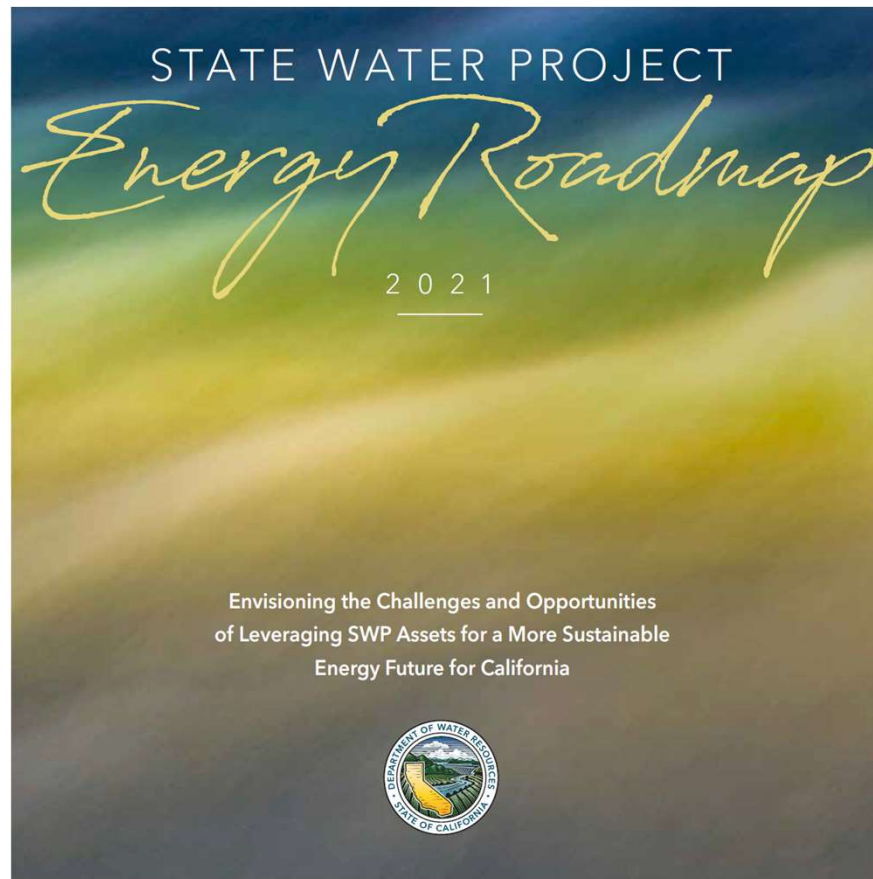


# AVSWCA Presentation June 8, 2023

- **Jonathan Young, Energy Manager**
- **[jyoung@swc.org](mailto:jyoung@swc.org) | (279) 999-6020**



# DWR / SWC Energy Roadmap



# Why do we need the Energy Roadmap?

Variability of SWP Pump Load

California clean energy policies

Changing resource mix

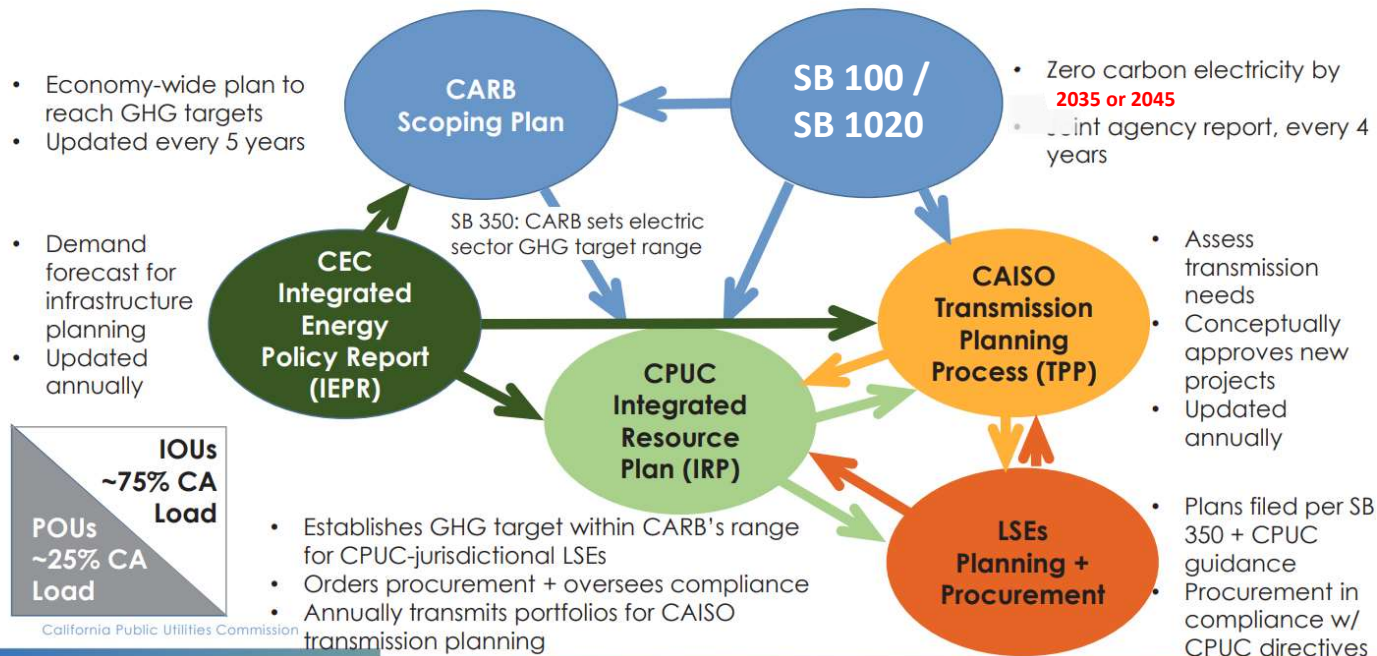
Rising energy costs

Ensure DWR / SWC are on the same page



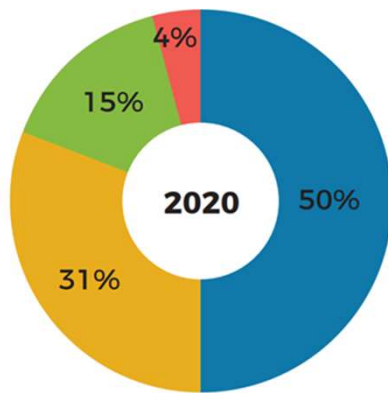
# California's Clean Energy Policies

## California's Electricity Planning Ecosystem

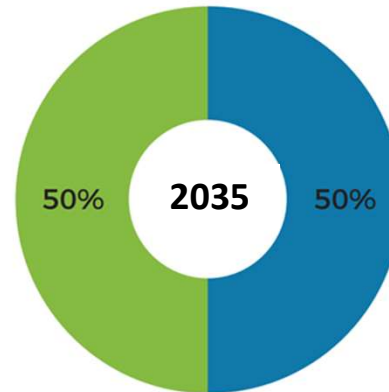


# California's Clean Energy Policies

## STATE WATER PROJECT POWER PORTFOLIO



65% emissions free resources



100% emissions free resources

■ Large Hydro   ■ Market Purchases   ■ Contracted Renewables   ■ Fossil Fuels



# CAISO's Proposed Major Transmission Development Pathways

ES-1: Illustrative Diagram of Transmission Development



# Core Values

Ensure a reliable State Water Project - No impacts to water deliveries

Build on successful past collaborative efforts

Clear responsibilities and authorities

Leverage expertise

Transparency

Cost effective power portfolio



# What have we done so far?

Continue work on SB 49 / Flexible Resources Study

Identify threats to current and future operations of the SWP

Seek State / Federal Funding

Partner with DWR to discuss water demand flexibility





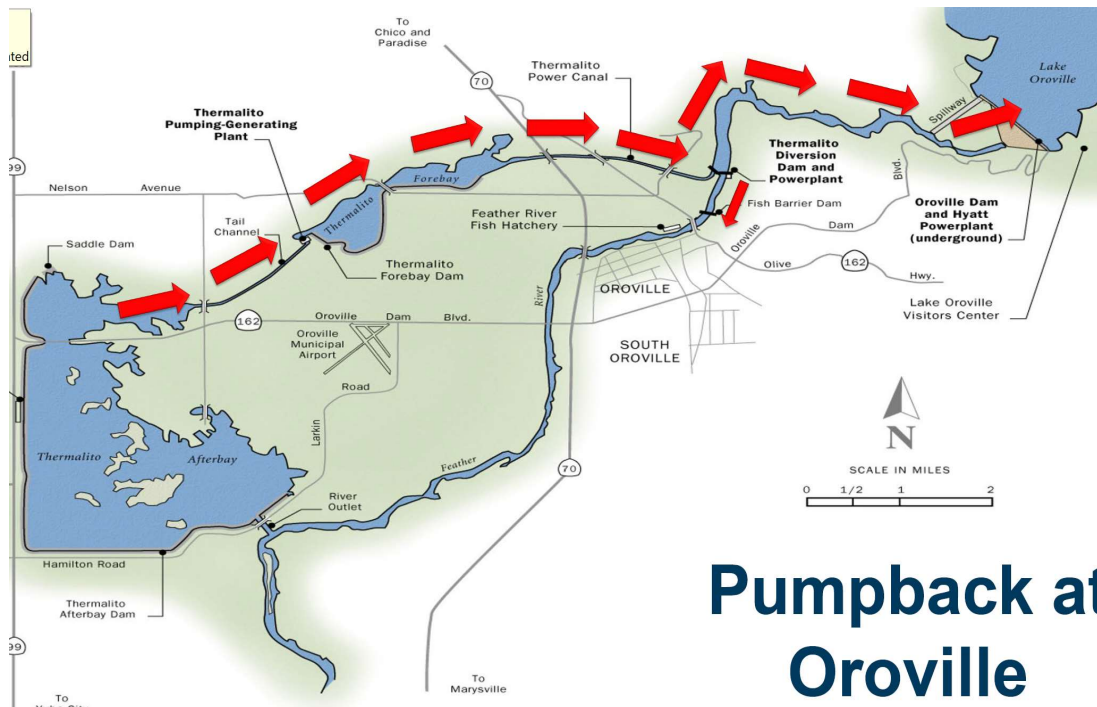
# Funding for pump back operations at Oroville



## Release at Oroville



# Funding for pump back operations at Oroville



## Pumpback at Oroville



# SB 1020 - Clean Energy, Jobs, and Affordability Act of 2022 Introduced

## State Water Project:

Meet 100% of load with clean energy by 2030

New clean energy resources

In California

In front of the meter and dispatchable by CAISO

Maximize long-term employment, new economic activity, generate local and state tax revenues, and assist with the development of new industries.

**\$2.6  
Billion**



## DWR:

100% clean energy for state agencies by 2030

Procuring agent for all state agencies

Allow utilities to subscribe to projects

# SB 1020 - Clean Energy, Jobs, and Affordability Act of 2022 **Chaptered**

## State Water Project:

Meet 100% of load with clean energy by ~~2030~~ 2035

New clean energy resources

~~In California~~

~~In front of the meter and dispatchable by CAISO~~

Maximize long-term employment, new economic activity, generate local and state tax revenues, and assist with the development of new industries.

**Force Majeure Provision**

**Early Termination of Existing Resources to 2040**

**DWR:**

~~100% clean energy for state agencies by 2030~~

~~Procuring agent for all state agencies~~

~~Allow utilities to subscribe to projects~~

**\$1.2  
Billion**



# Offsetting the impact

## Secure funding:

State

Federal

Bond

## Operational Changes:

Explore clean energy resources behind the meter

Work with DWR to understand SWP load profile and CAISO market emissions

Look at potential CAISO market changes to reduce costs/increase revenues





# Questions

# RPS vs. Zero Carbon

## **Renewable Portfolio Standards (RPS)**

Solar

Solar Thermal

Onshore Wind

Offshore Wind

Geothermal

Bioenergy

Fuel cells (green hydrogen)

Small hydro (existing)

## **Zero Carbon**

Large Hydro (existing)

Nuclear (existing)

Green Hydrogen /  
biomethane

Natural Gas with carbon  
capture

