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2025 IEPR Forecast Overview

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December 17, 2025

Why does CEC forecast energy demand?

Warren-Alquist Act

Established the CEC

Public Resources Code 25301(a)

Requires the CEC to "conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices."

CA Energy Demand Forecast

- Foundational for procurement and system planning in the state
- Informs:
  - Resource adequacy requirements
  - Integrated resource planning
  - Reliability assessments
  - Transmission system planning
  - Distribution system planning

IEPR Forecast Products

- Updated annually, with a full refresh in odd years
- 15+ year system-level forecast of electricity demand
  - Annual electricity demand
  - 8760 hourly electricity loads for a 1-in-2 year
  - Scenarios for distributed generation, energy efficiency, building electrification, and transportation electrification
  - 1-in-5, 1-in-10, and 1-in-20 year net electricity peak
- Final results posted in mid-January
- Single Forecast Set agreement between CPUC, CAISO, and CEC documented in IEPR

Forecast Approach Overview

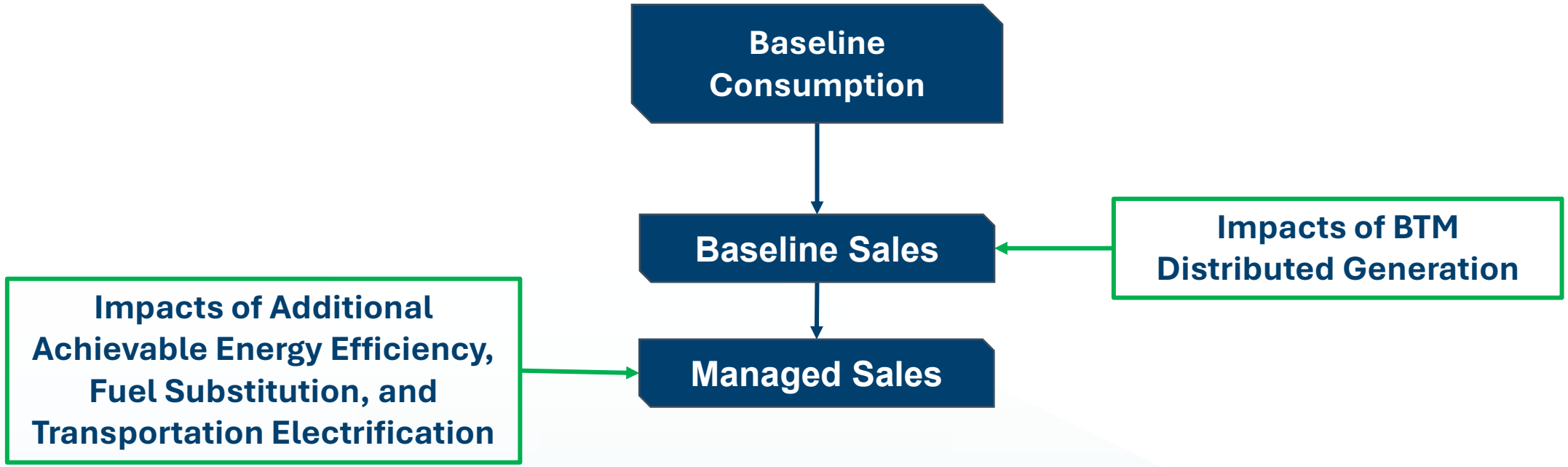
Electricity Forecast Planning Areas

1. Pacific Gas and Electric
2. Southern California Edison
3. San Diego Gas & Electric
4. Northern California Non-California ISO (NCNC)
5. Los Angeles Department of Water and Power
6. Imperial Irrigation District
7. Burbank/Glendale
8. Valley Electric Association

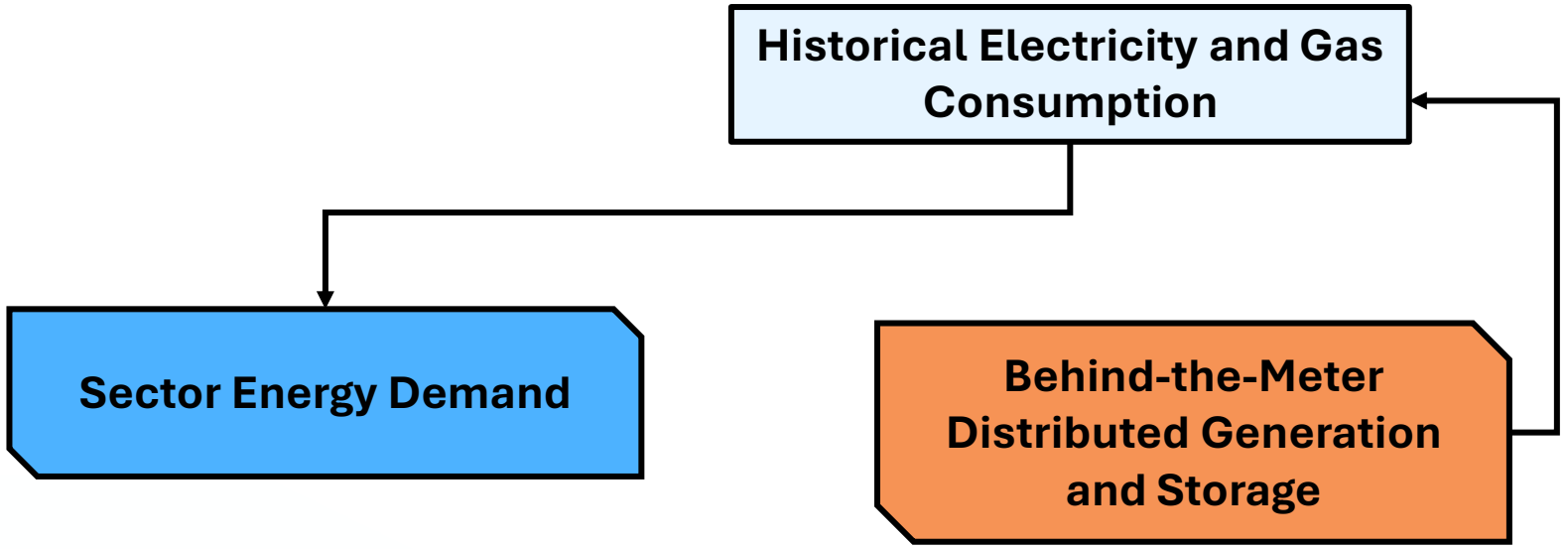
Forecast Zones

Planning Area	Forecast Zone
PG&E TAC Area	1. Greater Bay Area
	2. North Coast
	3. North Valley
	4. Central Valley
	5. Southern Valley
	6. Central Coast
SCE TAC Area	7. LA Metro
	8. Big Creek West
	9. Big Creek East
	10. Northeast
	11. Eastern
Northern California Non-California ISO (NCNC)	13. SMUD
	14. Turlock Irrigation District
	15. Remainder of BANC

Forecast Terminology

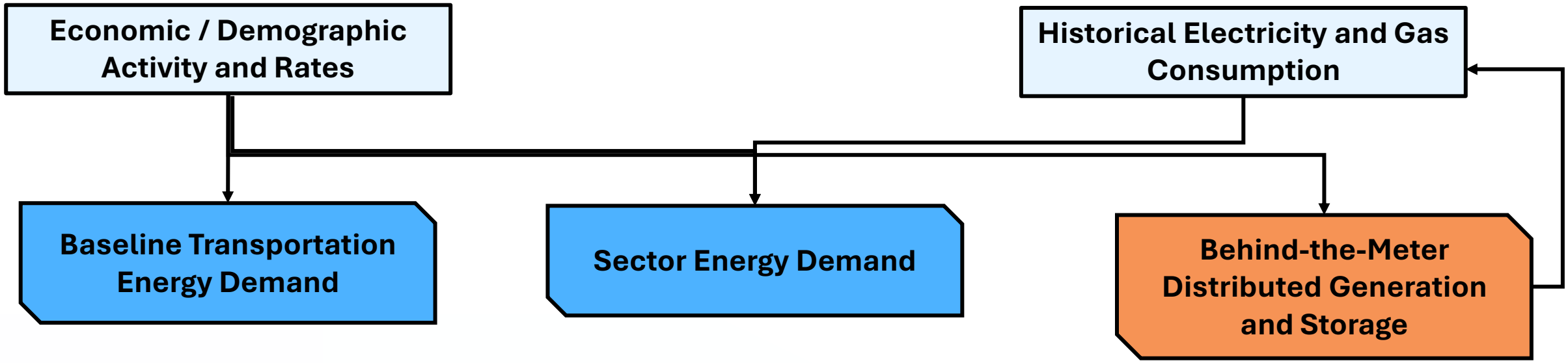


Energy Demand Model System (1)



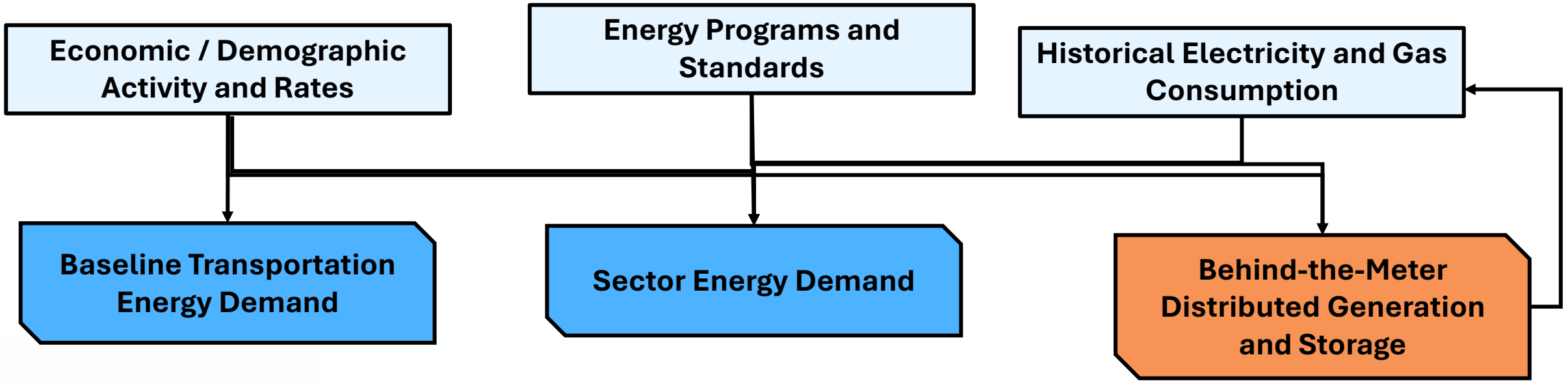
- Historical energy demand starts with latest sales data from QFER
- Estimates of historical distributed generation are added to historical sales data to estimate historical consumption
- Historical consumption data are provided to end use and NAICS based forecast models

Energy Demand Model System (2)



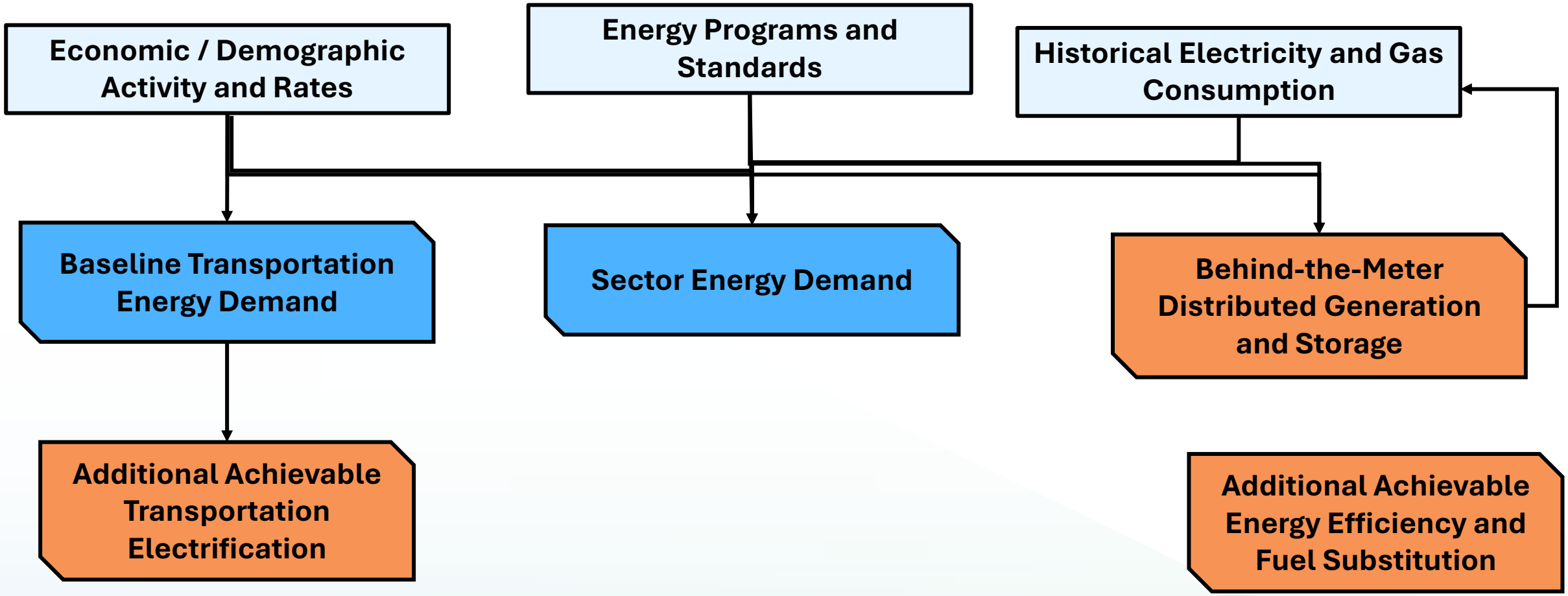
- Economic and demographic assumptions along with rate forecasts are inputs to the sector, distributed generation, and transportation models

Energy Demand Model System (3)



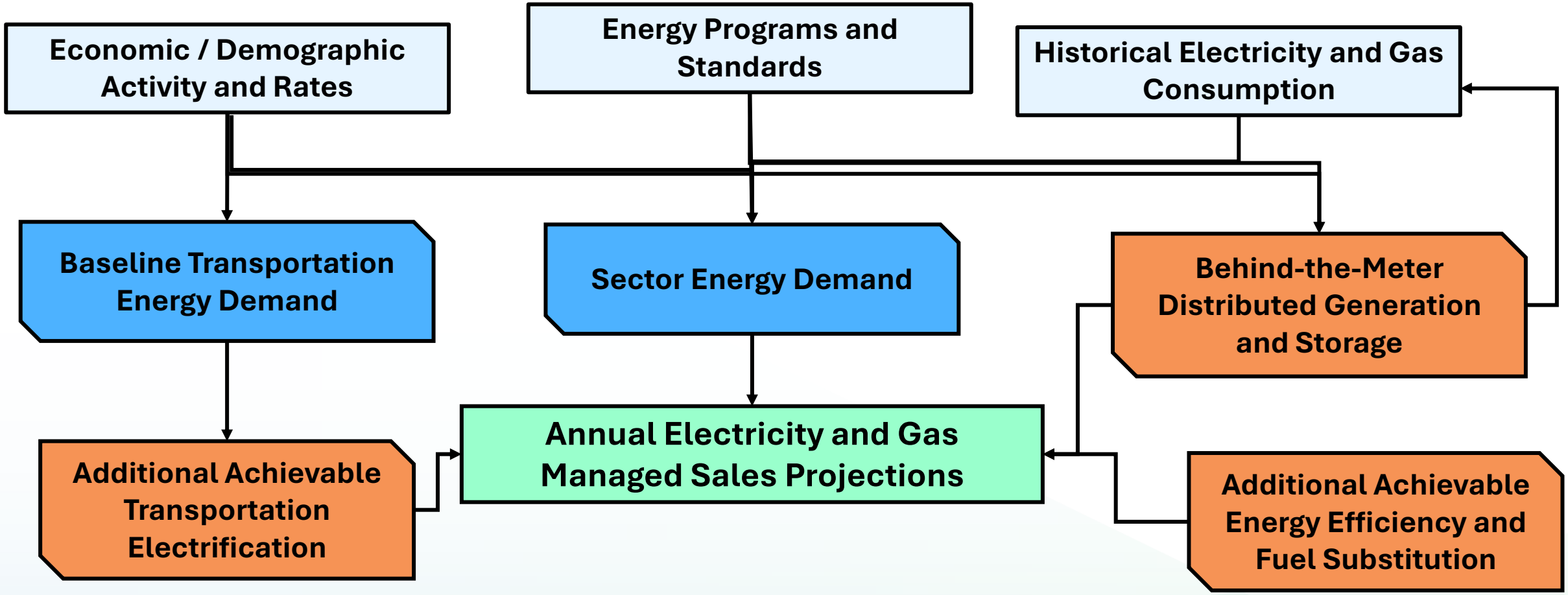
- Latest energy programs and standards estimates are provided to sector end use models
- BTM PV and storage projections consider Title 24 mandates for new construction

Energy Demand Model System (4)



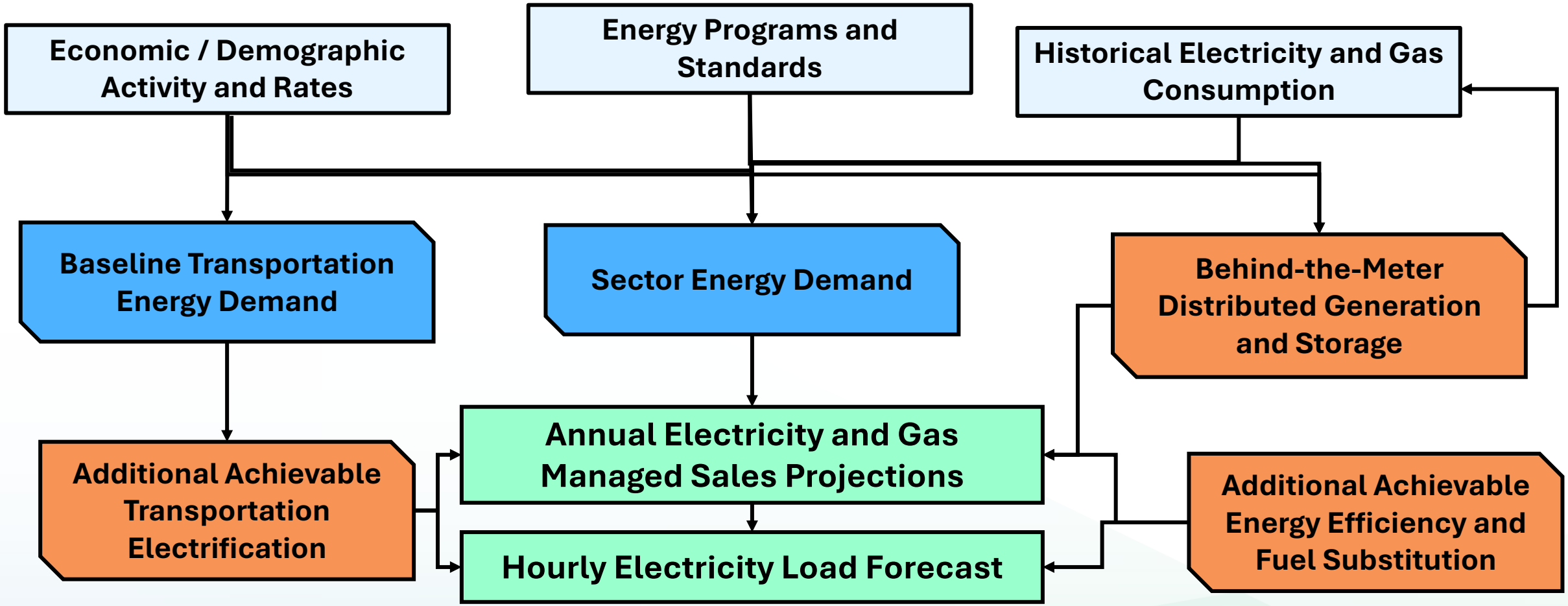
- Additional Achievable scenarios are developed for Energy Efficiency, Fuel Substitution, and Transportation Electrification

Energy Demand Model System (5)



- Load modifier results are combined with baseline consumption to create managed sales forecast scenarios

Energy Demand Model System (6)



- Electricity Results are fed into the hourly electricity load forecast
- Hourly load modifier profiles are integrated to create the managed hourly load forecast

2025 IEPR Forecast Status

Summary of Comments Received

- Consider new types of resources as load modifiers
- BTM PV and storage
- Data centers
- Selection of AAFS and AATE scenarios
- Utility energization application data (Known Loads)

Proposed Forecast Framework

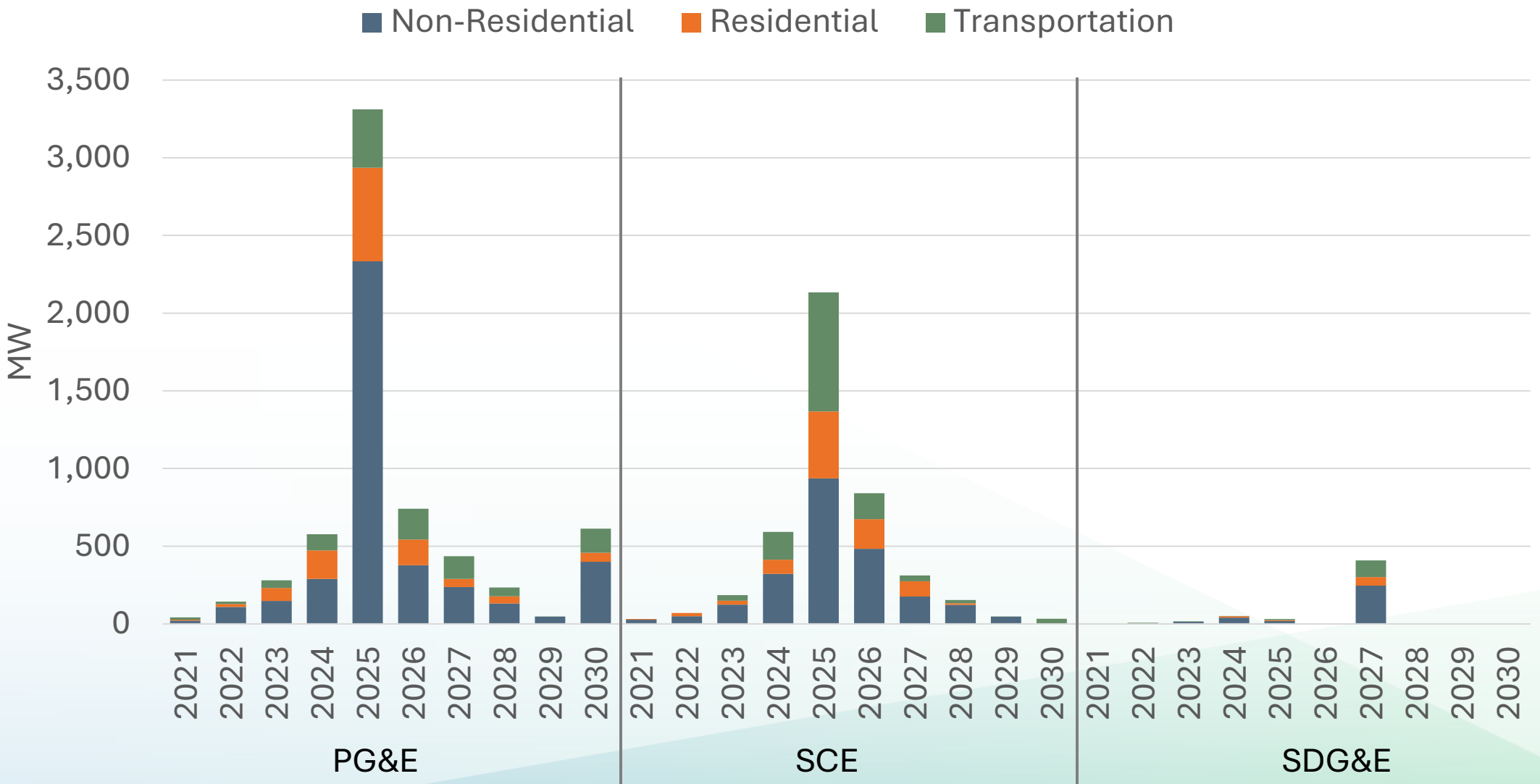
	Planning Forecast	Local Reliability
Economic, Demographic, and Price Scenarios	Baseline	Baseline
BTM PV and Storage	Mid	Low
Data Centers	Mid	High
Known Loads	TBD	Included
Additional Achievable Energy Efficiency Scenario	Scenario 3	Scenario 2
Additional Achievable Fuel Substitution Scenario	Scenario 2	Scenario 3
Additional Achievable Transportation Electrification Scenario	Scenario 2	Scenario 3

Utility Known Load Data

- Energization requests at the distribution system level, submitted to CPUC as part of distribution system planning in the High DER proceeding
- Project level data from each IOU (joint CEC-CPUC data request)
  - As of May 2025
  - Capacity
  - Customer sector
  - Energization date
  - Load profiles

- Examples:
  - apartment buildings
  - single family housing developments
  - warehouses
  - retail stores
  - medical facilities
  - schools and colleges
  - industrial facilities

Known Loads Capacity Requests



Source: CEC staff with data from the IOUs

Including Known Loads in the IEPR Forecast

Reasons to Include

- Reliability risks if not properly planned for:
  - Gap between transmission and distribution planning
  - Backlog of projects that exceed growth in the IEPR forecast

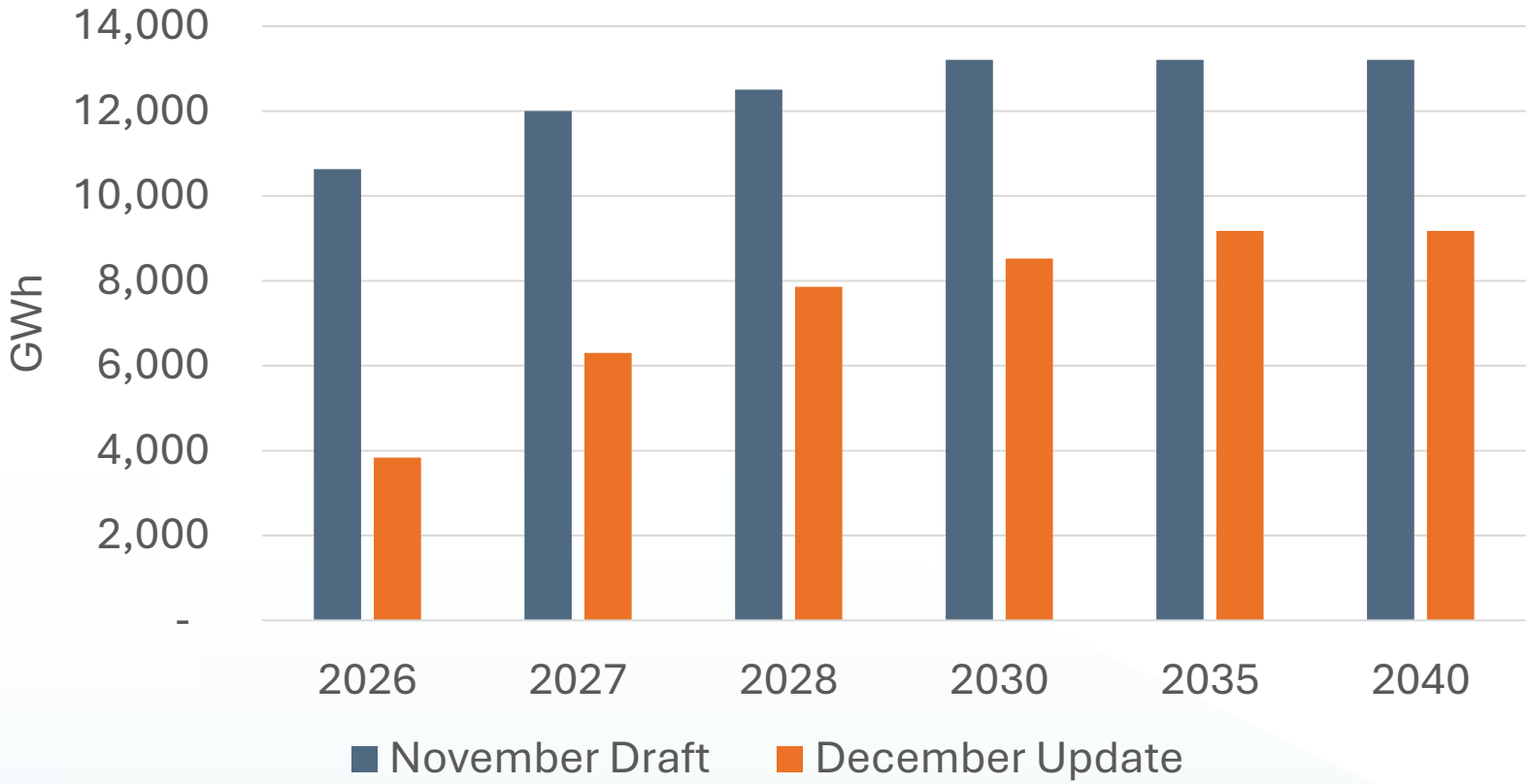
Considerations

- First year that CEC has used the known load data
- Lack of historical record
- Backlog is a unique circumstance
- Balance resource procurement obligations with grid planning

Known Load Assumptions

Assumption	Draft Projections (Shown Today)	Revisions for Final Forecast (In Progress)
Cancellation Rates	Based on August 2025 Grid Needs Assessments filing with CPUC	No change
Energization Date	Date provided in May dataset	• PG&E: use updated dates that align with DPP modeling • SCE: use updated dates from Aug filing • SDG&E: use updated dates from Aug filing
Ramp Rate	Ramp over a year	• PG&E: Ramp over 3 years • SCE: TBD • SDG&E: TBD
Utilization Factor	• PG&E: Calculated by analyzing AMI data for completed Known Loads projects • SCE: use adjustment provided by SCE • SDG&E: apply adjustment provided by SCE	• PG&E: use adjustment provided • SCE: no change • SDG&E: TBD

Preliminary Known Load Impacts from Updated Methodology for PG&E



Source: CEC staff

- Energization dates are not yet updated
- Removed 1,500 MW of data centers that were double counted
- Projects < 50 kW are discounted by 50%

Forecast Timeline

2025 IEPR Forecast Workshops and Meetings

Meeting Type	Topic	Date
IEPR Workshop	California's Economic Outlook	February 26
DAWG Meeting	Economic and Demographic Inputs and Data Center Forecasting	July 16
IEPR Workshop	Inputs and Assumptions	August 6
DAWG Meeting	Load Modifier Assumptions	August 18
IEPR Workshop	Load Modifier Scenario Updates	August 26
DAWG Meeting	Draft Load Modifier Results	October 30
IEPR Workshop	Draft Load Modifier Results	November 13
IEPR Workshop	**Draft Overall Forecast Results**	**December 17**
CEC Business Meeting	**Forecast Adoption**	**January 21, 2026**

2025 IEPR Workshops

2025 DAWG Meetings

Forecast Area	July 16	Aug 18	Oct 30
Economic / Demographic Inputs	X		
Transportation		X	X
Additional Achievable Fuel Substitution		X	X
Behind-the-Meter Distributed Generation		X	X
Data Centers	X	X	X
Known Loads	X		X

Demand Analysis Working Group (DAWG)

Next Steps

- Review and consider comments and feedback on the forecast
- Jan 9, 2026: Post final forecast results
- Jan 21, 2026: CEC Business Meeting – propose final forecast results for adoption

- LSE and BAA Tables
  - January: DAWG meeting to review forms with LSEs
  - February: Post LSE and BAA tables