

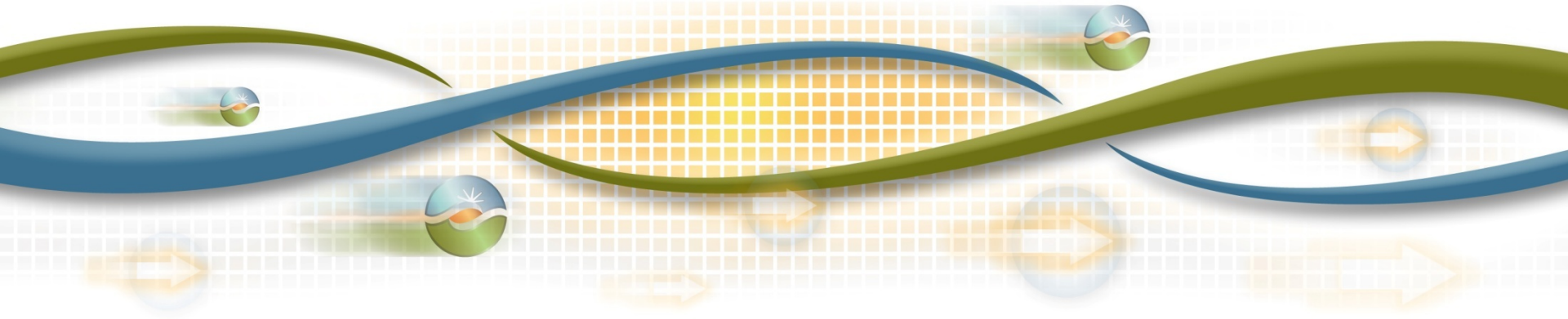


# Competitive Transmission Forum New England States

Stephen Ruty

Director, Grid Assets

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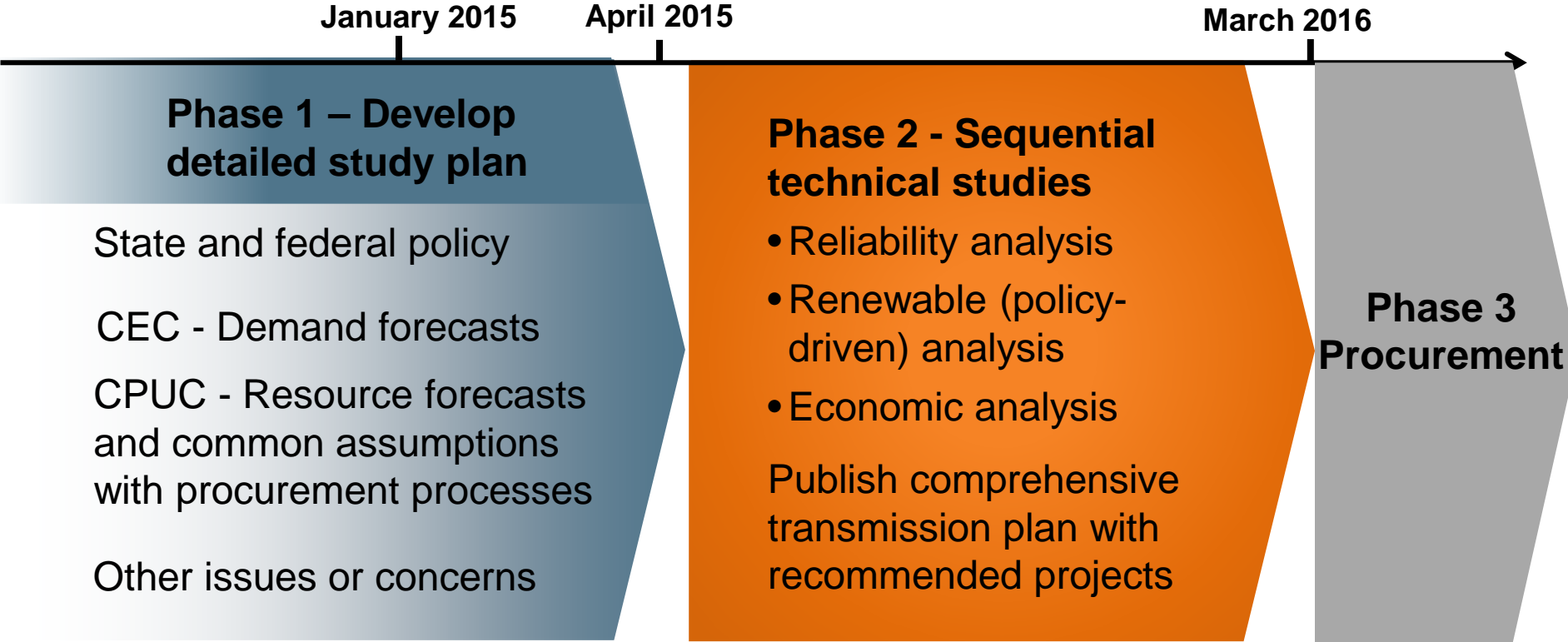


# The California ISO service area:



- **58,698** MW of power plant capacity
- **50,270** MW record peak demand (July 24, 2006)
- **26,500** market transactions per day
- **25,627** circuit-miles of transmission lines
- **30 million** people served

# ISO's annual transmission planning process relies on state policy and state agency input and aligns assumptions



ISO Board approves transmission plan

# Regional transmission facilities eligible for competitive solicitation

- Regional transmission facilities deemed needed under the comprehensive transmission planning process
- Approved by either:
  - the ISO Board as part of the annual comprehensive Transmission Plan, or
  - approved by management if capital costs are \$50 million or less (accelerated basis).

*Regional transmission facilities not eligible for competitive solicitation:*

- *Facilities that involve an upgrade or improvement to, addition on, or a replacement of a part of an existing participating TO facility*
- *all projects under 200 kV*

# Functional Specifications, Information Conference Calls and Q&A Document

- The ISO posts functional specifications for each regional transmission facility eligible for competitive solicitation
  - Includes key selection factors
- The ISO hosts an informational conference call after opening each bid window to discuss:
  - Process
  - Schedules
  - Application form
  - Functional specifications
- Project sponsors applicants can submit questions during the open bid window. The ISO will post answers on the CAISO website for all interested parties to view.

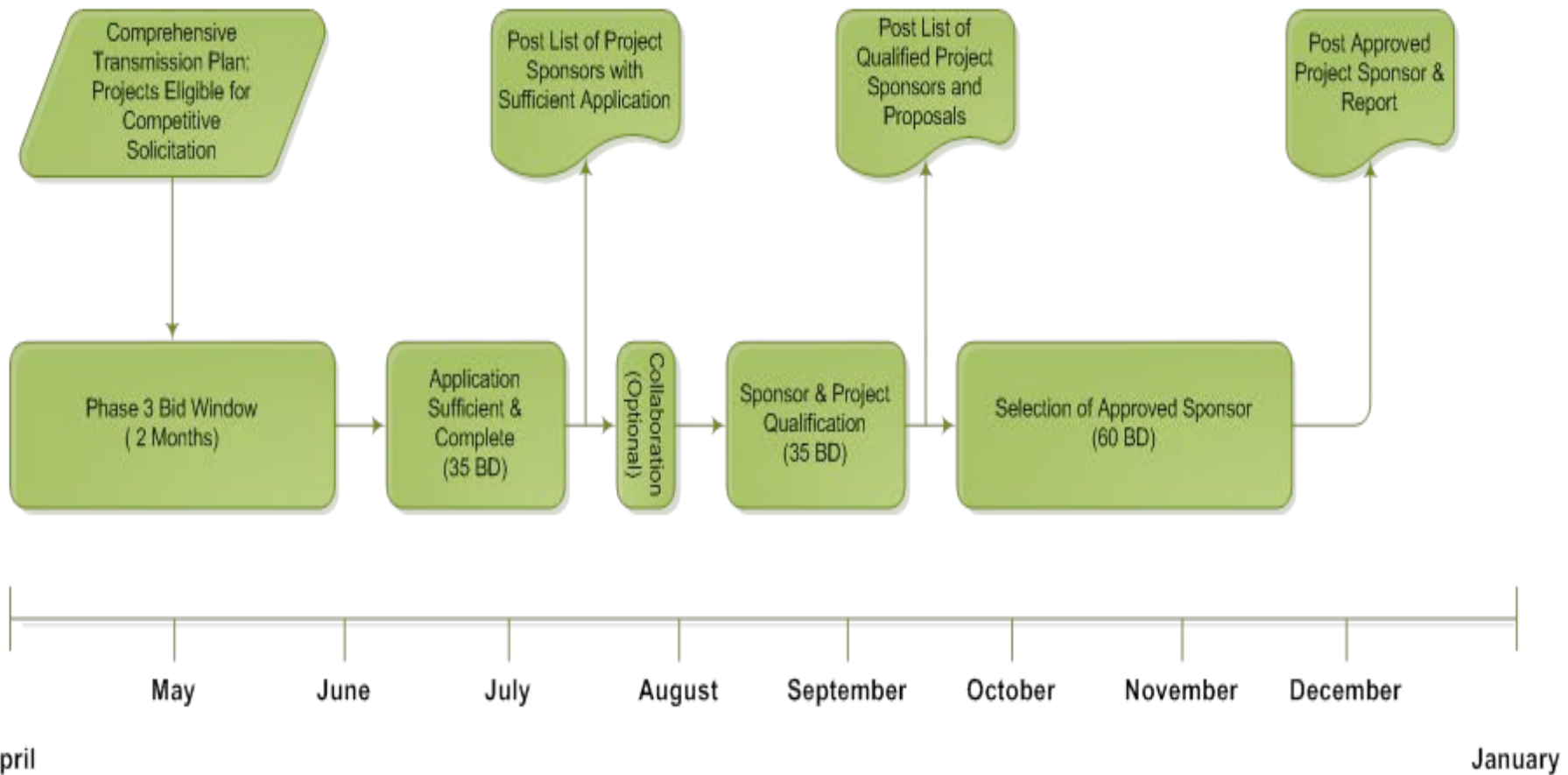
# Project sponsor application contents:

1. Introduction
2. General Instructions
3. Project Sponsor, Name and Public Identification, and Qualifications
4. Past Projects, Project Management and Cost Containment
5. Financial - Financial Resources
6. Environment and Public Processes
7. Substation - Experience and Abilities
8. Transmission Line - Experience and Abilities
9. Construction - Construction Plan and Management Practices
10. Operation and Maintenance - Experience and Abilities
11. Miscellaneous
12. Officer Certification
13. Payment Instructions

# Application Deposits

- Project sponsors must submit a deposit of \$75,000 with its application
- Project sponsors are responsible for the actual costs that the ISO incurs in validating, qualifying and selecting an approved project sponsor, including the cost of retained expert consultants
- Costs not to exceed \$150,000 per project sponsor

# Competitive solicitation schedule



Note: This is a general depiction of the process and timeline without collaboration. With collaboration the schedule will be shifted up to 50 business days. The ISO will post the official schedule at the opening of the bid window.



## ISO uses a holistic evaluation approach to selecting an approved project sponsor and proposal

- No pre-set weights for evaluation criteria - doing so would limit the flexibility to evaluate the large variety of regional transmission facilities that may be built.
- A comparative analysis evaluation better reflects the importance of individual selection factors that can vary according to the type of regional transmission facility.
- Project sponsor's cost estimates are not used as a primary determinant because it limits the ability to:
  - evaluate considerations pertaining to reliability; and
  - consider the project sponsor's capability to engineer, permit, build, operate, and maintain the regional transmission facility.

# Selection factors

- a) current and expected capabilities of the project sponsor and its team to finance, license, and construct the regional transmission facility for the life of the project;
- b) existing rights-of-way and substations that would contribute to the facility in question;
- c) experience in acquiring rights-of-way;
- d) proposed schedule and demonstrated ability to meet that schedule;
- e) financial resources;
- f) technical and engineering qualifications and experience;
- g) previous record regarding construction and maintenance of transmission facilities;
- h) demonstrated capability to adhere to standardized construction, maintenance and operating practices;
- i) demonstrated ability to assume liability for major losses resulting from failure of facilities;
- j) demonstrated cost containment capability, specifically, binding cost control measures (such as accepting a cost cap);
- k) any other strengths and advantages the project sponsor may have to build and own the specific regional transmission facility

# Use of Consultants

The ISO currently engages two industry consulting firms

One firm primarily supports the analysis of:

- Financial strength and cost evaluation
- Design, construction, and schedule
- Permitting and environmental
- Operations & maintenance

The second firm supports economic and financial analysis, particularly cost of service analysis

# The ISO's competitive solicitation process has been very active:

- Selections completed:
  - Imperial Valley area collector station
  - Gregg-Gates 230 kV transmission line
  - Sycamore - Penasquitos 230 kV transmission line
  - Miguel and Suncrest dynamic reactive support
  - Estrella, Spring, and Wheeler Ridge substations
  - Delaney-Colorado River 500 kV transmission line
- One is still in the process:
  - Harry Allen – Eldorado 500 kV transmission line

# Approved Project Sponsor Agreement (APSA)

- Once the project sponsor is selected
  - Agreement tendered ~ 30 CD
  - Execute Agreement – 120 CD
- Agreement includes:
  - Obligation to build the project
  - Structured reporting requirements & communications
  - Milestone requirements
  - Define project specifics on an element basis
  - Specification review and approval
  - Study process for interconnection requests
  - Obligation to become a PTO, if applicable

# Continuous stakeholder initiatives to review and improve the competitive solicitation process

- Revised Transmission Planning Process (2010)
- Compliance with FERC Order No. 1000 (2012)
- Ongoing lessons learned and competitive transmission improvements initiatives (2013-2015)

## Process improvements prior to the 2013-2014 competitive solicitation

- Added officer certification form to the sponsor application
- Added clarity to the financial questions in the application
- Post sequence schedules detailing start/end dates and project milestones for each solicitation
- Developed the *pro forma* Approved Project Sponsor Agreement (APSA) with stakeholders
- Improved functional specifications to provide additional information regarding the key selection criteria for each project

# Process modifications currently under consideration by the ISO and stakeholders

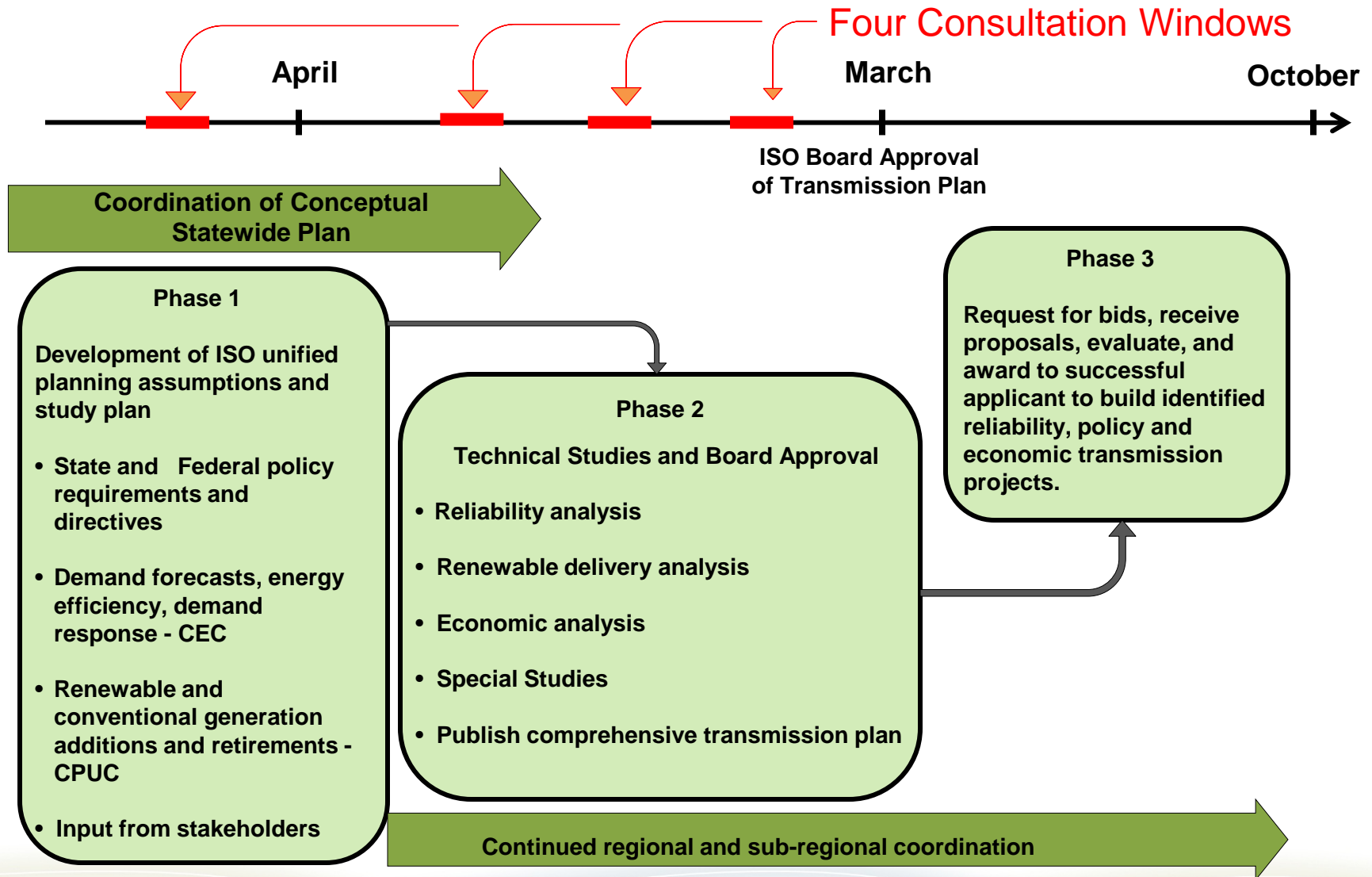
- Modifications to the collaboration period/process
  - Move collaboration to coincide with the open bid window
    - Addresses gaming concerns
    - Adds efficiency to process
- Obligations regarding the transfer of assets
  - Determining requirements or obligation to transfer assets to an alternative project sponsor if the original approved project sponsor is unable to complete the project
- Additional improvements and clarifications to the sponsor application



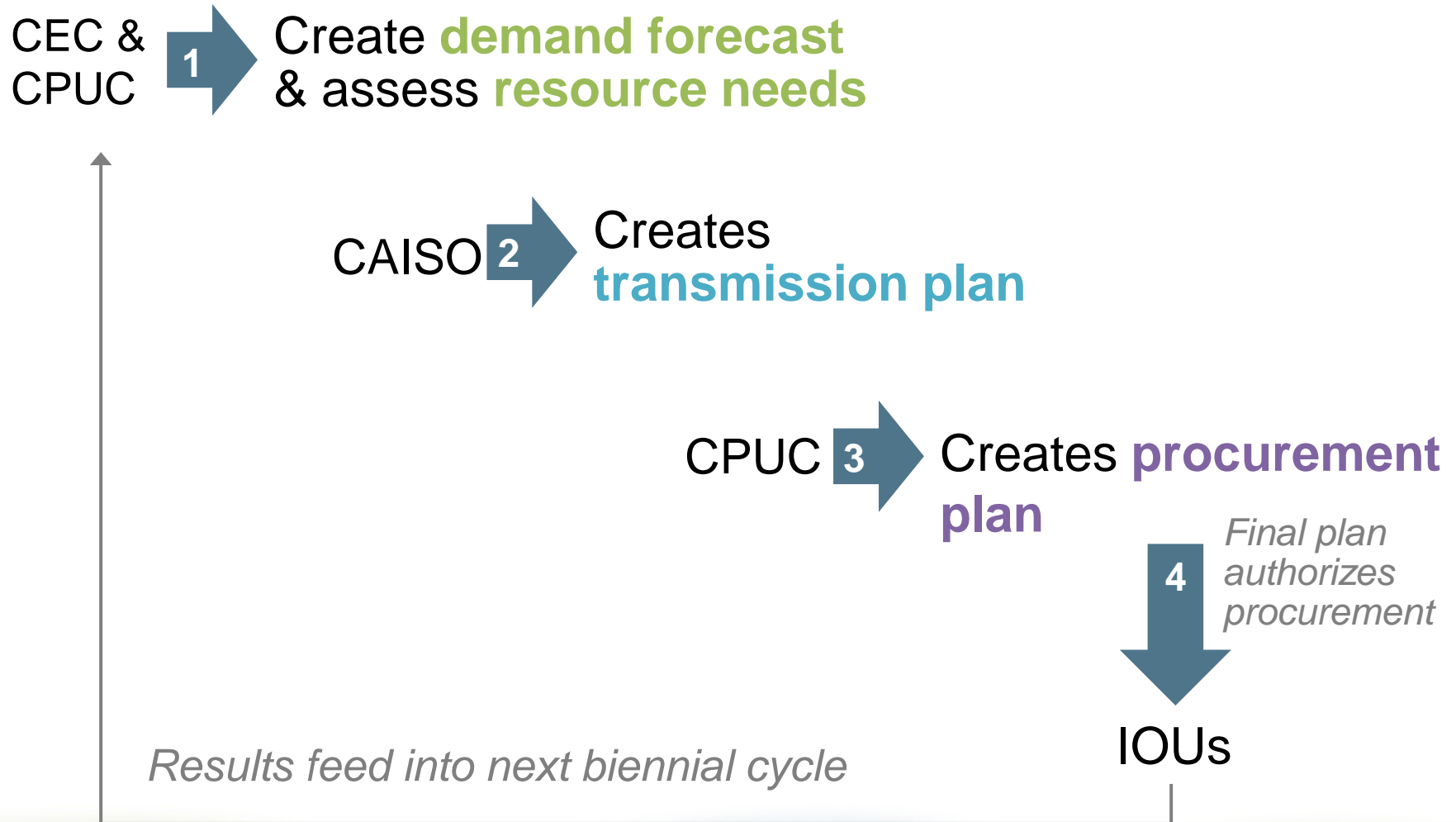
# Questions?

Additional / detailed information on the following slides

# CAISO Annual Transmission Planning Process



# Transmission planning is coordinated with state processes:



# What are the...

## Demand forecast & resource needs

The **demand forecast (CEC)** projects peak-hour & annual energy demand 20 years forward, adjusted for energy efficiency, rooftop solar and demand response

**Resource needs (CPUC)** reflect RPS mandates, plus system adequacy, local area reliability and flexible capacity needs

## Transmission plan

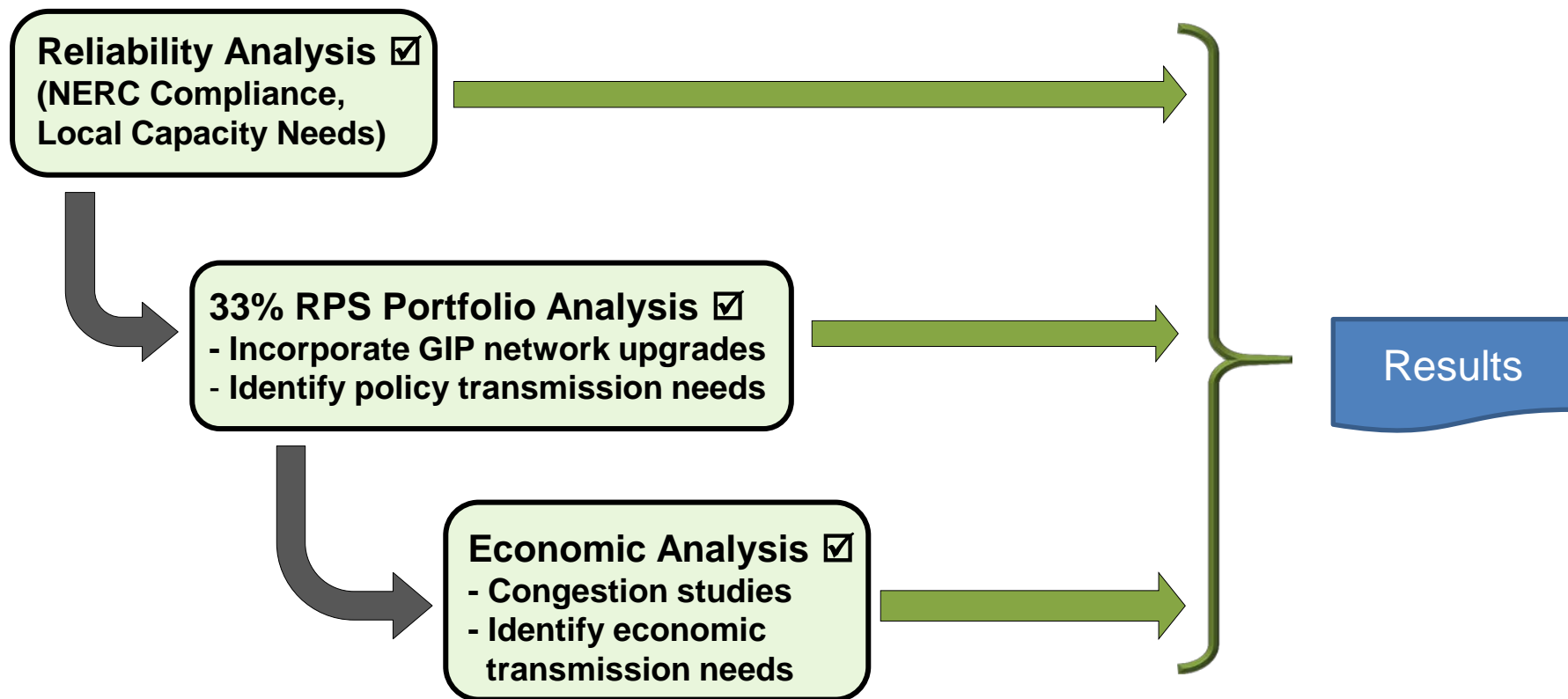
The **transmission plan (ISO)** specifies the set of new transmission lines, upgrades to existing lines or non-transmission alternatives needed to support the **resource needs** and **demand forecast**, and address **policy** or **economic needs**

## Procurement plan

The **procurement plan (CPUC)** tells each IOU what it is authorized to procure to meet the **demand forecast** and **resource needs**, given the projects approved in the **transmission plan**

The **procurement plan** includes renewable & conventional resources, plus demand response, energy efficiency and distributed resources

# The ISO planning process considers all aspects of transmission system needs:



# The Transmission Planning Process has 4 Annual Stakeholder Meetings

- February (Q1) – ISO hosts stakeholder meeting #1 to discuss the contents in the study plan.
- September (Q3) – ISO hosts stakeholder meeting #2 to discuss reliability study results, PTO's reliability solutions, and the conceptual statewide plan.
- November (Q4) – ISO hosts stakeholder meeting #3 to present the preliminary assessment of the policy-driven and economic planning study results and the recommended solutions that are less than \$50 million.
- February (Q1 of following year) – ISO hosts stakeholder meeting #4 to discuss projects recommended for approval and the contents of the Transmission Plan.

# Annual Transmission Plan

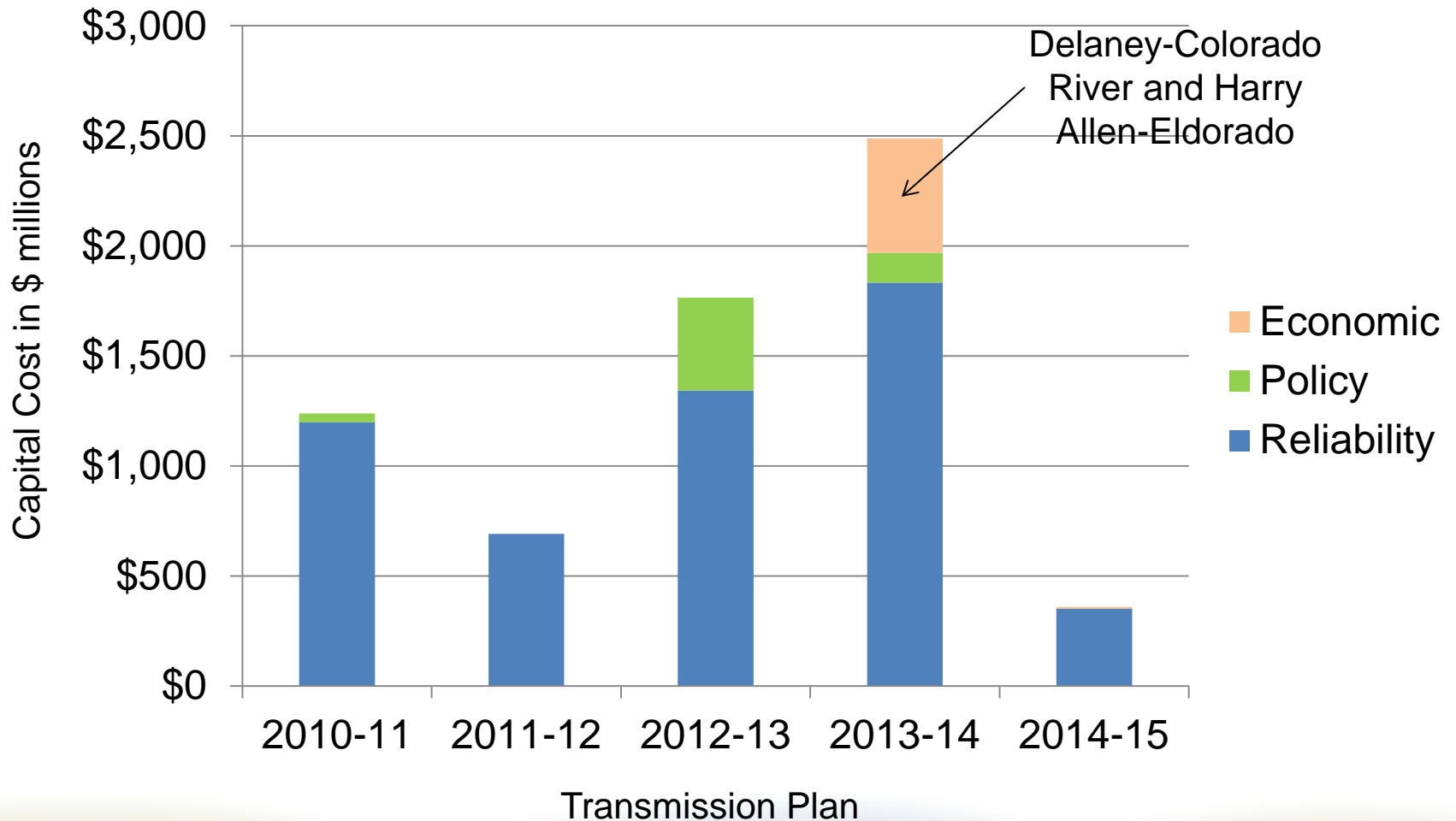
- Transmission Upgrades or Additions Projects - descriptions of all transmission projects needed to address the objective of the Study Plan
- Identification of selected non-transmission alternatives to transmission upgrades
- Projects with capital costs, \$50M or more for which all necessary studies are completed requiring Board approval
  - Projects with capital costs less than \$50M, approved by ISO Management and proceeding to permitting, siting and construction
- Results of technical analysis performed under the Study Plan
- Update of status of transmission upgrades or additions previously approved by the ISO including identification of mitigation plans
- System outlook – information on future system conditions and issues

# ISO Management and Board Approval Process

- ISO Management approves projects with a capital cost of \$50 million or less usually in the December timeframe but can be approved later in the planning cycle if more analysis is needed to be completed in order to make a decision.
- The Revised Draft Transmission Plan is presented to the ISO Governing Board for approval resulting in the Board Approved Plan
  - Transmission upgrades and additions with estimated capital costs \$50M or more will then be deemed approved
  - Board Approval of projects with estimated capital cost \$50M or more for which additional studies are required will occur after the Board Approved Plan is posted
  - Approval of other findings, including selection of non-transmission alternatives
- ISO posts the Board Approved Comprehensive Transmission
- ISO makes the Plan available to neighboring transmission providers, interconnected BAAs and regional planning groups



# Transmission approvals over the last 5 years – over 30 projects a year until 2014-2015:



# Phase 3 of the Transmission Planning Process

- Bid window opens in the month following approval of the eligible projects by the BOG (generally in April)
- Minimum bid window is two months, but the ISO may choose a longer bid window for complex projects, or to balance work load.
- Phase 3 schedule:
  - Validation: 35 BDs (ISO posts list of validated applications)
  - Collaboration: 10 to 65 BD (ISO re-posts validated applications)
  - Qualification: 35 BDs (ISO posts list of qualified applications)
  - Comparative Analysis: 60 BDs (ISO post approved project sponsor and the selection report detailing the comparative analysis)

# Officer Certification

- Officer certifies that s/he has full authority to represent the project sponsor or affiliate of the project sponsor.
- Officer certifies that the information contained in the application is true, accurate and that there are no material omissions

## Additional Information

- Project Sponsor application is posted to the TPP webpage at:  
<http://www.caiso.com/planning/Pages/TransmissionPlanning/Default.aspx>

# Application validation and project sponsor collaboration

- Following the close of the bid application window, the ISO will:
  - review the proposal applications for completeness and allow a cure period if any applications are incomplete
  - post to the website a list of those project sponsors whose applications are deemed complete
  - if more than two project sponsors have submitted complete applications, allow an opportunity for these sponsors to collaborate

# Project sponsor minimum qualification criteria

- Project Sponsor has assembled (or plans to assemble) a sufficient sized team with the knowledge and skill to design, construct, operate and maintain the regional transmission facility.
- Project Sponsor has sufficient financial resources, including the ability to assume liability from major losses resulting from failure of any part of the regional transmission facility.
- Project Sponsor's schedule meets the ISO's requirements, and the sponsor has the ability to meet its proposed schedule.
- Project Sponsor and its team (or planned team) have the necessary technical and engineering qualifications and experience to design, construct, operate and maintain the regional transmission facility.
- Project Sponsor agrees to sign the TCA (Transmission Control Agreement), become a PTO (Participating Transmission Owner), comply with NERC and WECC requirements and standards, and will turn the regional transmission facility over to the ISO's operational control.

# Project proposal minimum qualification criteria

- Whether the proposed design of the regional transmission facility is consistent with needs identified in the comprehensive Transmission Plan.
- Whether the proposed design of the regional transmission facility satisfies applicable reliability criteria and CAISO planning standards.

The ISO will post the list of qualified project sponsors and proposals.

# Project sponsor selection among qualified sponsors and proposals

- Single Project Sponsor is automatically selected
- Multiple Project Sponsors
  - The ISO, with assistance from a qualified expert consultant, will conduct a comparative analysis and select the approved project sponsor.
  - The ISO will post the identity of the approved project sponsor, along with a report summarizing the comparative analysis.



## ISO will use comparative analysis to determine the approved project sponsor

- Selection based on a comparative analysis of the degree to which each Project Sponsor's proposal meets the qualification criteria and selection factors, as set forth in Tariff section 24.5.4
- Objective is to determine the qualified Project Sponsor which is best able to:
  - Design, finance, license, construct;
  - Maintain, and operate the regional transmission facility in a cost-effective, efficient, prudent, reliable, and capable manner over the lifetime of the transmission solution(s); while
  - Maximizing overall benefits and minimizing the risk of untimely project completion, project abandonment, future reliability issues, and operational or other relevant problems.

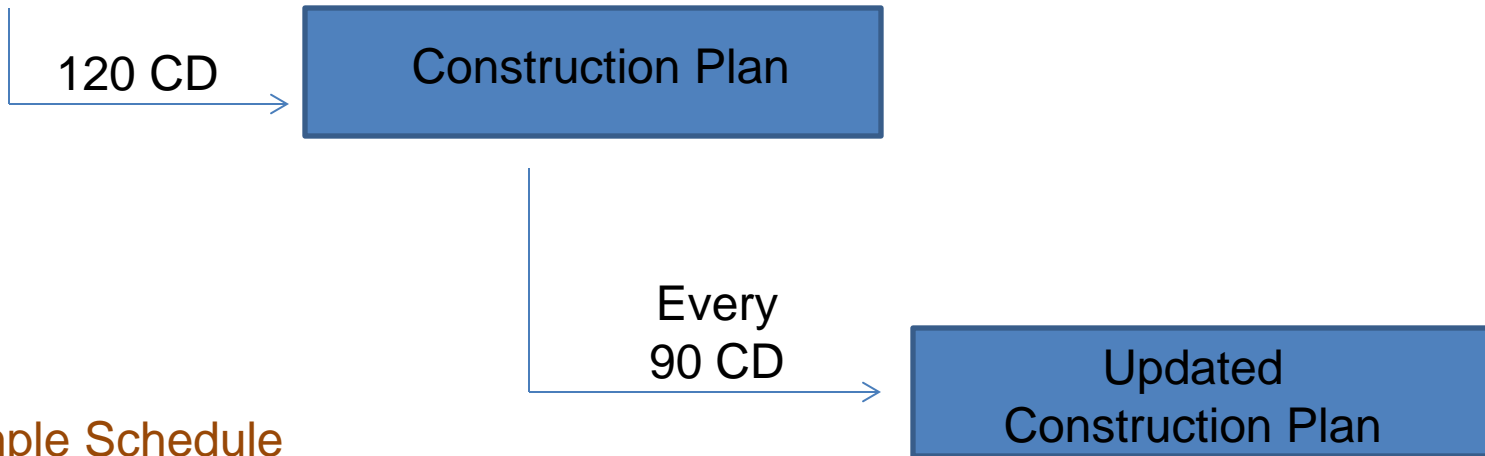
## Posting approved project sponsor(s) and selection report

- The ISO will posts the approved project sponsor(s) for each regional transmission facility eligible for competitive solicitation.
- The ISO also posts a detailed report regarding the selection of the approved project sponsor(s).

# Approved Sponsor - Progress Reporting Schedule



ISO selects Approved Project Sponsor



## Sample Schedule

- Selected – September 9, 2014
- Construction plan due January 7, 2015
- Update due April 7, 2015, July 6, October 4, January 2, 2016, April 1, June 30, etc.

# Report Requirements

- Project schedule
- Permit and license status – environmental, state, local
- Right-of-way status
- Land acquisition
- Design and engineering status
- Concern or change in ability to meet design specs
- Status of contracts for project work including land, procurement, staff
- PTO interconnection agreement status
- Construction status
- Testing status
- Risks and obstacles
- Budget – actuals; estimate to complete; contingency