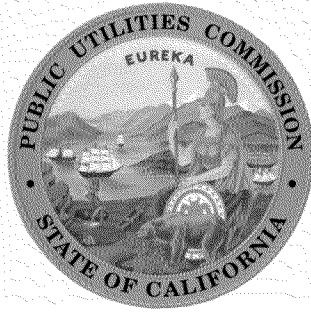


Kenyan Ministry of Energy and U.S. Department of Energy Visit  
to  
National Association of Regulatory Commissioners

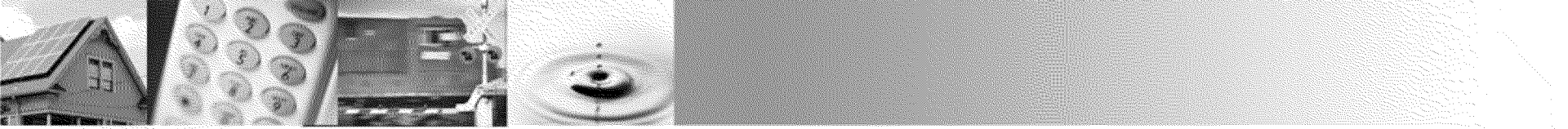


**Legal/Regulatory Structures for Investors**

**Commissioner Timothy Alan Simon**  
**California Public Utilities Commission**  
**Chair, NARUC Committee on Gas**

**November 28, 2012**





## Commissioner Timothy Alan Simon: Biography

Timothy Alan Simon is one of five members of the California Public Utilities Commission, which oversees investor-owned utilities in the electric, gas, communications, water, and transportation sectors. Commissioner Simon also sits on the National Petroleum Council, an oil and gas advisory committee to the Secretary of the Department of Energy (DOE). He serves as an Adjunct Professor in Securities Regulation at the Golden Gate University School of Law in San Francisco.

Prior to joining the Commission in 2007, he served as Governor Arnold Schwarzenegger's Appointments Secretary, the first African American in California history to serve in that capacity. Earlier in his career, he worked in the private sector as a securities and banking attorney specializing in financial products and services.

Commissioner Simon received a Bachelor's degree in Economics from the University of San Francisco, and a Juris Doctor from Hastings College of the Law, University of California.





# About CPUC

Californians spend more than \$59 billion annually for services from industries regulated by the CPUC.

Headquartered in San Francisco with offices in Los Angeles and Sacramento.

1,000 Employees: Including Engineers, Analysts, Lawyers, Auditors, Support

Five Governor-appointed Commissioners serve staggered six-year terms:

The CPUC serves the public interest by protecting consumers and ensuring the provision of safe, reliable utility service and infrastructure at reasonable rates, with a commitment to environmental enhancement and a healthy California economy. We regulate utility services (energy, communications, consumer protection and safety, passenger transportation, rail safety, water), stimulate innovation, and promote competitive markets, where possible, in the communications, energy, transportation, and water industries.

3

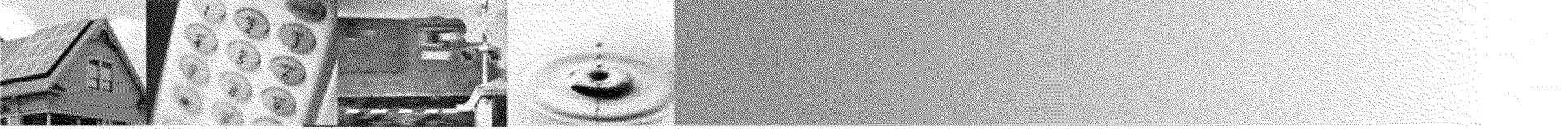




# Overview of CPUC Energy Oversight

- The CPUC regulates the investor-owned electric and gas utilities in California that collectively serve over two-thirds of total electricity demand and over three-quarters of natural gas demand throughout California.
- Through its oversight of these utilities, the CPUC has played a key role in making California a national and international leader on a number of energy related initiatives designed to benefit consumers, protect the environment, and support California's economy.
- The CPUC develops and administers energy policy and programs to serve the public interest and ensures compliance with decisions and statutory mandates. The CPUC staff provides objective and expert analyses that promote reliable, safe, and environmentally sound energy services at lowest reasonable rates for the people of California.

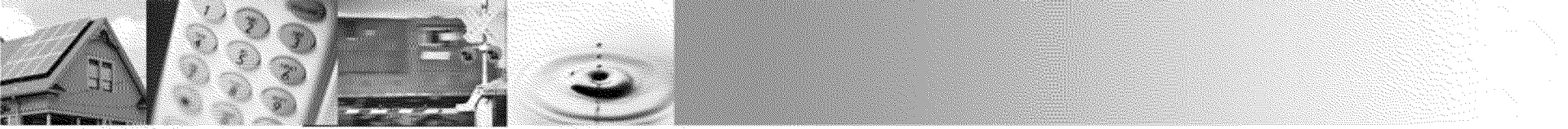




# Investors Need Regulatory Certainty

- By bolstering investors' confidence in the marketplace, regulation can help companies raise capital. But we need to pay attention if new rules impose costs that exceed their benefits.
- In California investors like long-term procurement contracts that we require our utilities as these provide certainty.
- Generation owners prefer contracts signed for the asset life.
- Resource Adequacy (as opposed to Long Term 10-15 years) proceedings by design provide a forward looking annual procurement mechanism and certainty.





# California Electric Procurement

I will provide an overview of the California perspective on how long-term contracts are structured and issues related to our electric procurement process that provide a framework for investors.





# California Restructuring Market

California no longer has a traditional vertically integrated utility model (still present in many U.S. states).

California restructured its electricity industry in 1996. Vertically integrated utilities were unbundled and most of their generation assets were divested. A wholesale power exchange (PX) was established (and eliminated due to 200-2001 energy crisis) as the sole medium of trading electricity and California ISO was established to dispatch electricity. Today in the absence of PX market, electricity trading also takes place at the CAISO market.

California is considered a hybrid market where there is wholesale competition in the California ISO market but California's retail choice has not advanced like fully restructured market of Texas or New York.





## State of California

- 38 million people in California
- Over 7 million in the SF Bay Area
- 26 million live in Southern California
- Nearly 10 million live in Los Angeles County
- Los Angeles County has a population larger than 42 other states
- Vast geographic climate, linguistic, cultural, economic diversity
- Rural areas the size of the State of Kentucky
- Rural population the size of the State of Vermont

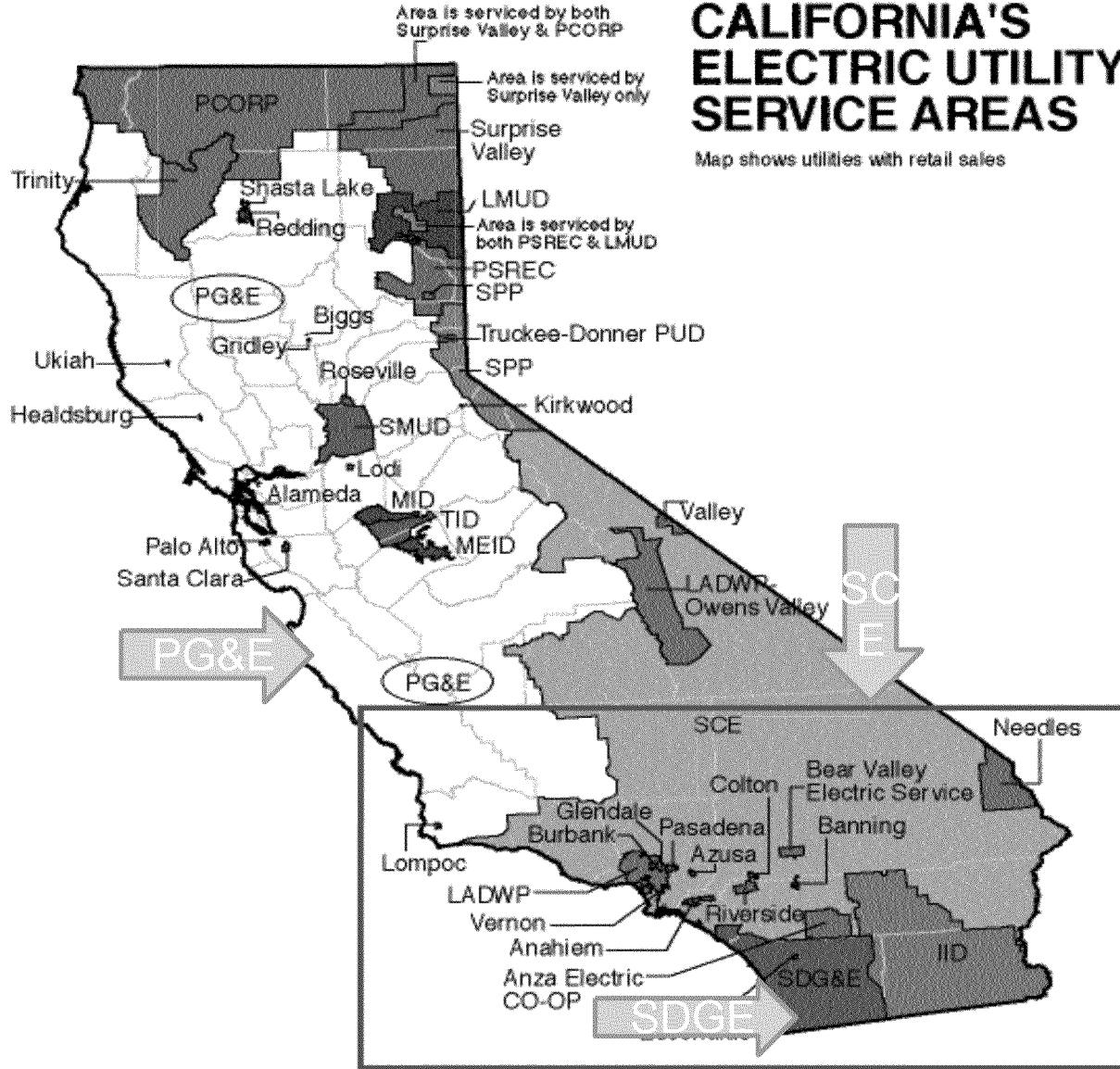






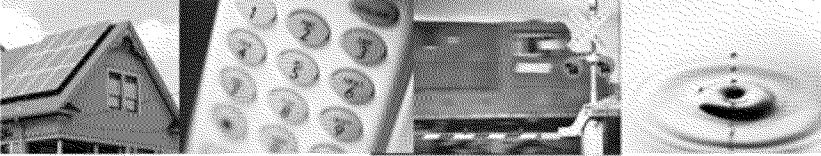
# CALIFORNIA'S ELECTRIC UTILITY SERVICE AREAS

Map shows utilities with retail sales



Click in area for enlarged view of Southern California

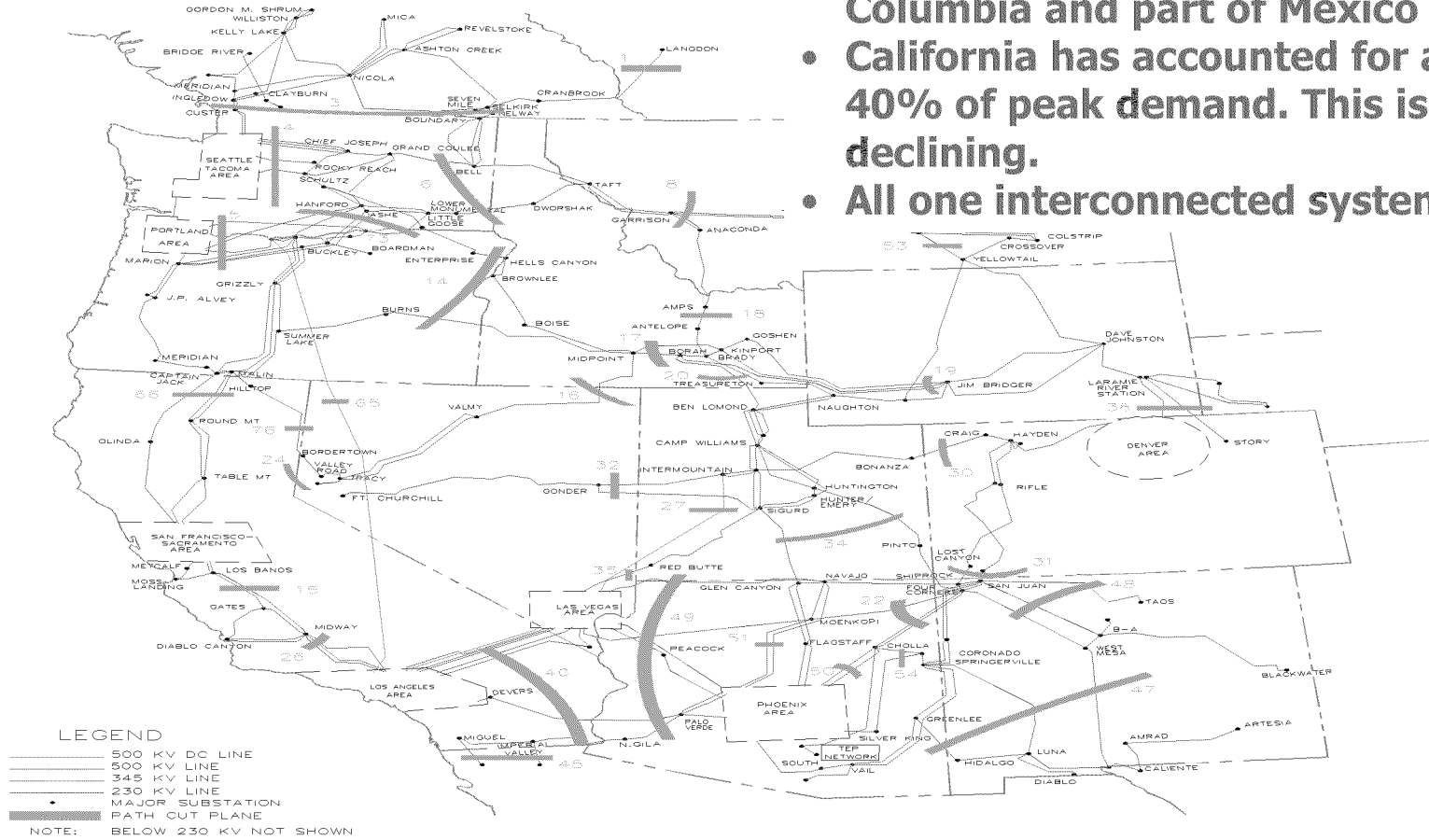




# Overview of the Western Interconnection

California dependent on imports to help meet peak demand

- Includes 14 western states, British Columbia and part of Mexico
- California has accounted for almost 40% of peak demand. This is declining.
- All one interconnected system





# California Electricity Regulatory Structure

	Jurisdiction	Regulatory Status
Generation	Federal, except State governs purchase decisions	Partially deregulated (hybrid)
Transmission	Federal, except in case of local public utilities	Regulated
Distribution	State	Regulated
Retail delivery	State	Partially deregulated





## 3 Main Components of California's Investor Owned Utilities Electric Procurement

- **System Needs**
  - Authorizes new resources to maintain system reliability
- **Bundled Procurement Plans**
  - Establishing rules for individual IOU procurement plans (e.g. risk management, product limits, authorizations)
- **General Rules**
  - Adopts generic rules on broad policies that are then refined in bundled plans (e.g. convergence bidding)





# Procurement Goal

- Informed policy on Long Term Procurement Plan
  - *Accuracy*
    - Identifies and addresses uncertainty
  - *Timeliness*
    - Avoids “just in time” procurement
  - *Maintaining grid reliability*
    - Correctly assesses resources given uncertainty



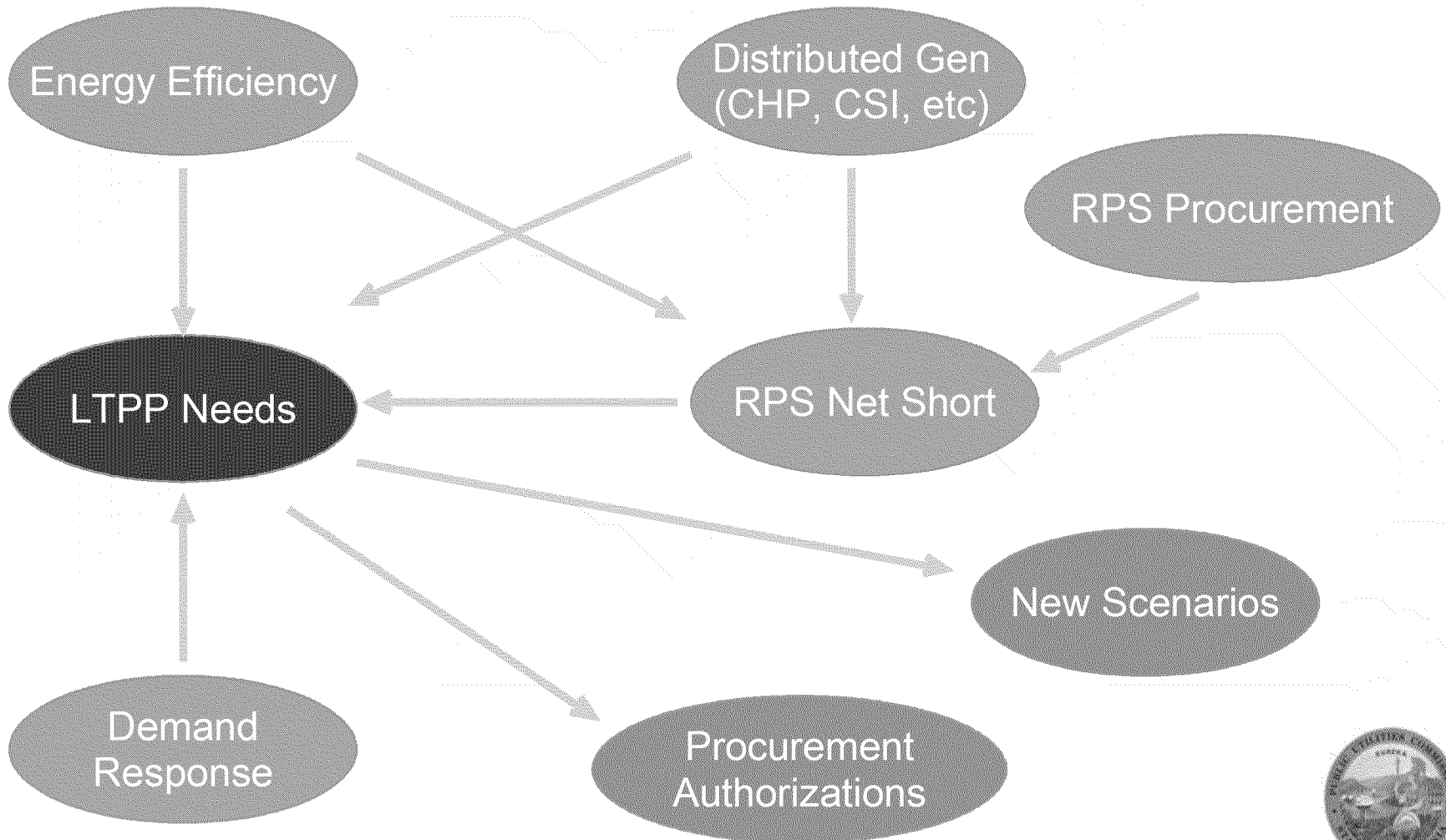


# Attaining Goals

- Past LTPPs looked forward 10 years to identify system resource needs
  - Local areas (Bay Area, LA Basin, etc)
  - Renewable integration (flexible resources)
  - System needs (planning reserve margin)
- Alternative futures
  - Scenario planning (e.g. renewable portfolios, sensitivities)
  - Overall demand and supply (Changing amounts of resources [e.g. energy efficiency])
  - Transmission

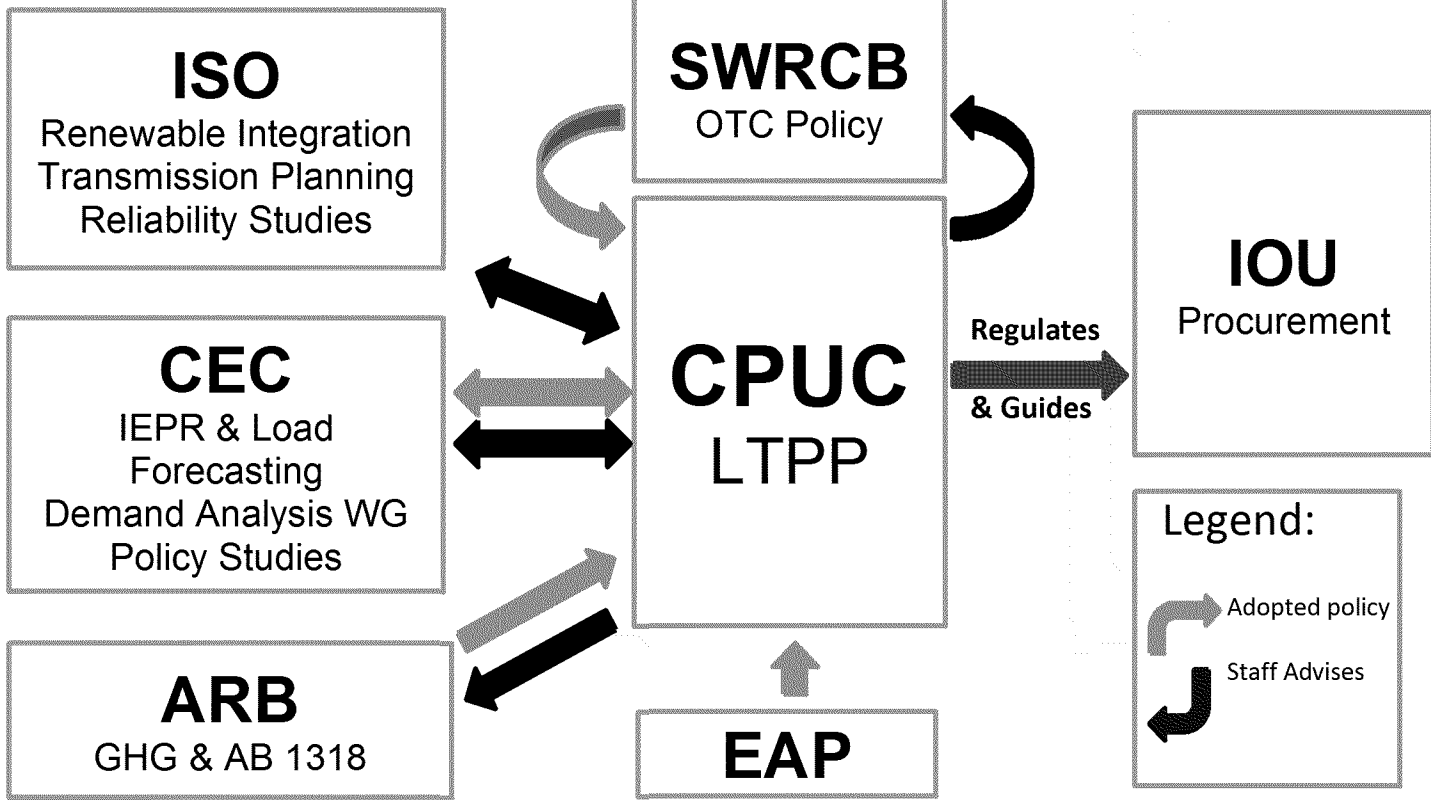


# Connected Feedback Loops





**Long Term Procurement Plan :  
Coordinating State Policy**



Air Resource Board (ARB), California Energy Commission (CEC), Energy Action Plan (EAP), Investor Owned Utility (IOU), CA Independent System Operator (ISO), Long Term Procurement Proceeding (LTPP), Once-through-Cooling (OTC), and State Water Resources Control Board (SWTCB).



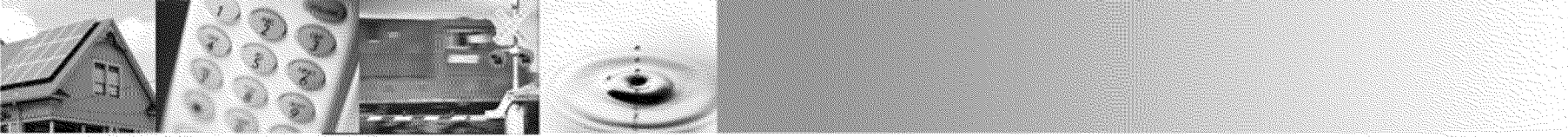




# Perspective

- CAISO System has approximately 70,000 MW of resources and 50,000 MW of peak demand
- A 1% error on either side leads to a shortfall of approximately:
  - 600 MW = large combined-cycle power plant  
= \$1 billion in capital costs

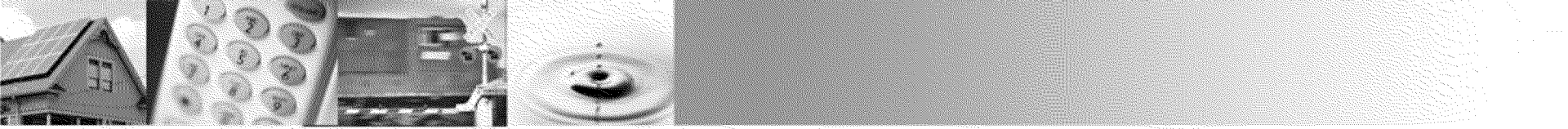




# Major Issues Under Consideration

- Local area reliability
- Once-through cooled power plants
- Nuclear power plants
- Renewable integration
- System reliability
- Renewable futures & Transmission
- Utility Energy Efficiency Incentive Mechanism





# Return on Equity and Cost of Capital

Recorded vs. Authorized Rate of Return (RORs) and Return on Equity (ROEs) (Averages for 2001-2010)

Year	Recorded ROR	Recorded ROE	Authorized ROR	Authorized ROE
PG&E	8.81%	11.20%	8.87%	11.29%
SCE	8.97	11.24	9.13	11.55
SDG&E	8.21	11.07	8.48	10.69
SoCalGas	10.36	13.49	8.75	10.89

Currently CPUC has a Cost of Capital proceeding that will determine the current cycle figures.





# Conclusion

Despite California having Long Term Procurement Plan there are concerns

- Flexible Ramping
- Who should pay for Green House Gas Allowance (California just had its first Cap and Trade Auction raising \$290 million and allowances went for \$10.09/ton)
- Environmental requirements for transmission, solar and wind projects





**Thank you!**  
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**www.cpuc.ca.gov**

