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Integrated Resource Planning (IRP) Preferred System Plan (PSP)

Presentation to the Disadvantaged Communities Advisory Group (DACAG)

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February 21, 2025

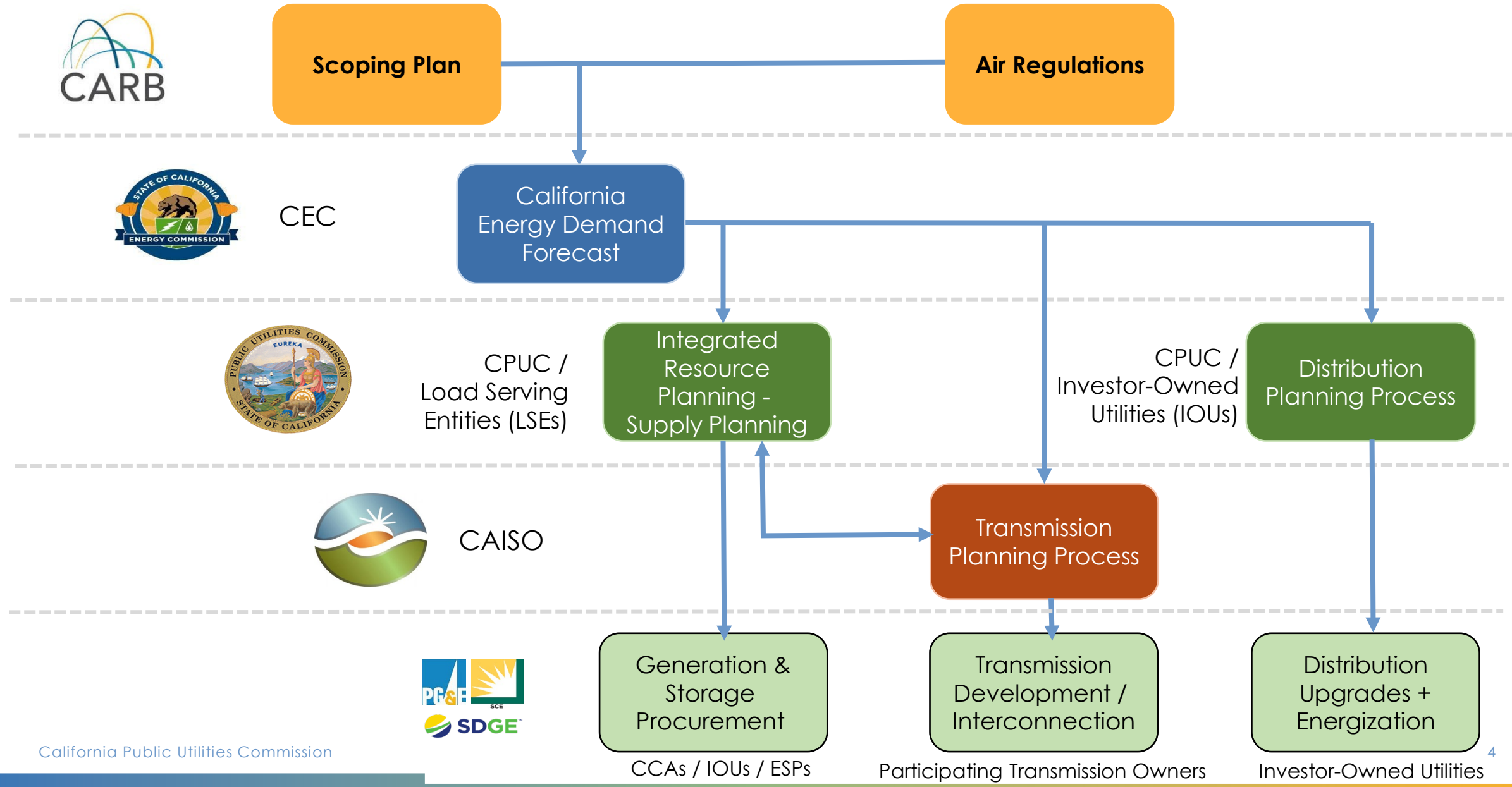
California Public Utilities Commission

Agenda

- Background
- An Integrated Resource Planning (IRP) Cycle
- Upcoming 2024-26 IRP Cycle

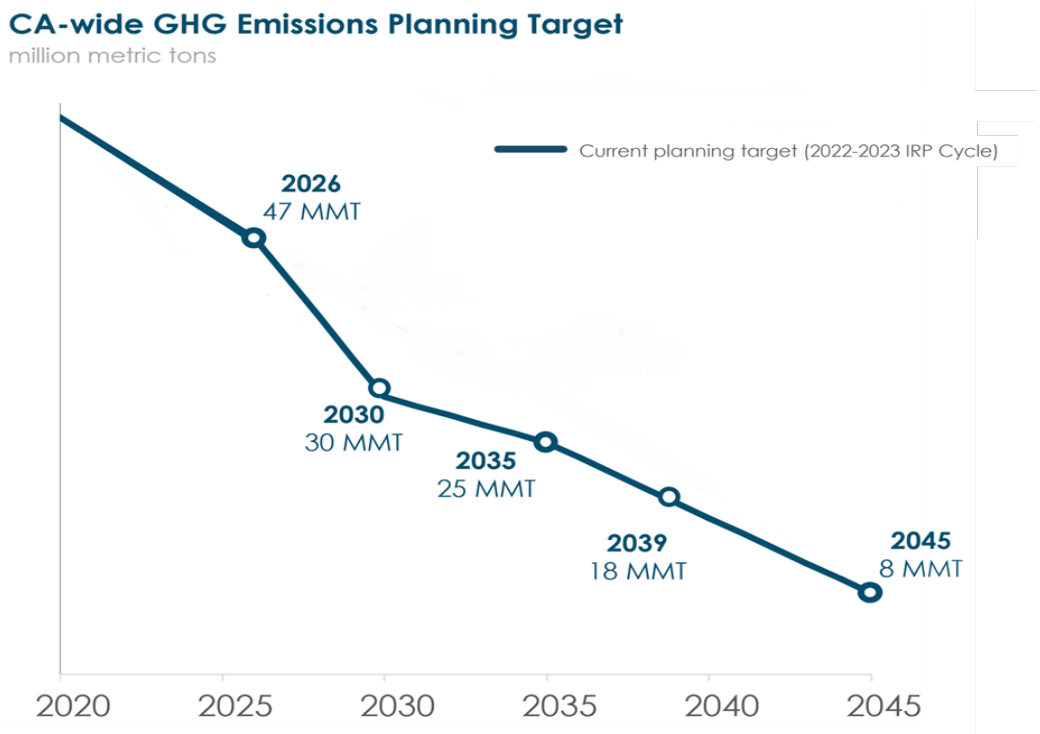
Background

California Statewide Energy Planning Process – High Level Overview



Integrated Resource Planning Goals

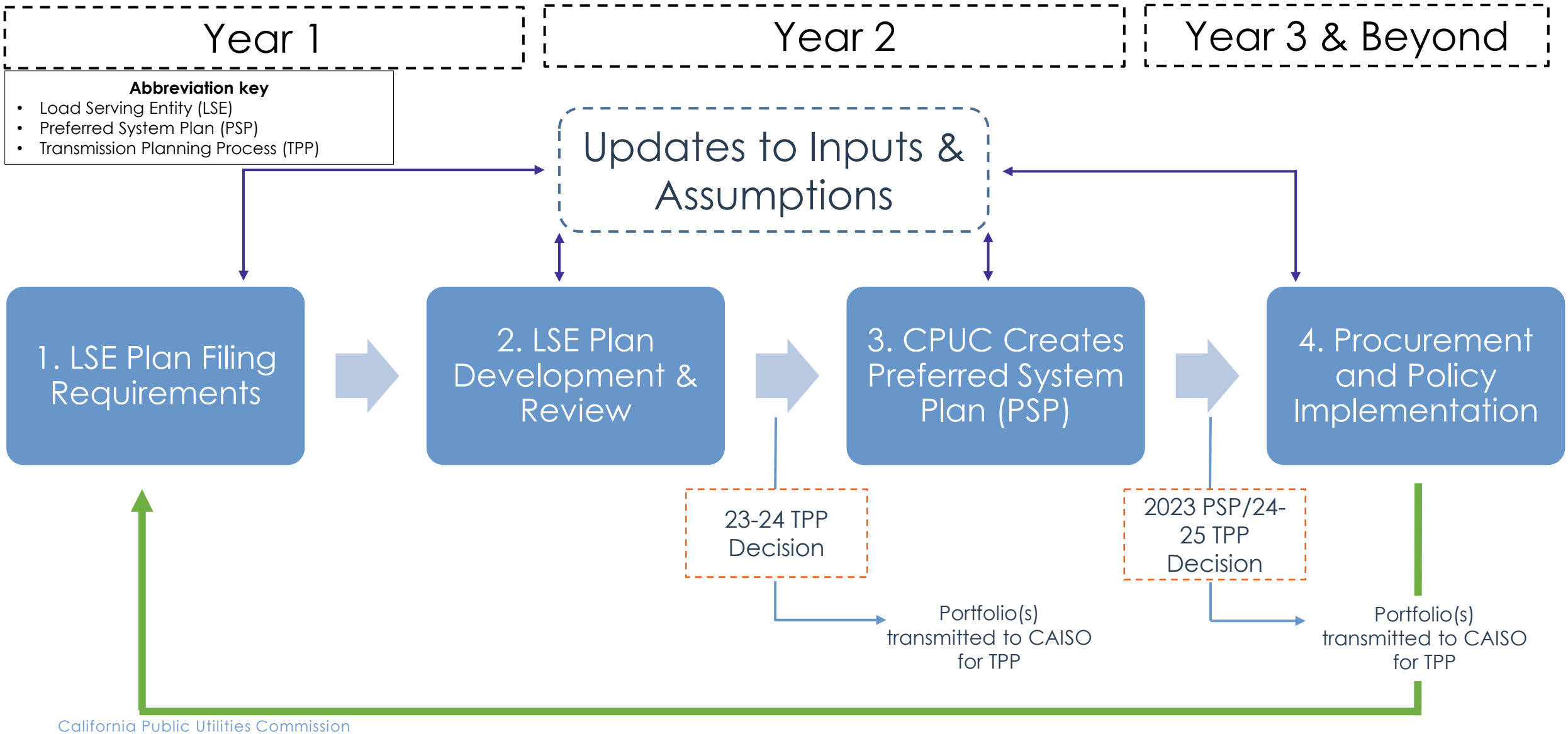
- CPUC established the **Integrated Resource Planning** process for setting electricity resource planning targets for CPUC - Jurisdictional LSEs in CAISO's Balancing Area Authority (BAA)
  - Consistent with SB 350 (2015) and SB 100 (2018)
  - Designed as a multi-step analytical planning process with input from load-serving entities and stakeholders
- IRP intends to achieve a resource portfolio that achieves:
  - Reliability
  - Greenhouse Gas Emission (GHG) reductions and clean energy procurement
  - Least cost
- Most recently adopted IRP "Preferred System Plan," which plans for a portfolio that could reduce GHGs by 58% in 2035 compared to 2020 levels



Source: CPUC February 2024 Preferred System Plan Portfolio, https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/long-term-procurement-planning/2022-irp-cycle-events-and-materials

An Integrated Resource Planning (IRP) Cycle

Overview of the 2022-23 IRP Cycle



Inputs & Assumptions (I&A) in IRP

- The Inputs and Assumptions (I&A) document describes the key data elements, assumptions, and methodologies for CPUC IRP modeling within a given cycle.
- IRP Staff work with IRP stakeholders to vet and update changes to I&A throughout IRP cycles to balance:
  - All possible updates with what can reasonably be implemented with sufficient time to conduct modeling.
  - Use of proprietary data with the need to use best-available public information.
  - Scope ranging from significant (e.g., new model functionality) to more routine (e.g., annual resource cost updates).

1. LSE Plan Filing Requirements – Purpose

In the 2022-23 IRP Cycle, Load Serving Entities (LSEs) were required to submit the following documents as a part of their individually filed IRPs:

- **Narrative Templates (NTs)**: To describe how LSEs approached the process of developing its plan, present the result of analytical work, and demonstrate to the Commission and the stakeholders the LSE's action plans
- **Clean System Power (CSP) Calculator**: To use in estimating the GHG and criteria pollutant emissions of LSE portfolios and verify that LSE portfolios achieve assigned GHG planning benchmarks
- **Resource Data Template (RDT)**: To collect planned and existing monthly LSE contracting data, including for future resources which do not exist yet. Provides a snapshot of the LSE contracted and planned monthly total energy and capacity forecast positions over a ten year look ahead period. Also used to verify that LSE portfolios achieve assigned reliability planning standard

2. LSE Plan Development & Review – Evaluating LSEs' Narrative Templates

- IRP staff evaluate select narrative template sections using a scorecard system that is published with the PSP Decision. LSEs receive one of the following scores:
  - **Exemplary:** response reflects surpassing requirements and potentially setting a standard for future best practices for other LSEs to emulate.
  - **Adequate:** response reflects a satisfactory fulfillment of the individual requirement; this score indicates that the LSE provided all of the required information.
  - **Deficient:** response reflects a failure to meet the requirement or answer the question included in the template or in the statutory language that underlies the filing requirement.
    - Deficient Scores: LSEs Required to formally fill-out supplemental Narrative Template.
    - LSEs failing to submit required information may be required to re-submit and could be subject to IRP's citation program if needed.

2. LSE Plan Development & Review – Areas DAC Criteria Considered in IRP Narrative Templates

LSE score cards include the following review areas and requires LSEs to describe:

- **Study Results**
  - Preferred Conforming Portfolios – LSEs' preferred IRP portfolio
  - Local Air Pollutants – NO_x, SO_2, and PM2.5 results for preferred IRP portfolio
  - Focus on Disadvantaged Communities – how LSEs' preferred IRP portfolio minimize localize pollutants in DACs, which DACs it serves, and outreach to DACs
  - Cost and Rate Analysis – how LSEs are considering rate impacts for customers
- **Action Plan**
  - Proposed Procurement Activities and Potential Barriers – actions to bring online resources identified in preferred IRP Portfolio
  - Disadvantaged communities – specific details on any current and planned LSE activities/programs to address DACs, including those located within the geographic area served by the LSE and beyond, and describe how the LSE's actions and engagement have changed over time.

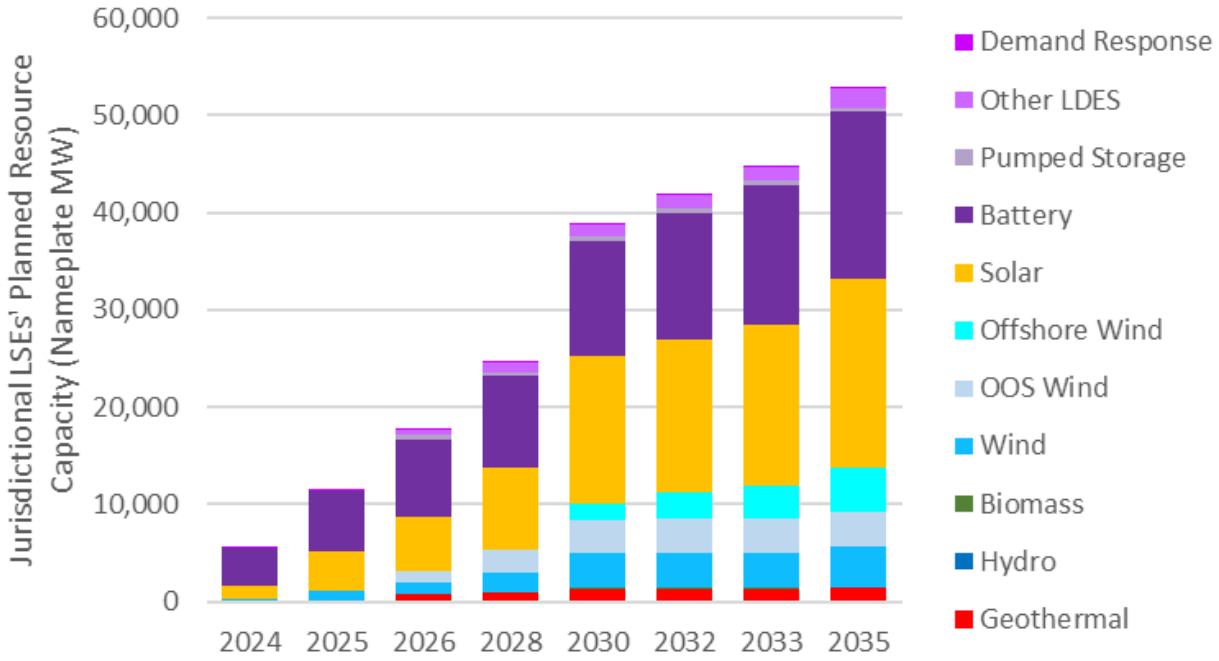
3. CPUC Creates Preferred System Plan (PSP) – Use of Aggregated LSE Plans in PSP Development

CPUC staff aggregate individual LSE plans and evaluate portfolio against overall electric system needs. Aggregated portfolio:

- Evaluated against reliability and GHG constraints, while seeking to meet these constraints at the lowest reasonable cost to ratepayers.
- Serves to determine if there are gaps in the collective portfolio that will require action by the Commission to address.

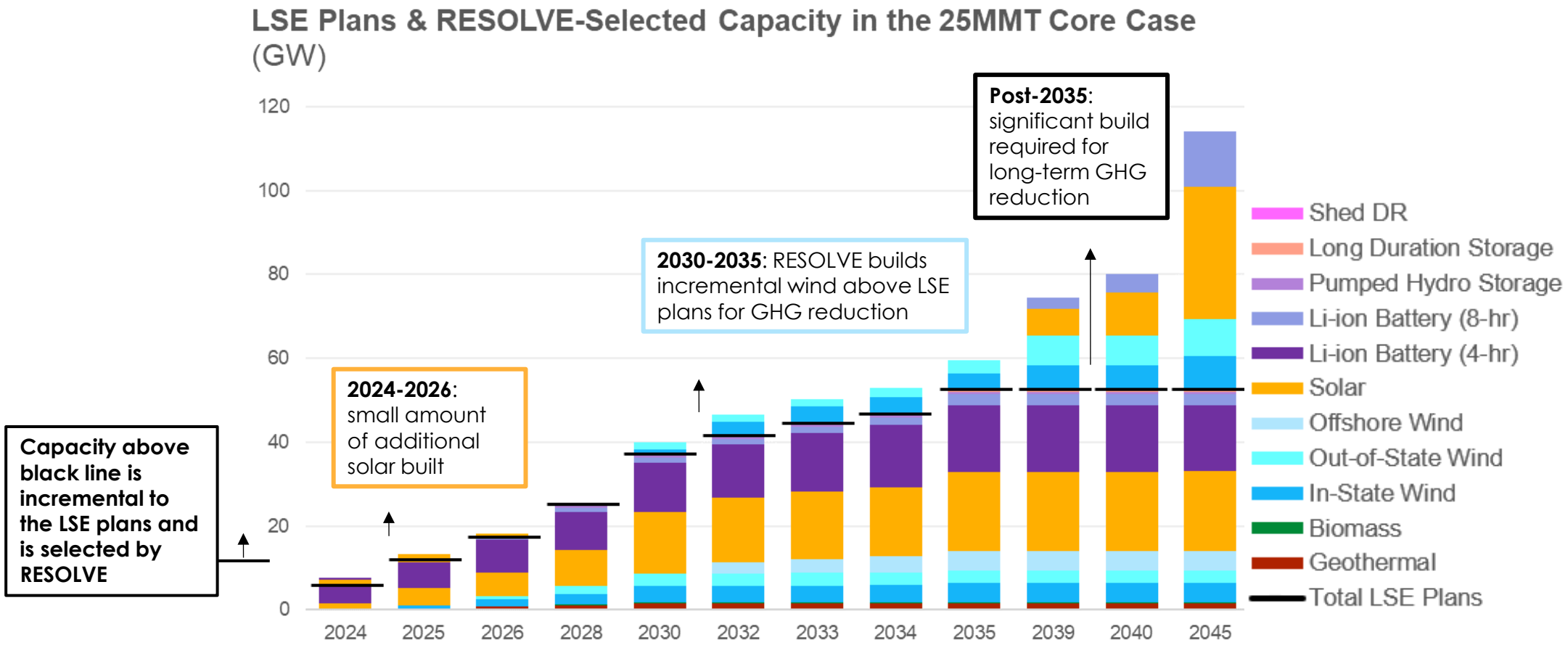
3. CPUC Creates Preferred System Plan – Aggregation of LSEs' Planned Resources

- CPUC Jurisdictional LSEs collectively planned for targets of:
  - 18.6 million metric ton (MMT) (2030) and 15.0 MMT (2035), which is the CPUC-jurisdictional share of the statewide 30 MMT (2030) and 25 MMT (2035) statewide electric sector targets.
- **Actual plans showed an excess of required reductions:** All LSEs met their assigned greenhouse gas (GHG) benchmarks, with some achieving emissions well below their assigned benchmarks:
  - LSE Emissions in 2030, per aggregated LSE clean system power (CSP) results: **15.1 MMT**
  - LSE Emissions in 2035, per aggregated LSE CSP results: **12.2 MMT**
- When aggregated, CPUC Jurisdictional LSEs demonstrated collective intentions to exceed their proportional GHG reduction requirements.
  - Their aggregated 25 MMT Portfolios reduced GHG emissions by ~3 MMT below their GHG emissions targets



3. CPUC Creates Preferred System Plan - Planned Builds vs. Model-Selected Builds (GW)

CPUC conducts modeling to identify additional resources needed above LSEs' planned resources. This becomes the PSP portfolio; the 2023 PSP portfolio is shown below.

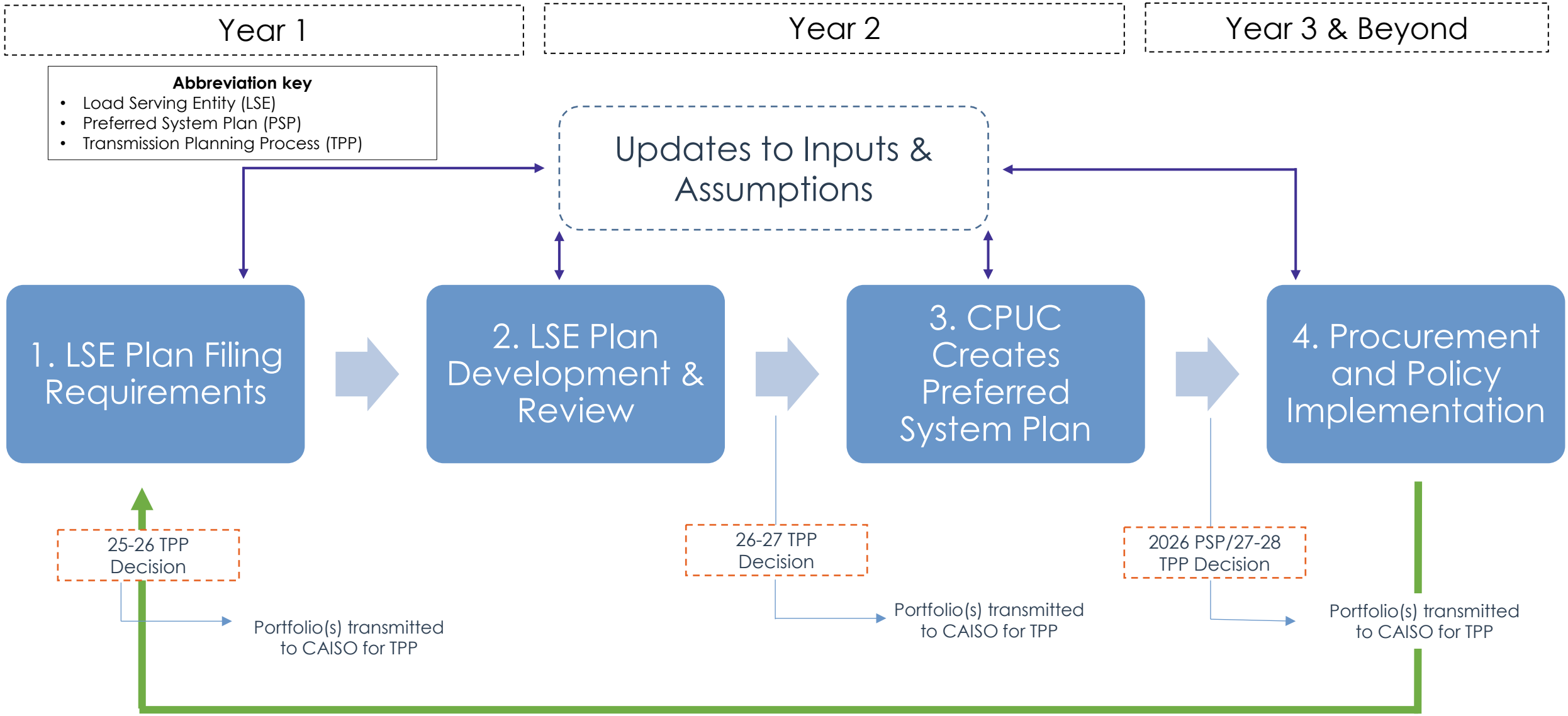


What do IRP's Portfolios Inform?

- **Load Serving Entity (LSE) planning:** In the 2019-21 IRP cycle, the 2021 Preferred System Plan (PSP) was used as the basis for developing LSE IRP filing requirements for the 2022-23 IRP cycle.
- **CAISO Transmission Planning Process (TPP):** The PSP is typically adopted and transmitted to CAISO for assessing transmission needs as a TPP base case. Other portfolios may also be transmitted for study as sensitivities in TPP
- **Avoided Cost Calculator (ACC):** The PSP will likely be used as the basis for the 2024 ACC update. This update may also inform the NEM proceeding
- **Gas forecasting:** The PSP is the basis for the gas forecasts used in other proceeding, such as the Aliso Proceeding (I.17-02-002)
- **SB 100:** The SB 100 analysis will incorporate the adopted PSP portfolio

Upcoming 2024-2026 IRP Cycle

Overview of the 2024-26 IRP Cycle



Opportunities for Ongoing Engagement in IRP

- Key activities were outlined in the April 2024 Scoping Memo
- IRP processes have multiple points of engagement, including **workshops** and opportunities to submit **informal feedback** to staff and **formal comments** to the proceeding

Milestone	Approximate Date	Engagement Points
2025-2026 TPP Decision	Q1-2025	Cycle Complete • Commission voted to adopt the portfolio on February 20
Inputs and Assumptions (I&A) Updates	Q4-2024 to Q2-2025	• **February 27** Workshop on Draft I&A • Informal Stakeholder comments following workshop
2024-2026 IRP Cycle • Local tool development • Filing Requirements • IRPs filed *Not yet scoped:* • *2026-27 TPP* • *2026 PSP/27-28 TPP*	Q2-2025 to Q4-2025 *TBD*	2024-2026 IRP cycle • **March 26** webinar on new "local capacity" model • **~June 2025** Staff Workshop on LSE Filing Requirements • **~November 2025** LSE IRPs filed to CPUC docket *Likely to be scheduled:* • ***~Fall 2025** Busbar mapping workshop* • ***~Fall 2026** Workshop on PSP Ruling analyses*

Questions?

Acronym Glossary

AB	Assembly Bill
ACC	Avoided Cost Calculator
CAISO	California Independent System Operator
CARB	California Air Resources Board
CCA	Community Choice Aggregator
CEC	California Energy Commission
CPUC	California Public Utilities Commission
CSP	Clean System Power [calculator]
ESP	Electric Service Provider
Greenhouse Gas	GHG
GW	Gigawatt
I&A	Inputs and Assumptions
IOU	Investor-Owned Utility
IRP	Integrated Resource Planning
LSE	Load Serving Entity
MMT	Million Metric Tons
MTR	Mid-Term Reliability
NREL	National Renewable Energy Laboratory
OSW	Offshore Wind
PSP	Preferred System Plan
SB	Senate Bill
TPP	Transmission Planning Process