



California Energy Commission

California Energy Demand Forecast Introduction

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Today's Workshop Goals

1. Present components of the 2021 California Energy Demand Forecast and solicit feedback

- Additional Achievable Energy Efficiency and Fuel Substitution
- Transportation Energy Demand

The overall energy consumption, sales, and peak forecast results will be presented on December 16

2. Provide an overview of the demand scenarios project and framework



Energy Demand Forecast Timeline

- Draft IEPR published for public comment
 - Will not contain forecast results
- Overall Energy Consumption, Sales, and Peak Demand Forecast Results – Dec 16 IEPR workshop
- Forecast results posted – Jan 2022
- Final IEPR posted and adopted - Feb 2022



Why do we forecast demand?

Warren-Alquist Act

Established the CEC

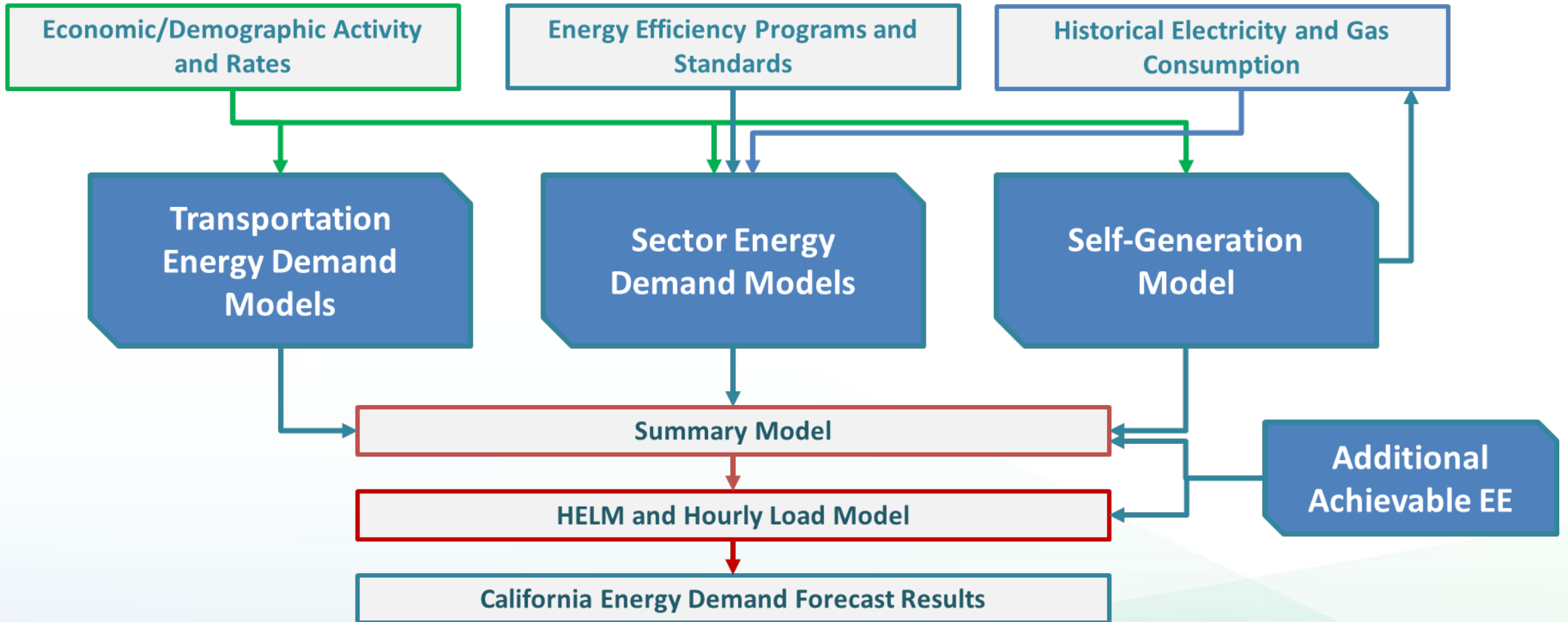
Public Resources Code 25301(a)

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





Energy Demand Model System





Energy Demand Cases

Mid Energy Demand

- “Likely” demand case assumptions

High Energy Demand

- Higher econ/demo projections
- Higher impacts from climate change
- Lower energy rates
- Higher vehicle electrification
- Lower self-generation adoption

Low Energy Demand

- Lower econ/demo projections
- No additional climate change impacts
- Higher energy rates
- Lower vehicle electrification
- Higher self-generation adoption



2021 Forecast Key Updates

- Updated Economic and Demographic Projections
- Additional Achievable Energy Efficiency and Fuel Substitution
 - Updated potential savings projections
 - Added AAFS for better accounting for higher building electrification projections
- Transportation
 - Uses the 2019 CA Vehicle Survey data
 - Updated incentives and vehicle attributes
- Self-Generation
 - Updated incentives
 - Incorporate commercial building code adopted in Aug 2021



Previous Workshops / DAWG Meetings on Inputs, Assumptions, and Methodology

Forecast Area	May 5 DAWG	June 23 DAWG	July 15 DAWG	Aug 5 IEPR Workshop	Sept 9 DAWG	Sept 14 DAWG	Sept 30 DAWG
Economic and demographic data				X			
Electricity rates		X		X			X
Self-generation							X
Transportation	X		X	X		X	
Additional Achievable Energy Efficiency and Fuel Substitution		X		X	X		
Climate change				X			X
Weather-normal loads							X

[Link to DAWG Meetings](#)

[Link to IEPR Workshops](#)



Beyond the Forecast – Demand Scenarios

- Planning to meet the state’s GHG reduction goals creates increased uncertainty in the forecast
- Demand scenario project is under way to adapt forecast methods to:
 - Extend models out to 2050
 - Assess energy demand impacts under different GHG reduction strategies



Thank You

