

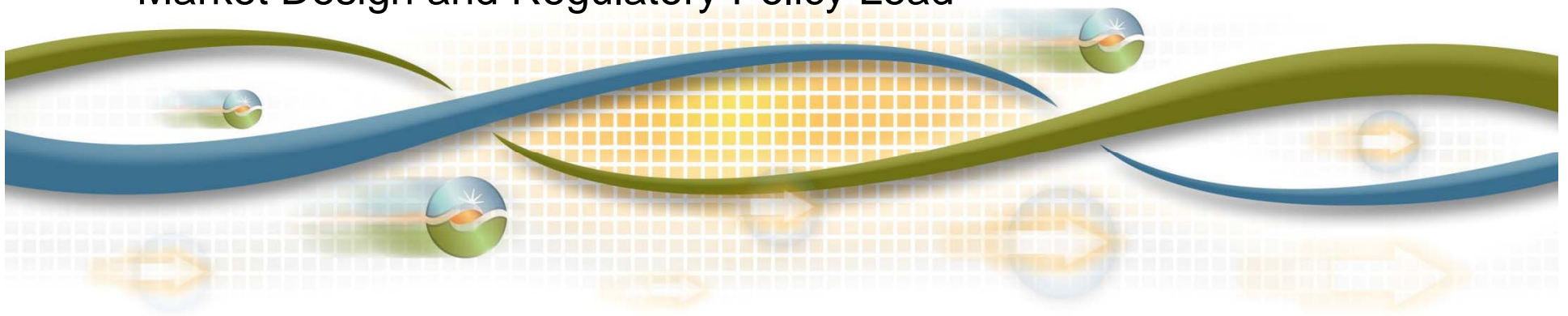


California ISO  
Shaping a Renewed Future

# Integration of Transmission Planning and Generator Interconnection (TPP-GIP Integration)

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# Background

1. Today TPP & GIP operate in parallel, independently identifying and approving potentially costly, ratepayer-funded transmission additions & upgrades
  - 2010 TPP revision provided some limited capability for TPP review and modification of GIP-driven projects
2. Current GIP rules require ratepayers to reimburse interconnection customers 100% for costs of network upgrades needed for reliability and RA deliverability
  - Other ISOs & RTOs have provisions for interconnection customers to pay for interconnection-related upgrades
  - In 2006 CAISO proposed “economic test” to limit ratepayer responsibility for high-cost upgrades; FERC rejected proposal “without prejudice”

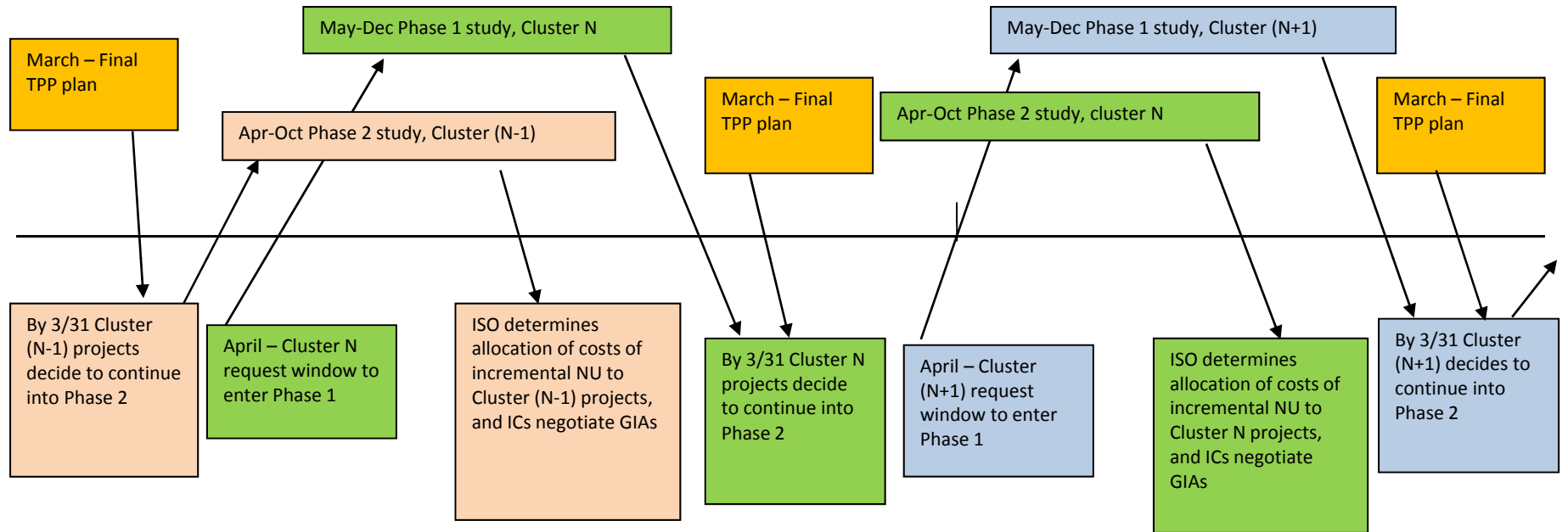
# Objectives

1. Develop ratepayer-funded transmission for the ISO grid in a comprehensive planning process
2. Rely primarily on the TPP for developing ratepayer-funded transmission, including policy-driven needs to meet 33% RPS
3. Provide incentives for developers to locate projects to make the most efficient use of transmission
4. Limit ratepayer exposure to costs of underutilized transmission upgrades
5. Provide greater certainty that transmission approved by ISO will be permitted by siting authority (CPUC)
6. Greater transparency regarding network upgrade decisions
7. Resolve four open GIP issues related to initiative scope

## Central design concepts

1. Identify public-policy objectives for planning in the TPP (i.e., 33% renewable energy by 2020)
2. TPP determines needed policy-driven transmission to deliver energy from alternative renewable portfolios
3. TPP-approved transmission that meets interconnection needs will relieve ICs of GIP upgrade costs
4. ICs will pay for incremental upgrades beyond the TPP
  - ICs receive CRRs for transmission capacity they pay for
5. ISO applies an equitable process to allocate ratepayer-funded transmission in over-subscribed areas
6. IC is eligible to recover costs for excess capacity paid for and used by later-queued projects

# Proposed Time Line for the Integrated TPP-GIP



GREEN boxes indicate the complete GIP cycle for Cluster N, from interconnection request to GIA negotiation

# Main Features of ISO's Revised Straw Proposal

- Process retains today's 2-phase GIP study process
  - Study assumptions need to reflect uncertainty around IC-funded transmission
- TPP cycle proceeds in parallel, producing final comprehensive plan prior to start of GIP Phase 2
  - ICs decide whether to enter Phase 2 based on approved comprehensive plan and Phase 1 study results
- Phase 2 identifies incremental network upgrades and estimates costs for Phase 2 participants
  - Costs estimates are “soft” caps – maintained unless ultimate costs of network upgrades exceed caps by more than 25%
- Implication of new process: No longer have GIP-driven ratepayer-funded upgrades
  - Interconnection upgrades are either obviated by TPP transmission or funded by ICs

# Allocating TPP Approved Capacity for “over-subscribed” grid areas

- The ISO must determine methodology to :
  - Allocate ratepayer funded TPP transmission in over-subscribed grid study areas
  - Allocate costs of additional upgrades required to provide deliverability among projects in an over-subscribed area
- Five options to allocate TPP-approved transmission
  - Option 3A: First Come First Serve (completed project milestones)
  - Option 3B: Pro Rata (project utilization of grid facilities)
  - Option 3C: Auction
  - Option 3F: LSE chooses
  - Option 3H: Ranking of projects (combination of 3A, 3B, and 3F)
    - Ranking criteria to be established



## Potential Ranking Criteria for Option 3H

- A permit from the CEC or other licensing authority
- A PPA or RFO short listed
- Site control
- Effectiveness factor or flow impact on TPP-approved facilities
- Commercial Operation Date (COD)
- Equipment purchased
- Potential energy output
- Potential capacity value
- Gen-tie access and progress on interconnection facilities
- Number of previously approved modification requests for the project



## IC-funded Network Upgrades: The “First Comer-Late Mover” Problem

- If IC-funded upgrades create excess capacity (lumpy upgrades), how should later projects that benefit from the excess compensate those who paid?
  - Option 3E: Initial ICs pay for the full incremental network upgrade costs and later ICs that utilize the transmission capacity paid for by the earlier ICs will reimburse the earlier ICs for a pro rata share of the network upgrade costs.
  - Option 3G: Initial ICs are required to pay only their pro rata shares of the incremental network upgrade costs and ratepayers up-front fund the excess capacity not needed by these ICs. Later-queued projects will be required to reimburse ratepayers.



Transition to new framework is based on planned timeline for Board and FERC approvals.

Assuming:

- Board approval December 2011
- FERC filing January 2012
- FERC approval March 2012
- Clusters 1-2 and 3-4 would not be affected by new framework
- Cluster 5 would open and proceed completely under new framework