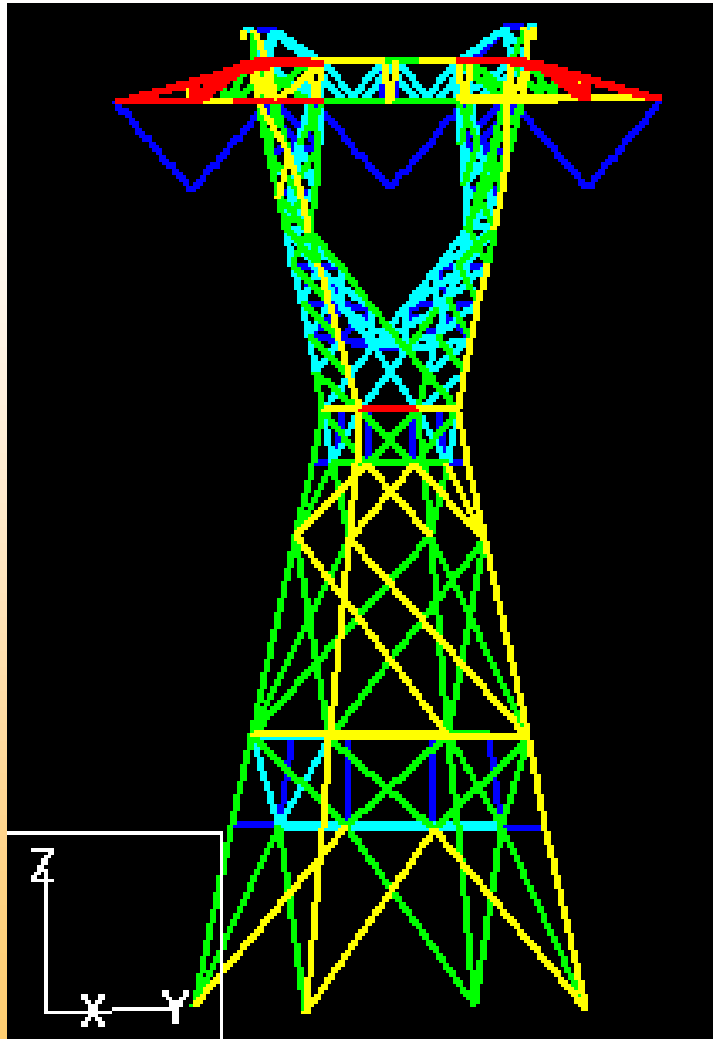




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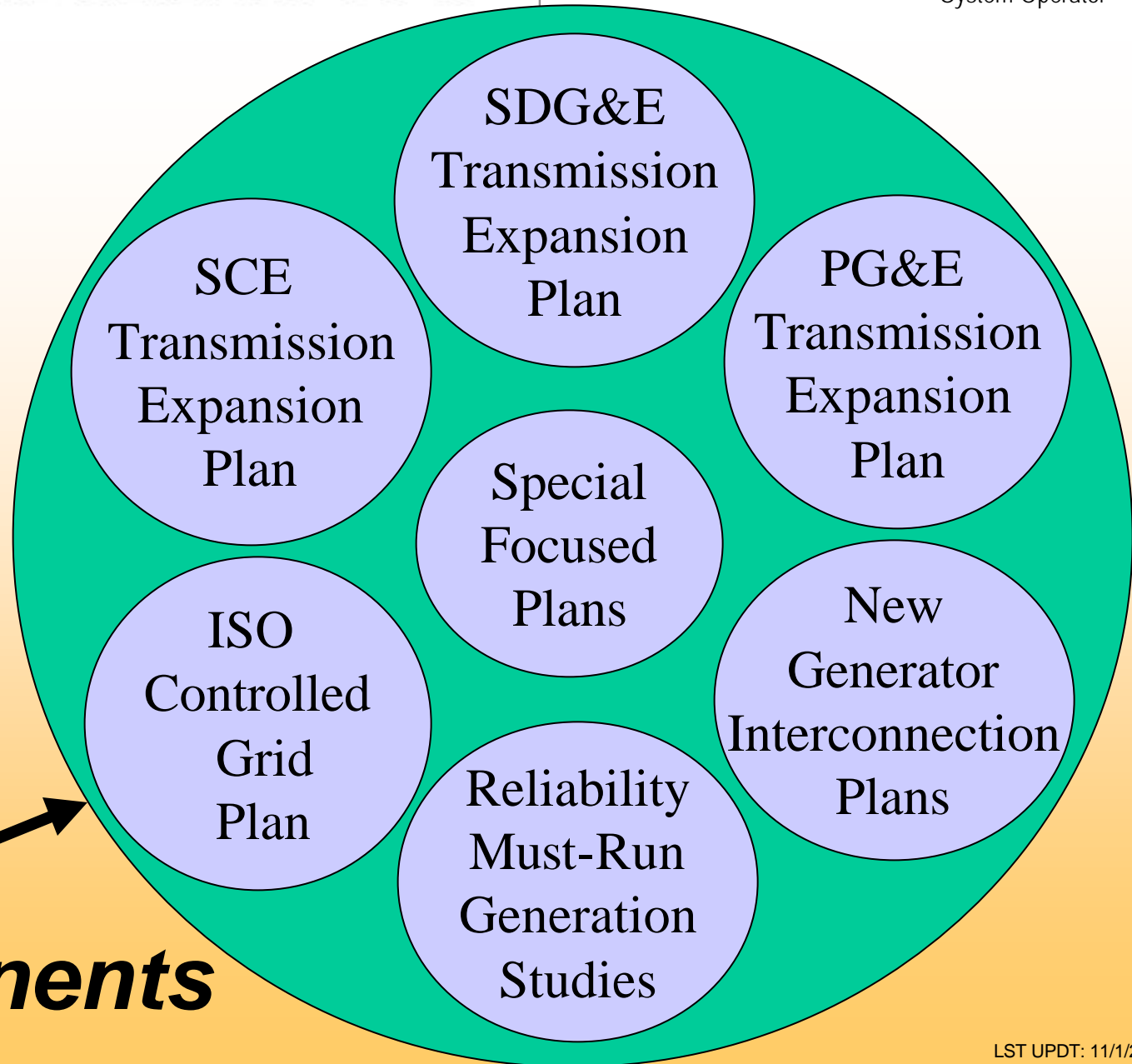
# California Long Term Regional Transmission Plan

**Presentation for CARTS  
November 1, 2002**

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Regional Planning Manager  
California ISO**



## ***ISO Grid Plan Components***





## Major Approved Projects

- ← = New 230 kV Project
- X = New 500/230 kV Transformer
- ← = New 500 kV Project





## Generation Projects

- 225 Projects have been Followed by ISO
- 42 Projects On-line (6000+ MW)
- 71 Projects in Planning, Permitting or Construction (26,000+ MW)
- 112 Projects Cancelled or Placed on Hold (33,000+ MW)



## Policy and Coordination

- Policy – In various forums, we develop standards, procedures, methodologies, requirements, new organizations, etc.
  - Continental Level – NERC & FERC
  - Western Interconnection Level – WECC, CREPC & SSG
  - ISO Level – Stakeholder Groups
- Coordination - Our planned changes will affect the entire interconnection and vice versa. All changes require some level of coordination.



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# California's Challenges

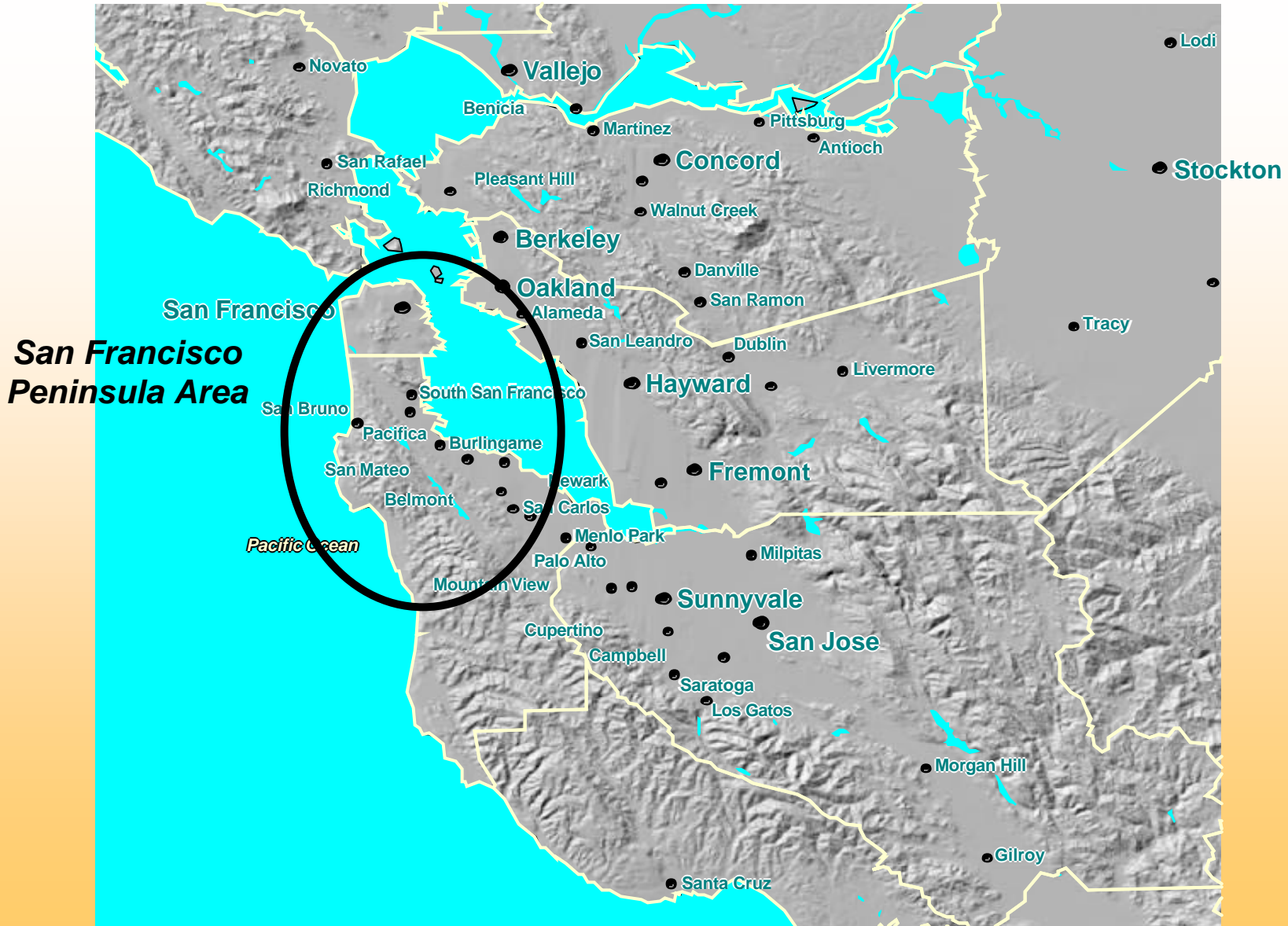
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- Service to local infrastructure
- Siting obstacles
  - Public process
  - Federal & State interaction
  - Long lead times – more than 5 years
- Money
- Reliability vs. economic
- Responsibility



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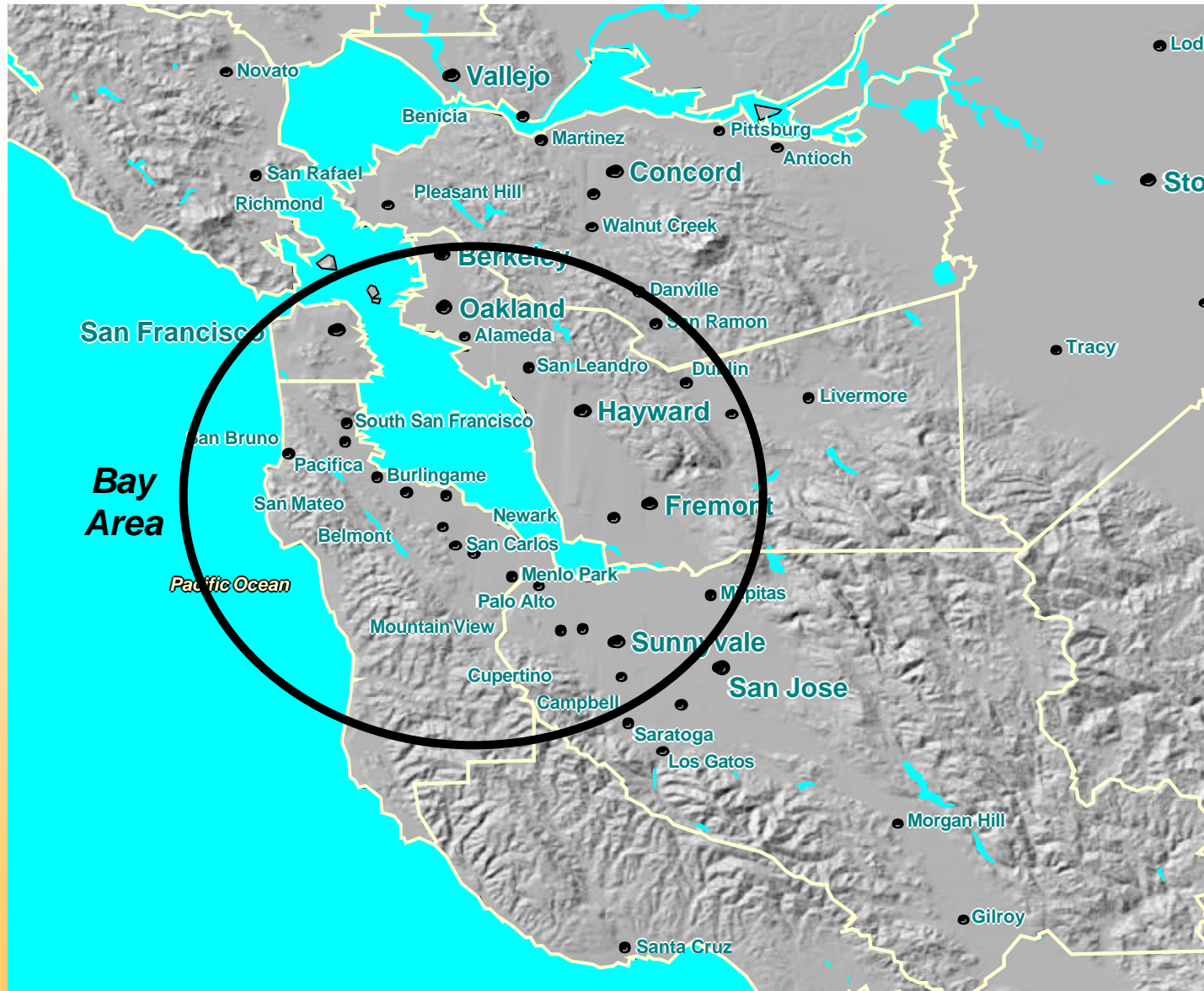


**San Francisco Peninsula Area**



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# What Is A Regional Long Term Transmission Study

- Status quo - five year expansion plan
- Purely technical
- Generation resource adequacy
- Theoretical - paper study
- Some or all of the above



## Who Is the Audience?

- PTOs
- Local area
- State or States
- Federal
- Some or all of the above



# CAISO Perspective

- Issues are complex
  - Simple technical analysis is insufficient
  - Fact or Myth?  
*New 500kV transmission can be successfully implemented within a five year planning horizon*
- Successful plan must be robust
  - Embraces numerous planning variables
  - Look forward 10 to 15 years
  - Facilitate broad stakeholder input
  - Provide insight and not necessarily specifics
- It will required a multi-faceted approach to achieve success



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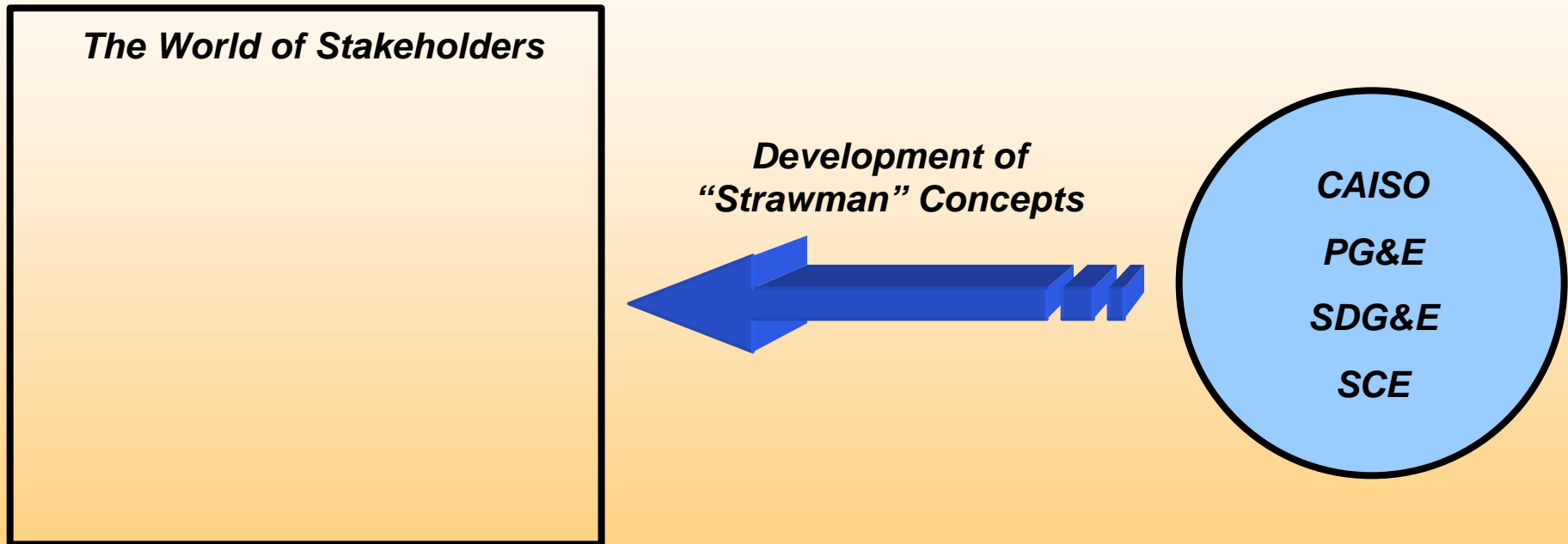
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## What's Going On

- CAISO will adopt the effort as a 2003 corporate objective
- CAISO will lead the effort
- Briefed the three major PTOs
- Draft “strawman” proposal is being developed



# One Possible Process

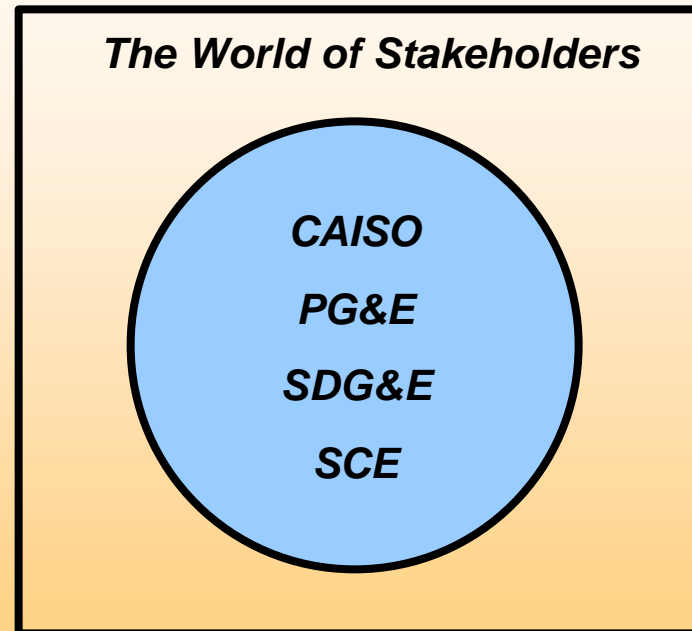




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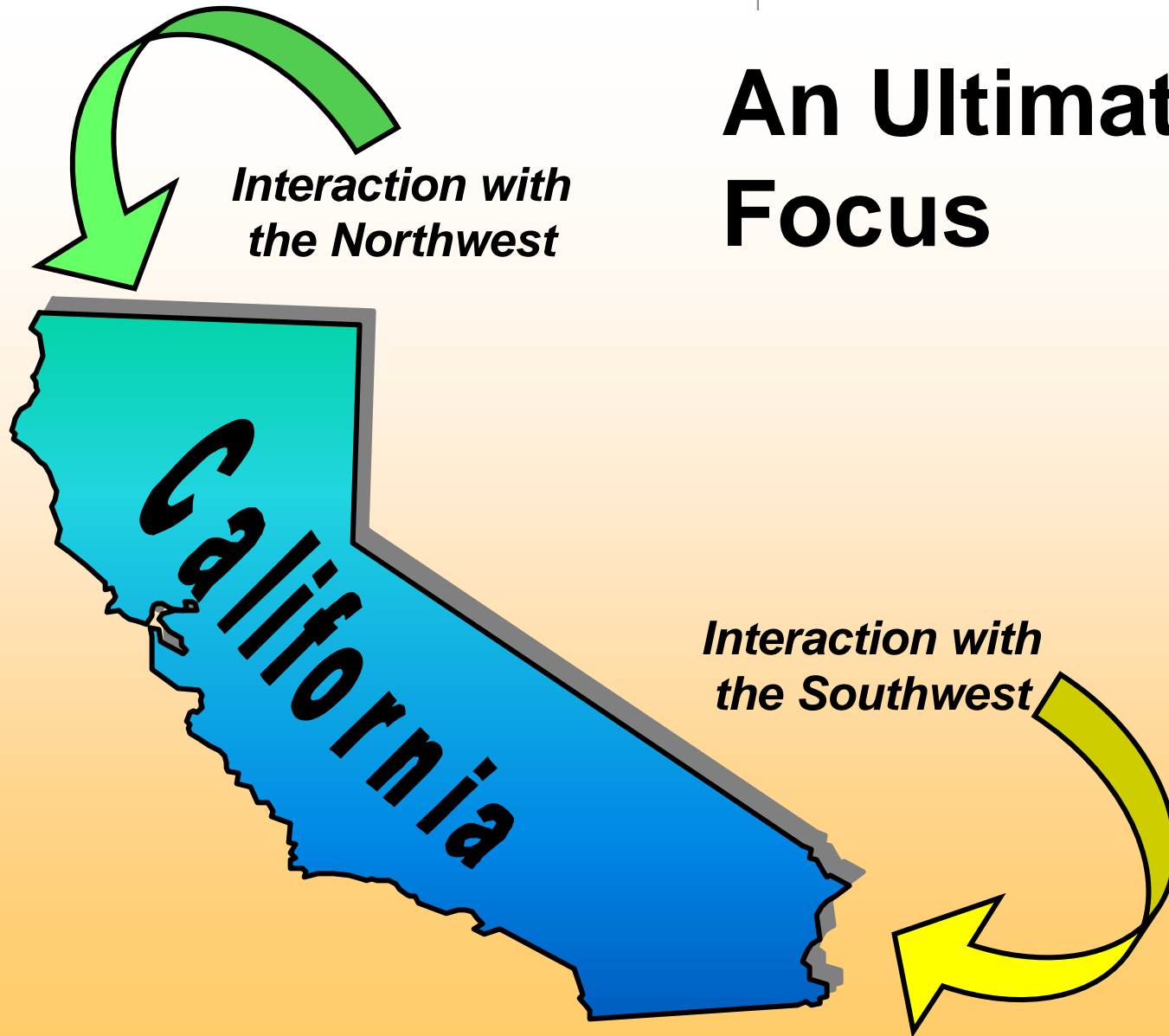
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# One Possible Process





## An Ultimate Focus





## Next Steps

- Work directly with the PTOs to develop a draft “strawman” proposal
  - Philosophies , objectives & methodologies
  - Responsibilities, processes & time line
- Brief stakeholders on the study
- Organize comprehensive stakeholder group
- Initiate “outreach” to others outside of California