

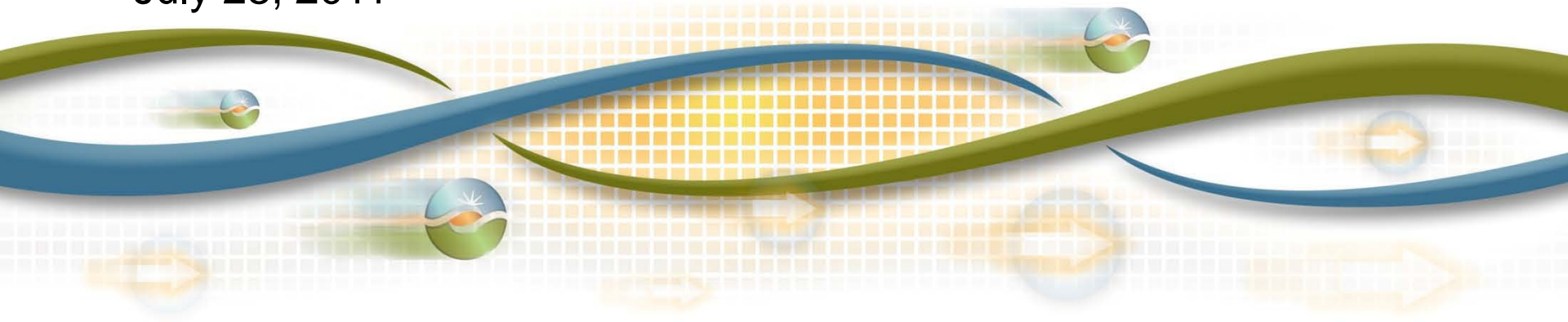


California ISO
Shaping a Renewed Future

Integration of Transmission Planning and Generator Interconnection

Lorenzo Kristov, Principal, Market and Infrastructure Policy
Karl Meeusen, Market Design and Regulatory Policy Lead

Stakeholder Meeting
July 28, 2011

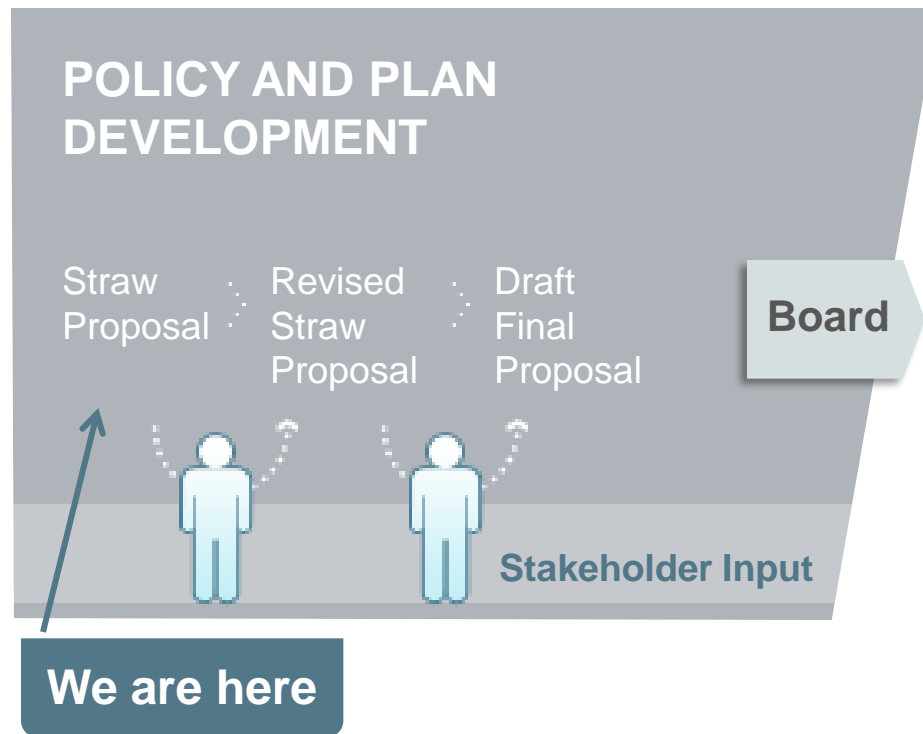


Introduction, Stakeholder Process

Mercy Parker-Helget

Senior Stakeholder Engagement and Policy
Specialist

ISO Stakeholder Initiative Process



Agenda

Time	Topic	Speaker
10:00-10:15	Introduction, Stakeholder Process	Mercy Parker Helget
10:15-10:30	Meeting Overview and Schedule	
10:30-11:15	Background and Objectives of TPP-GIP Integration Initiative	Lorenzo Kristov
11:15-12:00	Overview of the MISO Transmission Planning Process	Karl Meeusen
12:00-12:45	Lunch – All are welcome to use ISO’s cafeteria	
12:45-2:15	Straw proposal	Lorenzo Kristov
2:15-2:30	Break	
2:30-3:15	Straw proposal (Continued)	Lorenzo Kristov
3:15-3:45	Transition to the new TPP-GIP Framework	Lorenzo Kristov
3:45-4:00	Next Steps	

Proposed Stakeholder Process

Date	Event
July 21	ISO posts Straw Proposal
July 28	stakeholder meeting at ISO
August 4	stakeholders' written comments due
September 12	REVISED DATE – ISO posts Revised Straw Proposal
September 19	REVISED DATE – stakeholder meeting at ISO
September 26	REVISED DATE – stakeholders' written comments due
October 18	ISO posts Draft Final Proposal
October 25	stakeholder meeting at ISO
November 1	stakeholders' written comments due
December 15-16	ISO Board meeting

Background and Objectives

Lorenzo Kristov

Principal, Market & Infrastructure Policy

Background – This initiative builds on the 2010 GIP-1 and Revised TPP efforts.

- Revised TPP
 - New public-policy-driven transmission category
 - Use of multiple 33% RPS resource portfolios to identify policy-driven transmission
 - Provisions for re-evaluating and enhancing GIP-driven upgrades in the TPP
 - Annual comprehensive transmission plan for ISO area
- GIP-1
 - Combined small and large GIP
 - Established coordinated time line for GIP and TPP

Background 2 – Initiative revisits “economic test” element of 2006 ISO compliance with Order 2003.

- Original economic test filing proposed limit on ratepayer funding for GIP-driven upgrades, and assigned incremental cost to customer
 - FERC rejected proposal without prejudice
 - FERC has approved analogous provisions for other ISOs/RTOs
- GIP-2 Work Group 1 proposed to:
 - Revisit economic test to develop new proposal
 - Resolve leftover RTPP question of adjusting customer’s cost responsibility when GIP-driven upgrade is enhanced in TPP
- Importance of issues indicated need for more time and concentrated focus via separate initiative.

Objectives

1. Develop ratepayer-funded transmission for the ISO grid in a comprehensive planning process
2. Rely primarily on the TPP as the venue for developing ratepayer-funded transmission
3. Provide incentives for resource developer location decisions to make most efficient use of transmission
4. Limit potential ratepayer exposure to costs for under-utilized or excessive transmission upgrades
5. Provide greater certainty that transmission approved by ISO will be permitted by siting authority (CPUC)
6. Create greater transparency to transmission upgrade decisions.

Objectives – continued

7. Resolve relevant GIP issues (partial/tentative list)
 - a. Appropriate customer funding requirements when GIP-driven upgrades are included or enhanced in comprehensive plan
 - b. Re-study process when customers drop out of queue
 - c. Disposition of funds from customers that drop out of queue
 - d. Allow generation project development milestones to substitute for financial postings as ‘skin in the game’
 - e. How best to manage or filter vastly unrealistic MW volumes submitting interconnection requests
 - f. How to structure study process when queue volume is extremely large
 - g. At what points in TPP-GIP should customers be allowed to downsize projects?

Additional questions invited – final scope TBD.

Overview of the MISO Transmission Planning Process

Karl Meeusen

Market Design & Regulatory Policy Lead

Overview of the MISO Transmission Planning Process

- FERC approved updates to the MISO Regional Expansion Criteria and Benefits (RECB) on 12/16/2010
- Revisions approved by FERC include
 - Creation of a policy driven category of transmission projects (Multi Valued Projects or MVP)
 - Updates and revisions to which interconnections are eligible to have their network upgrades covered at ratepayer expense
 - Determination of rules for rights and entitlements for interconnection customers that build network upgrades that are not eligible for cost recovery

MISO's Multi Valued Projects

- The new MVP transmission project category, is designed to:
 - Facilitate the integration of large amounts of location-constrained resources, including renewable generation resources;
 - Support Midwest ISO member and customer compliance with evolving state and federal energy policy requirements;
 - Enable the Midwest ISO to address multiple reliability needs and provide economic opportunities through regional transmission development; and
 - Strike a better balance than the current effective rules in allocating costs among multiple beneficiaries by reserving the GIP category (which allocates nearly all costs to Interconnection Customers) for more locally focused Network Upgrades that are not required for the regional system enhancements that will now be covered by the MVP category.

Relationship between GIP and TPP in MISO

- Transmission projects must pass through a series of screens to be eligible for cost recovery
- At the initial phase, any proposed project can be submitted into the process
- The MISO conducts a conceptual transmission study of each submitted proposal
 - Conceptual study includes renewable energy regions and is not based on specific interconnection requests

Relationship between GIP and TPP in MISO (cont.)

- After conceptual study, MISO staff proposes projects that should move forward for additional studies and, eventually, final approval
- Projects that pass all screens then become eligible for cost recovery
- GIP requests that require network upgrades that are not identified through this process are not eligible for cost recovery from ratepayers.

Cost Allocation of Network Upgrades

- If cumulative capacity in an area exceeds the capacity of the approved MVP upgrade, then MISO requires each interconnection customer to pay a pro rata share of the incremental costs of additional upgrades
- Interconnection customers not approved for cost recovery are required to pay for 90% of all high voltage (345kV and above) network upgrades and 100% of lower voltage upgrades needed to interconnect their resource
- In cases where interconnection is not eligible for rate recovery, MISO has developed options to facilitate merchant upgrades
 - Common Use Upgrades
 - Shared Network upgrades

Common Use Upgrades (CUUs) and Shared Network Upgrades (SNUs)

- CUUs allow multiple resources to collaborate to build a network upgrade that benefits all generators that want to interconnect in that location
 - Assumes that all parties interested in building the network upgrade are known at the time the upgrade is being built
- SNUs are the MISO's solution to the “first mover/late comer” problem (i.e. one interconnection customer free riding on another's merchant network upgrade)
 - Allows the “first mover” a five year window after the in-service date of the upgrade, within which the “late comer” will be required to pay back their fair share of the upgrade costs incurred by the “first mover”

The ISO Straw Proposal

Lorenzo Kristov

Principal, Market & Infrastructure Policy

Central design concept is to provide a reasonable, transparent basis for determining customer cost responsibility for interconnection-driven upgrades.

1. Within the TPP, the ISO identifies public-policy objectives for planning, and alternative resource portfolios that can meet the policy objectives.
2. The TPP determines transmission elements needed to support each resource portfolio, and then selects Category 1 elements based on “least regrets” criteria.
3. Latest GIP cluster is overlaid on comprehensive plan, and where customers’ interconnection needs are met by the plan, their upgrade costs are paid by ratepayers.
4. To the extent customers require incremental upgrades beyond the comprehensive plan, customers will be required to pay costs without ratepayer reimbursement.

The framework for the integrated TPP-GIP is structured as three sequential stages.

Stage 1. GIP cluster submission window and study process

- Provide study results to customers and to TPP
- Two options for study process
- Customers decide whether to proceed to next stage

Stage 2. TPP studies and creation of comprehensive plan

- Overlay GIP cluster against final plan
- Identify incremental upgrades needed to interconnect full cluster
- Estimate costs of incremental upgrades

Stage 3. Allocate shares of ratepayer funded transmission capacity among cluster projects

- Determine customer cost shares for incremental upgrades
- Provide for reimbursement from customers later in queue

Straw proposal offers two options for consideration for Stage 1 GIP study process.

- GIP study process should:
 - Identify network upgrades needed for all cluster members at requested deliverability
 - Establish maximum upgrade cost for each generation project, absent ratepayer-funded capacity from transmission plan
 - Provide effective filtering so that most viable projects continue to next stage
- Option 1A – Retain today’s two-phase GIP studies
 - Requires 24 months from close of cluster window to Board approval of comprehensive transmission plan
- Option 1B – Design one-phase GIP study process
 - Requires 15-16 months from cluster window to final plan

Stage 2 will preserve RTPP provisions approved in 2010, with narrow changes needed.

- TPP follows existing provisions to identify reliability, policy-driven, economic elements, other tariff categories
- ISO and CPUC collaborate to specify resource portfolios to meet policy objectives
- Network upgrades identified in GIP study and enhanced or not changed in TPP retain GIP-driven designation
- TPP addresses interconnection or deliverability needs of portfolio MW in each study area, not needs of specific customers
- ISO compares cluster customers electing to remain in queue to final plan to determine customer project MW amount in each area served by final plan
- ISO determines incremental network upgrades needed to meet needs of total MW of all remaining customer projects, and estimates costs of such upgrades

Stage 3 provides 3 options for allocating benefits of ratepayer-funded transmission to customers.

- Example. Suppose 2000 MW of generation projects in a study area remain in queue after GIP study, and final plan includes ratepayer-funded upgrades for 800 MW
 - ISO identifies incremental upgrades and costs for 1200 MW
- Option 3A – Allocate 800 MW of capacity to first projects to achieve specified milestones; other 1200 pay shares of incremental cost
- Option 3B – Allocate shares of 800 MW (and shares of incremental cost based on flow impacts) to all 2000 MW
- Option 3C – Conduct auction to be connected via 800 MW plan transmission; refund auction payment at COD.

Stage 3 provides 2 options for benefits accorded to customers who pay shares of upgrades

- First, incremental upgrades fit merchant transmission model in ISO tariff
 - Customer pays to build and retains ownership of facility
 - Facility is turned over to ISO operational control for scheduling
 - Facility is turned over to a PTO for maintenance
 - Customer is eligible for Option CRRs for capacity added to grid
- Second, Option 3E would adopt provisions for later customers to repay facility owner for benefits received from incremental upgrades, based on flow impacts
- Option 3D would not adopt such provisions, but would allow facility owner to resell its CRRs.

Transition to the New TPP-GIP Framework

Lorenzo Kristov

Principal, Market & Infrastructure Policy

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

Assuming:

- Board approval December 2011
- FERC filing January 2012
- FERC approval March 2012
- Clusters 1-2 would not be affected by new framework
- Cluster 5 would open and proceed completely under new framework
- Explore the possibility of applying the new framework to Clusters 3-4 by delaying the start of GIP Phase 2 study process until after FERC decision.

Straw proposal outlines potential approach for applying new framework to Clusters 3-4.

- Cluster 3-4 customers would be asked to decide whether to proceed under new framework, with potential cost for non-ratepayer-funded incremental upgrades, or to drop out of the queue
- Customer decisions would be informed by the following to help assess potential for ratepayer funded upgrades:
 - GIP Phase 1 study results
 - Final comprehensive plan for 2011/2012 planning cycle
 - Initial formulation of policy objectives for 2012/2013 cycle
- Consider appropriate compensation for customers that elect to exit the queue based on adoption of new rules.

Next steps

Mercy Parker Helget
Senior Stakeholder Engagement and Policy
Specialist

Comment Template Information

- A template has been posted for your use in providing comments on this initiative. Please fill it out and return to the TPP-GIP@caiso.com mailbox by August 4.
- The template indicates specific questions on which we are seeking your input, and provides additional space for you to comment on any other aspects of this initiative.

The next near-term milestones are shown below

REVISED DATES

Date	Milestone
September 12	Post Revised Straw Proposal
September 19	Stakeholder Meeting on Revised Straw Proposal
September 26	Stakeholder Comments Due on Revised Straw Proposal