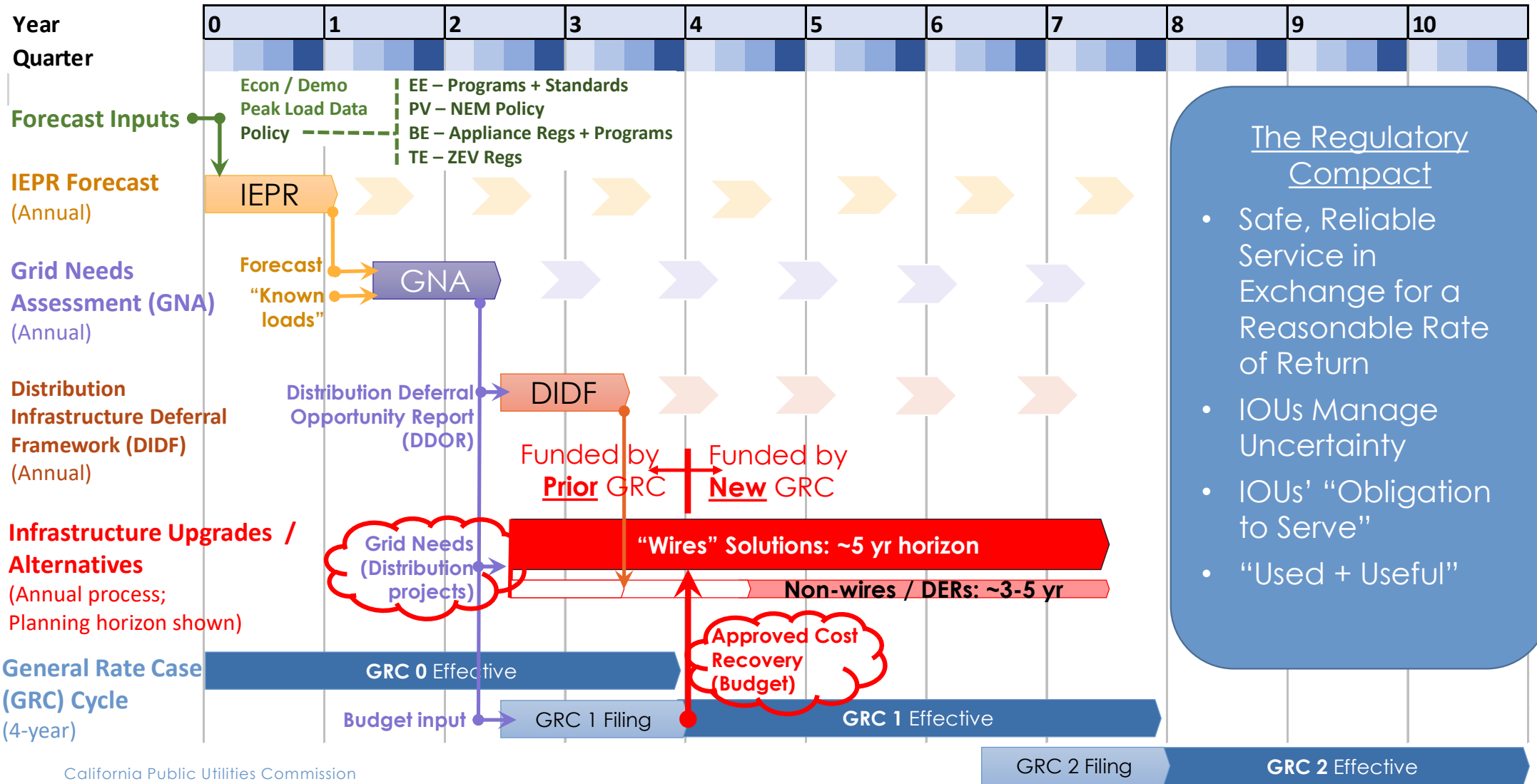
- Defines **Distribution Grid Needs** (Distribution Projects or Solutions) on Various **Timescales**

~Short (Mos to ~2 yrs)	~Mid (~3-5 yrs)	~Long (~4-7+ yrs)
<ul style="list-style-type: none"> • Reconductor lines • Reconfigure circuits • Back ties • Secondary transformers 	<ul style="list-style-type: none"> • Build new circuits • Add/Replace substation transformer • Capacitor banks 	<ul style="list-style-type: none"> • Substation upgrades, expansions, or new substations

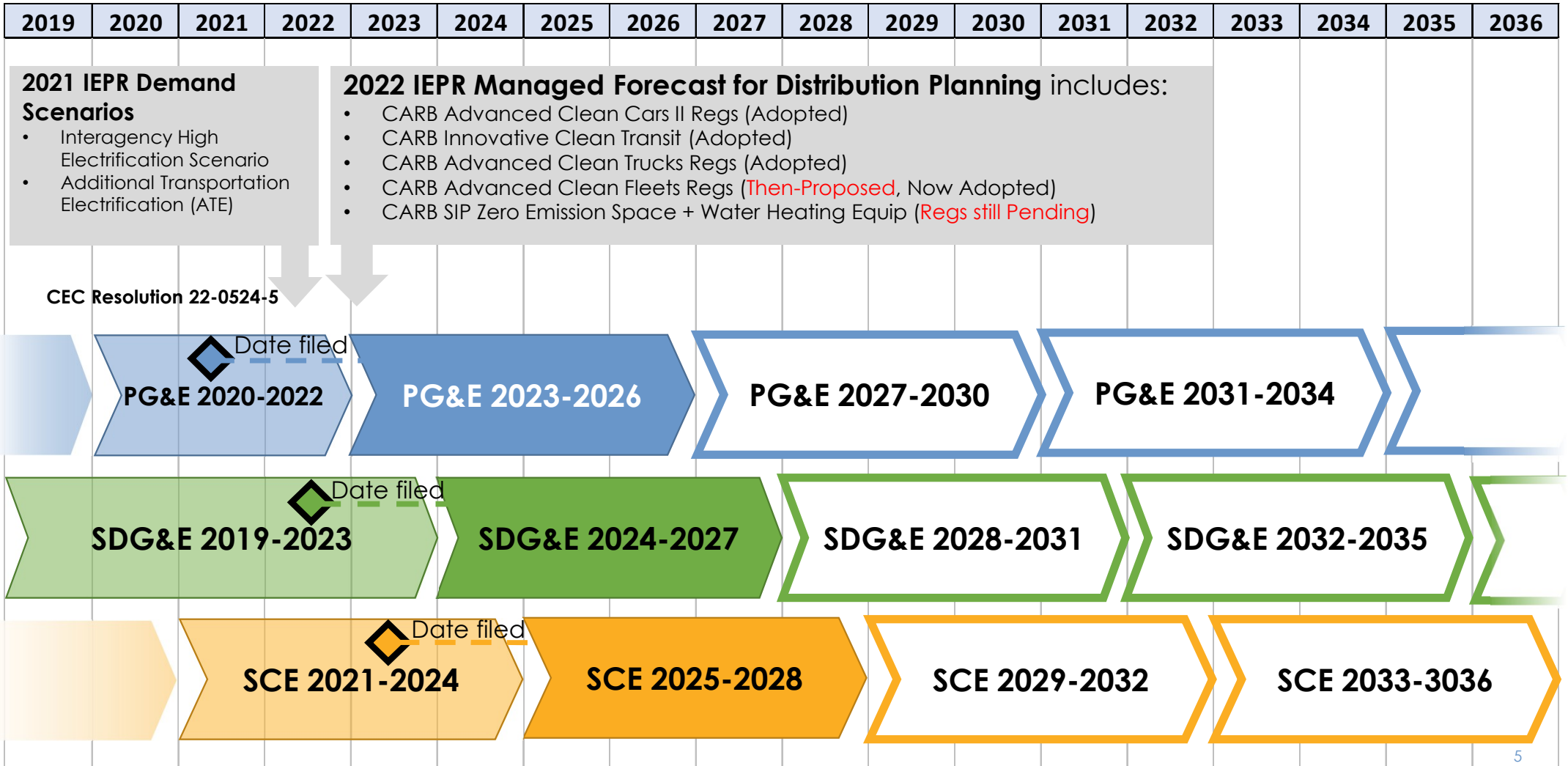
Distributed Resource Plan (DRP) Proceeding

- AB 327 (2013) set forth the DRP Rulemaking (R.)14-08-013
- Series of CPUC decisions¹ adopted utility requirements to “minimize overall system costs and maximize ratepayer benefit from investments in distributed resources”
- Greater transparency, oversight, stakeholder involvement
 - Use of IEPR forecast or approved deviation justified by advice letter
 - Distribution Deferral Investment Framework
 - Integration Capacity Analysis
 - Public Data portal for developers and local/tribal governments
 - Linkages to General Rate Case (GRC) process
- Successor High DER Rulemaking (R.)21-06-017 scoped to further refine

Current Distribution Planning Process: Overview in Concept



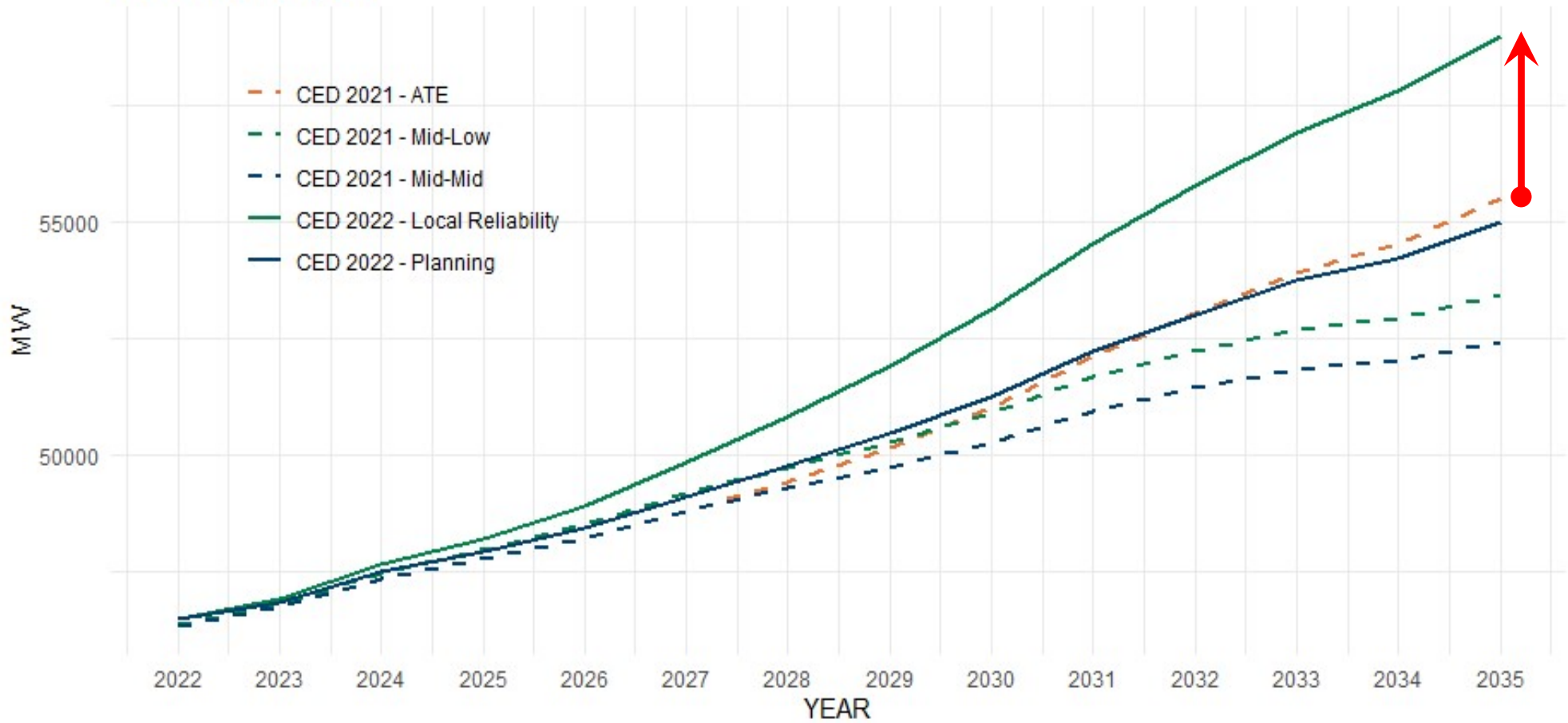
Large IOUs' GRC Plan and Recent IEPR Activity



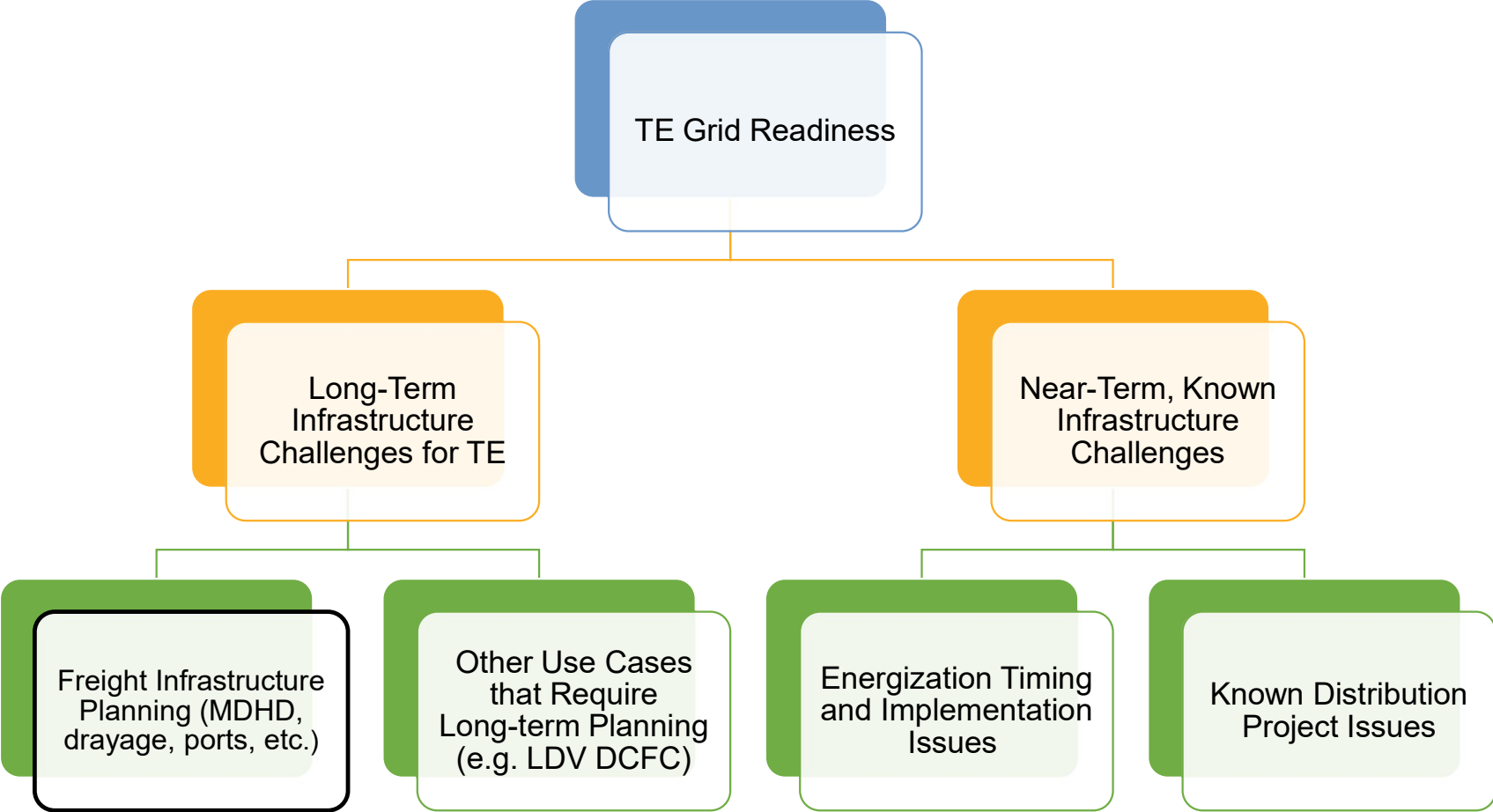


CEC 2022 Annual Peak Forecast

CAISO annual peak



TE Grid Readiness: Short and Long-term Challenges



CPUC Initiatives Underway

High DER R.21-06-017

- Successor to Distribution Resource Plans R.14-08-013
- Scope includes
 1. Preparing the Grid and DPP for High Electrification
 2. Appropriate Cost Recovery Venue (GRC or other)
 3. IEPR-GNA-GRC Alignment
 4. IOUs' External Engagement on Load Planning
- Electrification Impacts Consultant Study underway

Freight Infrastructure Planning (FIP) Framework

- MD/HD Focus
- Interagency collaboration (CEC-CARB-CTC-CAISO)
- Objectives include
 1. Process for common MD/HD inputs in IEPR, DPP, IRP, and GRC
 2. Inform IEPR demand scenarios to reflect uncertainty
 3. Optimize fleet and electric sector needs
 - Identify "ready-to-electrify" zones + highest priority zones for long lead time infrastructure development

Integration Capacity Analysis (ICA) - Load

- Required by DRP decision
- Public Data Portal identifies available capacity for:
 - Interconnection (ICA-Gen) – Implemented
 - **Energization (ICA-Load) – Pending refinement**
- Objectives include
 1. Streamlining energization applications to reduce time frames and increase certainty.
 2. Facilitate siting of EV charging stations and streamline energization.
- IOUs' Suggested Timelines for ICA-Load Refinements:
 - PG&E: Q4 2024 (Accelerated)
 - SDG&E: Q3 2025
 - SCE: Q4 2026



Appendix

CARB zero-emission vehicle + freight regulations

- CARB has adopted a suite of regulations¹ that will transform the CA vehicle fleet to zero-emissions. Included in this portfolio are:
 - Advanced Clean Cars II regulation grows the percentage of new cars sales that are zero-emission from 35 percent in 2026 to 100 percent by 2035
 - Innovative Clean Transit regulation transitions all buses to zero-emission by 2040
 - Advanced Clean Trucks regulation requires growing percentages of zero-emission trucks with proposed amendments that would take this requirement to a 100 percent fleet by 2040
 - Advanced Clean Fleets transitions drayage trucks, public and high priority fleets to zero-emission through vehicle replacement requirements starting in 2024
- In aggregate, these regulations represent a significant and concentrated electrical load (especially near freight hubs), significant grid upgrades, grid integration challenges, and large-scale public charger deployment

Distributed Resource Plan (DRP) Outcomes: Adopted Frameworks

