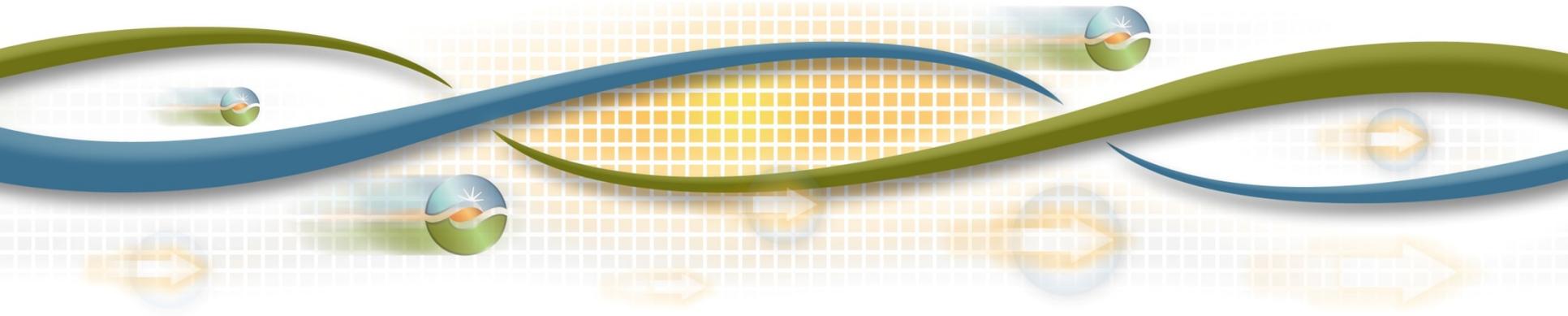




SB 350 and Regional Integration

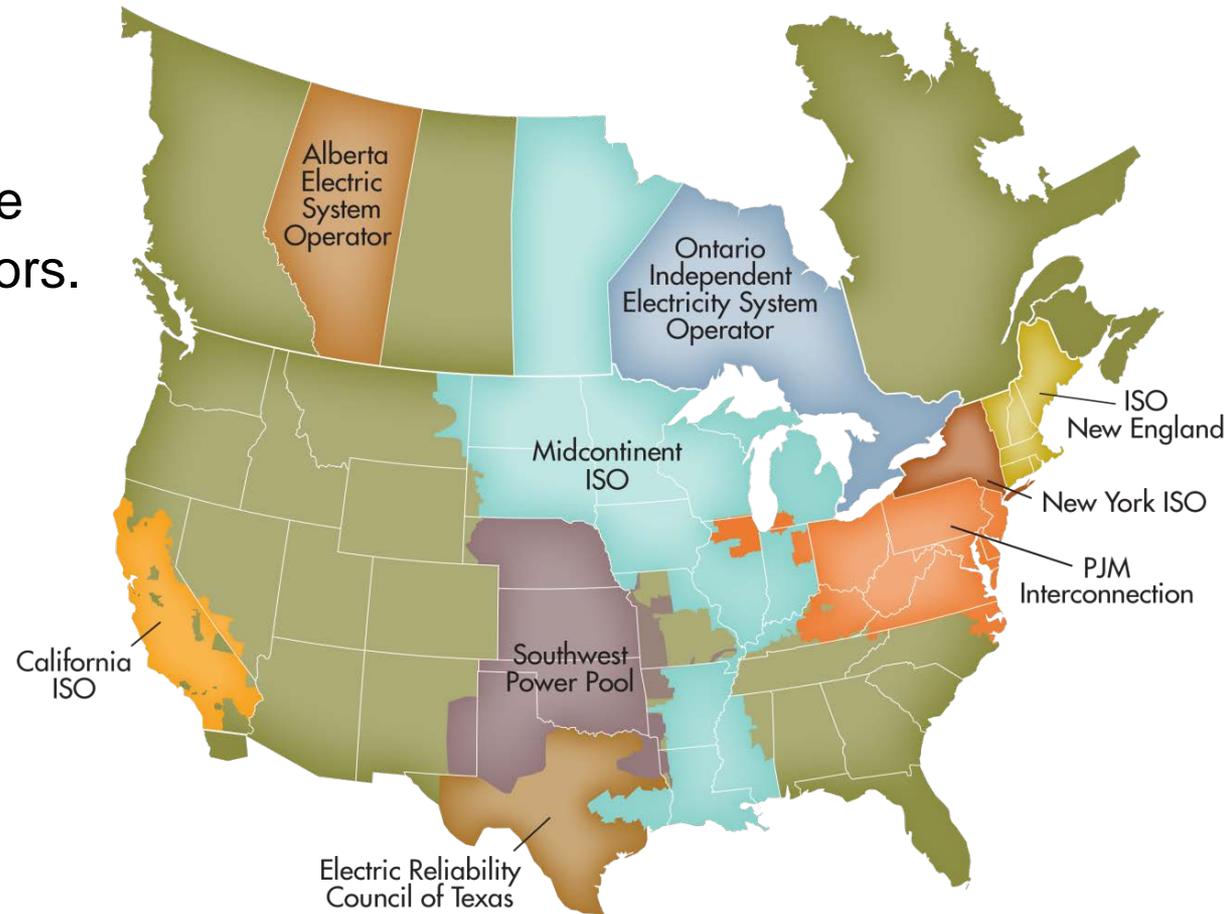
Phil Pettingill
Director, Regional Integration

December 7, 2015

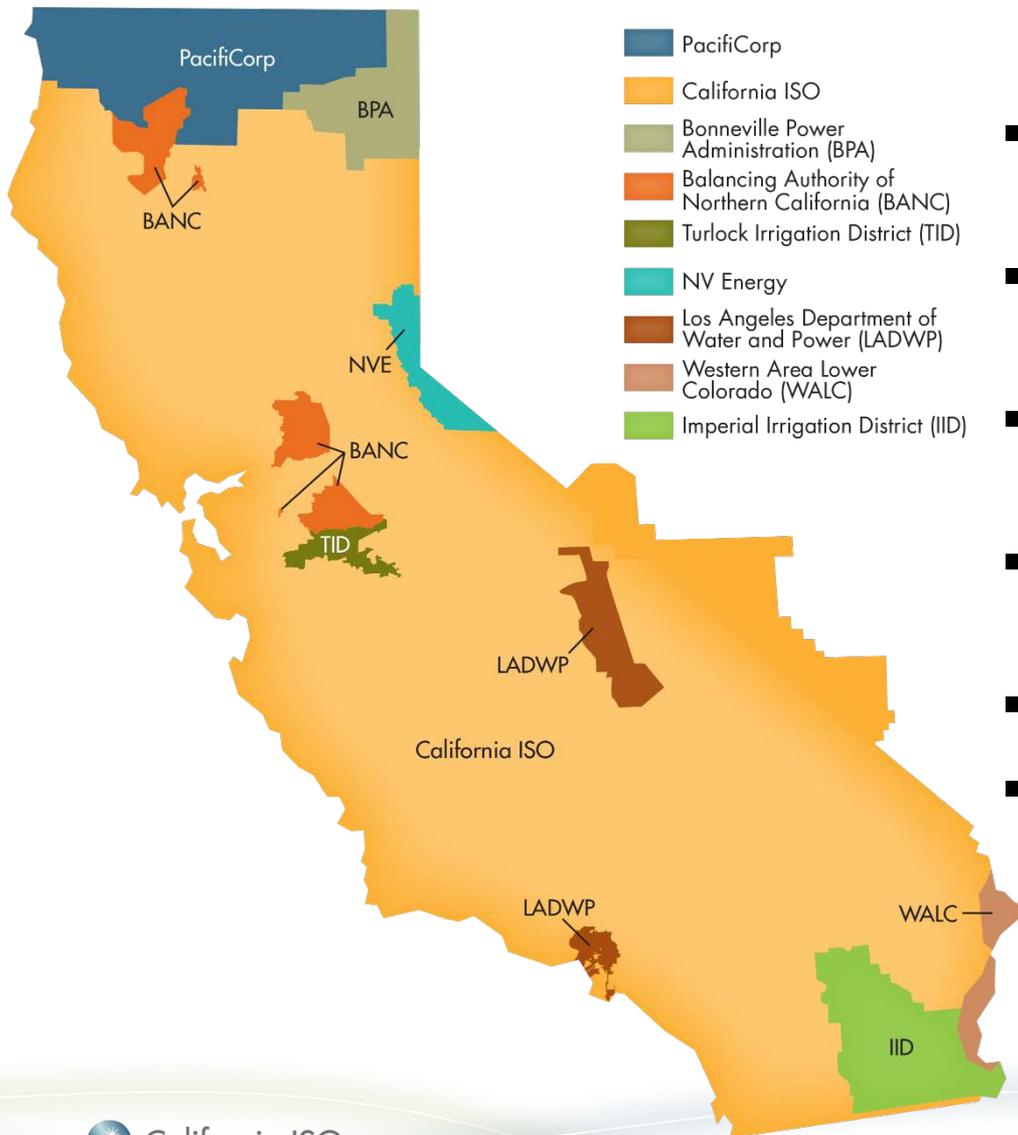


The California ISO is one of nine independent system operators in North America

Two-thirds of the United States is served by these independent grid operators.



California ISO by the numbers



- **65,300** MW of power plant capacity (net dependable capacity)
- **50,270** MW record peak demand (July 24, 2006)
- **27,500** market transactions per day
- **26,000** circuit-miles of transmission lines
- **30 million** people served
- **235 million** megawatt-hours of electricity delivered annually

What does the ISO do?

Reliability

System
operations

Outage
Coordination

Emergency
Response

Markets

Utilize advanced
technologies

Optimized energy
dispatch for California
and participating
states in the West

Scheduling energy
with neighboring
balancing authorities

Procurement of
operating reserves

System Planning

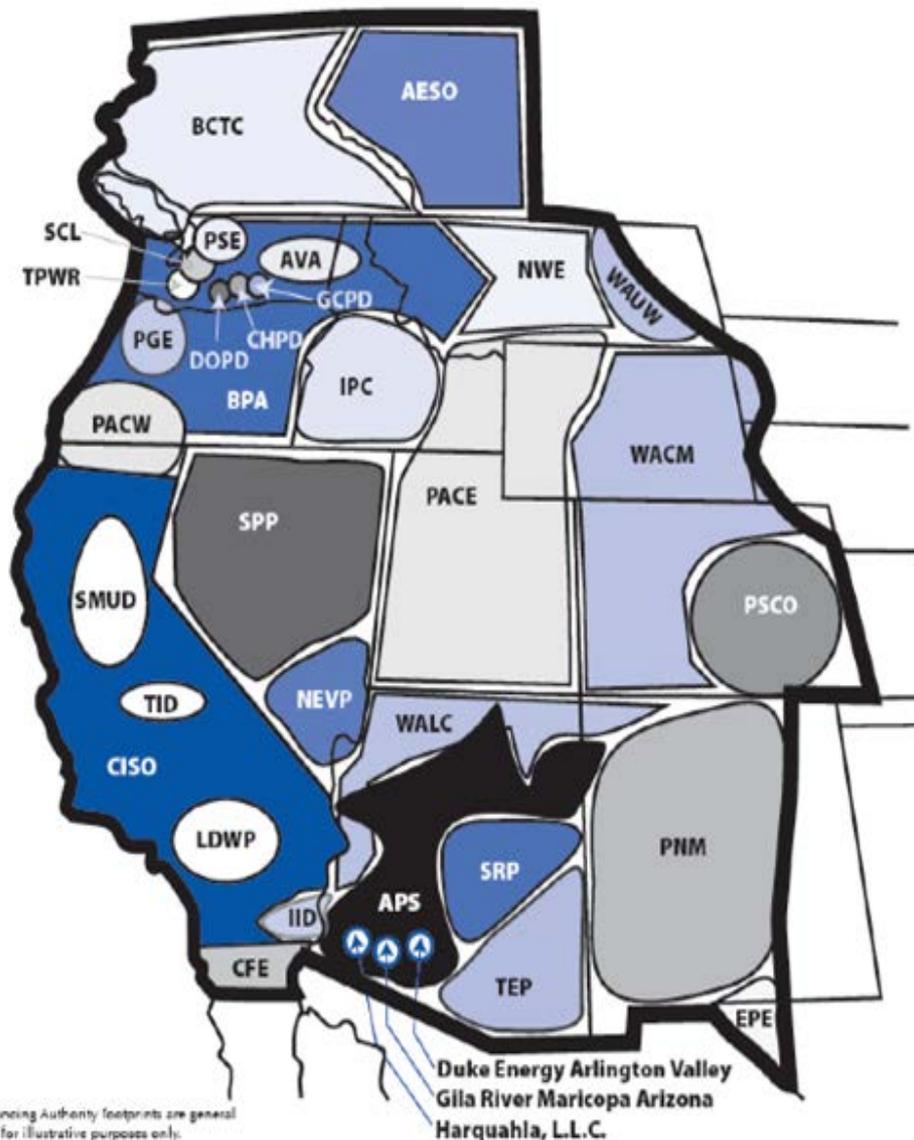
Transmission
planning

Interconnection
studies and
process

Renewable
integration
studies

The western grid

- The ISO is the largest of about 38 balancing authorities in the Western Interconnection, handling an estimated 35 percent of the electric load in the West.
- A balancing authority is responsible for operating a transmission control area.
- It matches generation with load and maintains electric frequency of the grid.



A regional ISO has significant potential benefits

- Economies of scale could reduce
 - Green house gas emissions
 - Energy costs
 - Fuel procurement costs
 - Oversupply of renewable energy
 - Peak capacity needs
- Enhanced reliability
- Improve market pricing transparency and liquidity

SB 350: Clean Energy and Pollution Reduction Act of 2015

- By 2030, double energy efficiency for electricity and natural gas by retail customers
- 50% Renewable Portfolio Standard (RPS) by 2030
- Process for the ISO to transform into a regional organization



SB 350 requires the ISO to conduct studies of the impacts of a regional market

Studies will determine the overall benefits to ratepayers including:

- The creation and retention of jobs and other benefits to the California economy
- Environmental impacts in California and elsewhere
- Impacts in disadvantaged communities
- Emissions of greenhouse gases and other air pollutants
- Reliability and integration of renewable energy resources.

Study plan includes regular public outreach

Activity	Schedule
Governor signs SB 350	October 7, 2015
ISO assembles team	October 2015
Develop study assumptions and methodologies	November 2015 – December 2015
Seek input on study methodologies and share preliminary results	January - February 2016
Conduct stakeholder outreach and studies	January - March 2016
Studies and governance proposal presented at CPUC hosted public workshop with multi-agency participation (CARB, CEC, CAISO)	April 1, 2016 – June 1, 2016
Studies and governance proposal presented to Governor's office	July 2016