



# Integrated Resource Planning: Overview

Contractor: Siemens Energy Business Advisory

January 22, 2020



# Agenda



- IRP Background
- Overview of Joint IRP Analysis
- Approach to Modeling and Analysis Assumptions
- Deliverables
- Timeline for Board Updates & Actions
- Discussion & Questions

# Background

- **California statute requires all load-serving entities to prepare IRPs**
  - Each CCA, as well as each IOU and ESP, is required to file its IRP with the CPUC on a biennial basis (2-year cycle)
  - First year of cycle: CPUC develops a Reference System Portfolio (RSP) – used in the CAISO Transmission Planning Process and in LSE IRPs
  - Second year of cycle: LSEs file IRPs at the CPUC; CPUC aggregates, evaluates, and uses IRPs to form a recommended Preferred System Portfolio (PSP)
- **First IRPs were due in 2018; next IRPs are due May 1, 2020. Takeaways from last time:**
  - IRPs were developed as individual plans but with no understanding of the collective impact of plans
  - By planning jointly, CCAs can understand if any reliance on resources in their plan is duplicative, to avoid this situation
  - Joint IRP planning may also highlight opportunities for future joint procurement
  - Additional detailed modeling may supplement the information developed by the CPUC

# Joint IRP Project Objectives

- **Questions we seek to answer:**
  - What is the ideal mix of resources for each party to achieve the goals of both the state and its own goals?
  - How much renewable energy and flex capacity is needed to achieve each LSE's renewable targets?
- **Create a joint Integrated Resource Plan (IRP) reference portfolio for the CCAs; this IRP will:**
  - Conform with the CPUC reference case
  - Meet CPUC required inputs and regulations
  - At a later time, achieve additional priorities and goals of the CCAs
- **Potentially develop a second preferred joint portfolio to achieve CCA objectives while managing risk and cost**
- **Prepare disaggregated IRP information and report for each CCA**

# Joint CCA Goals for 2020 IRP

1. Identify cost-effective, feasible, reliable, equitable and robust options to achieve our respective communities' goals and objectives, and to minimize carbon emissions
2. Inform and engage stakeholders in the IRP process
3. Allow the IRP process to inform the selection of a preferred portfolio
4. Use one model for consistency in optimization, simulated dispatch, and probabilistic functions
5. Test a range of portfolios in scenario modeling and ultimately in risk analysis
6. Meet CPUC requirements
7. Timely obtain necessary Board and Council approvals

# Deliverables

## Phase 1: CPUC IRP Compliance Filing

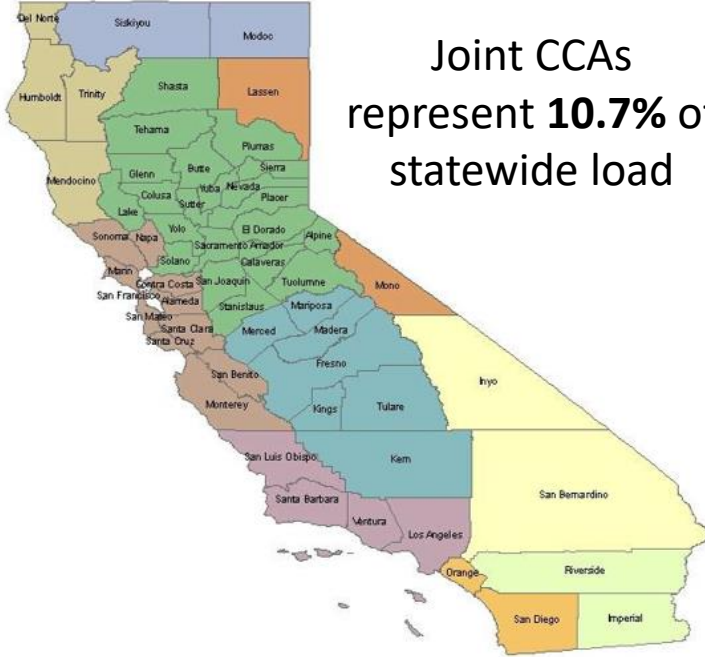
- Analysis based on prescriptive assumptions
- Narrative – analysis, process, results, lessons learned
- Resource Data – conforming & “preferred” portfolios
- Clean System Power Calculator

## Phase 2: Establish EBCE Organizational Goals

- Additional analysis
- Identify reliability needs
- Define trade-offs between organizational objectives
- Inform procurement recommendations
- Develop path to expedited GHG reduction

# Load & Load Modifiers

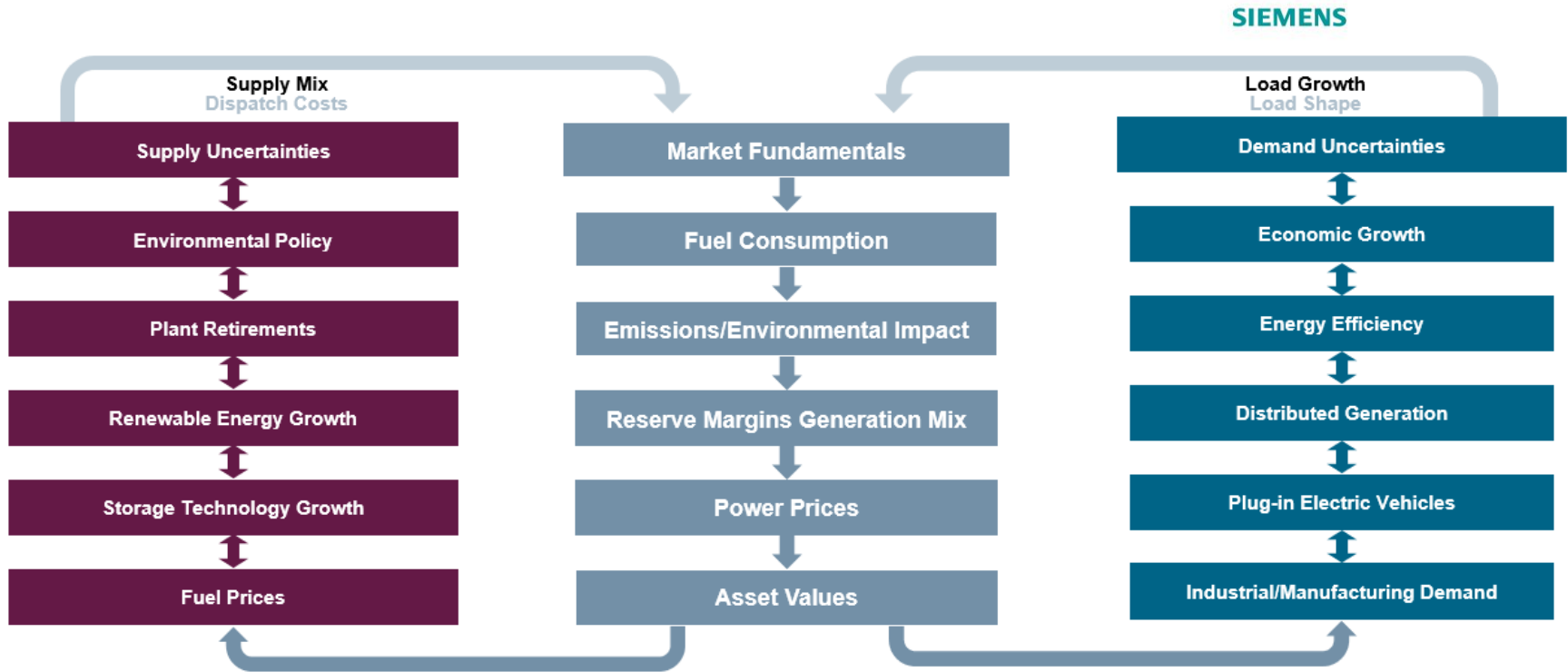
Joint CCAs  
represent **10.7%** of  
statewide load



## Required Forecast: IEPR

- Includes a long-term forecast for customer programs:
  - Energy efficiency
  - Demand response
  - EV penetration
  - BTM generation

# Key Market Drivers





# Approx. Timeline for Updates & Actions

Date	Description	Action
Jan 22, 2020	Discuss: IRP Overview & Discussion of Process	Informational only
Feb, 2020	Discuss: Siemens' Preliminary Results	Informational only
Mar, 2020	Discuss: Phase 1 Final Results & Draft IRP Filing	Target Board approval
Apr, 2020	Deadline for Approval of Phase 1, IRP Filing	Board approval required
May 1, 2020*	IRP Filing Due Date for Compliance	CPUC Deadline
Jul, 2020	Present EBCE Organizational Goals	Discussion; Board approval
Fall, 2020	CPUC Reviews & Aggregates Filings	n/a
End of 2020	CPUC Issues Supplemental Procurement	n/a
End of 2020	Update on state-wide results	Informational only

# Discussion and Questions

