

Stakeholder Process: Dynamic Transfers Summary of Submitted Comments

Stakeholders submitted thirteen rounds of written comments to the CAISO on the following dates:

12/14/2009	6/10/2010	9/7/2010	12/27/2010	4/15/2010
3/31/2010	6/30/2010	10/3/2010	2/8/2010	
5/13/2010	7/28/2010	12/3/2010	3/11/2010	

Stakeholder comments are posted at: <http://www.caiso.com/27b9/27b980b1477b0.html>

Parties that submitted written comments:

Alliance for Retail Energy Markets	Center for Energy Efficiency and Renewable Technologies	Sempra Generation
Bay Area Municipal Transmission	Dynegy	"Six Cities"
Calif. Dept. of Water Resources	Idaho Power	Sacramento Municipal Utilities District
Calif. Energy Resource Scheduler	Imperial Irrigation District	Transmission Agency of Northern Calif.
Calif. Municipal Utilities Assoc.	LS Power	US Dept. of Energy, Berkeley Site
CPUC Staff	NextEra Energy	Western Area Power Administration
Calif. Wind Energy Assoc./	Pacific Gas and Electric	Western Power Trading Forum
Large-scale Solar Assoc.	Powerex	Xcel Energy
Calpine	Southern California Edison	ZGlobal Energy
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This document's summary of stakeholder comments summarizes the parties' position statements on subjects described in Management's proposal to the ISO Board of Governors.

In-person stakeholder meetings were held on the following dates:

12/7/2009	3/17/2010	5/6/2010	5/27/2010	2/25/2011
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Stakeholder conference calls were held on the following dates:

6/18/2010	7/21/2010	8/23/2010	10/6/2010
11/19/2010	12/17/2010	2/1/2011	4/8/2011

Market Surveillance Committee opinion on management of requests for dynamic transfers was adopted in a conference call on 8/5/2010.

Attachment A: Dynamic Transfers: Stakeholder Matrix

	California Municipal Utilities Association	California Public Utilities Commission Staff	California Wind Energy Association and Large-scale Solar Association
Overall Proposal	Supports this initiative as a policy priority to promote regional approach to renewable procurement.	Effective use of dynamic transfers will unquestionably be important for achieving California's renewable portfolio standard goals.	Strongly support ISO's initiative. Dynamic transfers will be essential for meeting renewable portfolio standards.
Transmission Reservation	No comments	Supports proposal as reasonable for low renewable penetration. At higher level, intra-day and intra-hour scheduling with more consistent WECC-wide market rules may be needed.	ISO should manage transmission capacity as is done within ISO. Transmission reservations for dynamic transfers impose unnecessary requirements that do apply to resources within ISO.
Scheduling Updates and Forecasting	No comments	Supports proposed data requirements to support forecasting. Dispatchable resources will be needed to fill in under-used space on interties.	Supports proposed options.
Dispatchability Requirements and Curtailment Rules	No comments	Supports proposal.	Supports proposal to first use economic bids to manage congestion. Transmission reservations should not affect congestion management.
Locational Pricing	No comments	No comments	No comments
Pro-rata Allocation of Deviations between Balancing Authorities	No comments	No comments	No comments
Aggregation of Conventional and/or Renewable Resources	No comments	Supports proposal.	No comments
Generator-Only Balancing Authorities	No comments	Supports proposal.	No comments
Dynamic Exports	Reciprocal import and export policies are required.	Encourages pilots.	No comments
Layoffs from Pseudo-ties	No comments	No comments	No comments
Multiple Dynamic Schedules	No comments	No comments	Supports proposal.
Non-firm Transmission	No comments	Allowing use of non-firm transmission increases options for market participation, but outcome is uncertain.	Supports proposal for dynamic schedules. Proposal lacks clarity for pseudo-ties.
Documentation for Ancillary Service Certification	No comments	No comments	No comments
Other Issues	ISO effort must dovetail with neighboring balancing authorities, particularly the Dynamic Scheduling System.	CPUC Staff agrees with the MSC conclusion that west-wide harmonization of policies for balancing services should be a high priority.	No comments

Attachment A: Dynamic Transfers: Stakeholder Matrix

	Calpine	Center for Energy Efficiency and Renewable Technologies	Imperial Irrigation District
Overall Proposal	Supports proposed expansion of dynamic transfers.	Commends ISO for this undertaking and for responsive stakeholder process.	Supports ISO's development of dynamic transfers, and requires this capability.
Transmission Reservation	No comments	Should manage transmission like is done within ISO	No comments
Scheduling Updates and Forecasting	No comments	No comments	No comments
Dispatchability Requirements and Curtailment Rules	Decremental dispatch capability should be required, in order similar to proposal. The term "operating order" should be clearly defined.	No comments	No comments
Locational Pricing	No comments	No comments	Required data should not extend beyond data required for generators.
Pro-rata Allocation of Deviations between Balancing Authorities	No comments	No comments	No comments
Aggregation of Conventional and/or Renewable Resources	Supports proposal.	No comments	No comments
Generator-Only Balancing Authorities	Supports proposal.	No comments	No comments
Dynamic Exports	Supports proposal.	No comments	No comments
Layoffs from Pseudo-ties	No comments	No comments	No comments
Multiple Dynamic Schedules	Supports proposal.	No comments	No comments
Non-firm Transmission	To maintain historical market practices, ISO should require firm transmission.	No comments	No comments
Documentation for Ancillary Service Certification	No comments	No comments	No comments
Other Issues	No comments	Supports proposed use of ISO's existing congestion management system to manage intertie capacity for dynamic transfers, since it is exemplary in its ability to optimally allocate existing transmission.	In studies of dynamic transfer capability, expertise is available through conferring with neighboring balancing authorities. ISO should adopt Dynamic Scheduling System developed through Joint Initiatives to fully integrate dynamic transfers.

Attachment A: Dynamic Transfers: Stakeholder Matrix

	LS Power	NextEra Energy	Pacific Gas and Electric
Overall Proposal	ISO has established workable framework for intermittent dynamic transfers.	Strongly supports proposed approach to expand dynamic transfers to variable resources, essential in meeting renewable energy goals.	Supports ISO objectives. Dynamic transfer of intermittent resources supports requirements for renewable resources.
Transmission Reservation	Supports proposal.	No comments	Supports proposal's assurance of reliability, information for congestion management, and settlement mechanism. Transmission reservation creates risks for market performance, which need monitoring and possibly mitigation.
Scheduling Updates and Forecasting	Supports proposed options.	No comments	Supports proposed availability and interaction of scheduling options, but need more detail.
Dispatchability Requirements and Curtailment Rules	Supports proposal. The term "operating order" should be clearly defined.	Supports proposal.	Supports proposal to require dynamic transfers to decrease output as ISO instructs. Agrees with dispatching to fill unused capacity, but risks need to be monitored.
Locational Pricing	Supports proposal.	No comments	Supports proposal.
Pro-rata Allocation of Deviations between Balancing Authorities	Supports proposal.	No comments	Supports proposal.
Aggregation of Conventional and/or Renewable Resources	Supports proposal.	Supports proposal.	Supports proposal.
Generator-Only Balancing Authorities	Supports proposal.	No comments	No comments
Dynamic Exports	No comments	No comments	Supports proposal.
Layoffs from Pseudo-ties	Supports proposal.	No comments	Would be concerned if layoffs impose firming and shaping costs on ISO.
Multiple Dynamic Schedules	No comments	No comments	Supports proposal.
Non-firm Transmission	No comments	No comments	Supports proposal.
Documentation for Ancillary Service Certification	No comments	No comments	No comments
Other Issues	Supports ISO's congestion management as well-understood and market-based. Administrative allocation to manage requests for dynamic transfers is not needed. All dynamic transfers should qualify for resource adequacy based on intertie import capability.	Supports GE study as solid technical assessment, concluding no limit is needed on dynamic transfers. Supports proposal to not limit requests for dynamic transfers. Developing eligibility criteria would be contentious. Further explanation of resource adequacy eligibility for dynamic transfer resources would be helpful.	Study showed no operational limits on dynamic transfers. Differences with other studies should be explored. Advocates interim dynamic transfer limit. Supports publish enrollment. Efficient intertie use requires cooperation with neighboring entities.

Attachment A: Dynamic Transfers: Stakeholder Matrix

	Powerex	Southern California Edison	Sempra Generation
Overall Proposal	Request extending stakeholder process.	Majority of proposal is well developed and provides required flexibility. Proposal will be basis for efficient, market based utilization of interties.	No comments
Transmission Reservation	Transmission reservation must reflect maximum delivery for compliance with WECC standards. Allocation of transmission reservations should use market mechanism, and promote efficient use of intertie capacity.	Supports proposal.	No comments
Scheduling Updates and Forecasting	No comments	Supports proposal, which will provide incentives for forecasting and be useful for ramping.	Supports proposed requirements for data to support forecasting.
Dispatchability Requirements and Curtailment Rules	Supports proposal.	Supports proposal to base compliance on operating orders.	Supports proposal to base compliance on operating orders.
Locational Pricing	ISO should not price based on location.	Supports proposal. ISO Market Monitoring should follow prices and report any anomalies.	No comments
Pro-rata Allocation of Deviations between Balancing Authorities	No comments	Supports proposal.	No comments
Aggregation of Conventional and/or Renewable Resources	Supports aggregation, but ISO should not limit aggregations based on location.	Supports proposal.	No comments
Generator-Only Balancing Authorities	Generation-only balancing authorities should be treated equally.	Supports proposal.	No comments
Dynamic Exports	No comments	Supports further study as proposed.	No comments
Layoffs from Pseudo-ties	Supports proposal.	Supports proposal.	No comments
Multiple Dynamic Schedules	No comments	Supports proposal.	No comments
Non-firm Transmission	No comments	Neutral.	No comments
Documentation for Ancillary Service Certification	CAISO is not acquiring sufficient operating reserves to integrate intermittent energy. Supports testing and verification proposal.	Supports proposal.	No comments
Other Issues	The ISO should work with Pacific Northwest organizations to coordinate dynamic transfer capability studies. Supports proposal to not restrict dynamic transfer agreements to intertie capacity. Resources that meet tariff and technical requirements can make economic decisions to participate through congestion management.	Supports GE study results. ISO should continue balancing administration & market forces. Supports conclusion of no limits on dynamic transfers beyond intertie capacity, but monitor impacts and publish enrollments. Encourages involvement in Joint Initiatives' Dynamic Scheduling System and intra-hour scheduling, and alignment of bid submittal.	Supports proposed allocation of intertie capacity using ISO congestion management.

Attachment A: Dynamic Transfers: Stakeholder Matrix

	Six Cities (Anaheim, Azusa, Banning, Colton, Pasadena, Riverside)	Sacramento Municipal Utilities District	Transmission Agency of Northern California
Overall Proposal	Generally supports the proposal's concepts. Facilitating dynamic transfers is essential for renewable portfolio standards compliance.	Dynamic transfer has strong regional interest. Supports proposed treatment of pseudo-ties and underlying dynamic transfer policy.	Generally supports this initiative to integrate renewable resources.
Transmission Reservation	Need more detail concerning implementation	ISO should not allow dynamic transfers to encroach on transmission rights of non-ISO entities.	No comments
Scheduling Updates and Forecasting	Supports proposal to allow schedule updates, as proposed.	No comments	No comments
Dispatchability Requirements and Curtailment Rules	Supports proposal.	No comments	No comments
Locational Pricing	No comments	Requested clarification of required data.	No comments
Pro-rata Allocation of Deviations between Balancing Authorities	No comments	No comments	No comments
Aggregation of Conventional and/or Renewable Resources	No comments	No comments	No comments
Generator-Only Balancing Authorities	No comments	No comments	No comments
Dynamic Exports	No comments	Supports proposal.	No comments
Layoffs from Pseudo-ties	No comments	Supports proposal to place treatment of existing pseudo-ties into tariff.	No comments
Multiple Dynamic Schedules	No comments	No comments	No comments
Non-firm Transmission	No comments	No comments	No comments
Documentation for Ancillary Service Certification	No comments	No comments	No comments
Other Issues	<p>ISO should take the lead in coordination with neighboring balancing authorities to avoid inconsistencies, inefficiencies, or delays.</p> <p>Support proposal to apply existing method of import capacity allocation.</p>	<p>The study conclusions on impacts of dynamic transfers on interties are generally consistent with expectations. Further study useful.</p> <p>Dynamic transfer has strong regional interest (shown by joint development of the Dynamic Scheduling System), as well as operational implications. Coordination is needed to avoid impacts on neighbors.</p>	<p>Additional analyses would be useful. The ISO should work closely with neighboring balancing authorities and others on further planning and operation studies.</p> <p>ISO should continue to coordinate with neighbors and not violate intertie agreements.</p>

Attachment A: Dynamic Transfers: Stakeholder Matrix

	Western Power Trading Forum	Xcel Energy	ZGlobal Energy
Overall Proposal	Ability to accommodate dynamic imports and exports is important for renewable energy development for California and entire WECC.	Supports ISO's development of dynamic transfer capabilities.	No comments
Transmission Reservation	Reserving capacity for maximum delivery could lead to inefficient use of transmission and is unnecessary. Real-time delivery can be managed by congestion management and be subject to curtailment.	No comments	No comments
Scheduling Updates and Forecasting	Supports proposal to allow variable resources to update forecasts of availability. Price responsive load and electric vehicles may benefit from similar flexibility.	No comments	No comments
Dispatchability Requirements and Curtailment Rules	No comments	No comments	No comments
Locational Pricing	No comments	No comments	No comments
Pro-rata Allocation of Deviations between Balancing Authorities	No comments	No comments	No comments
Aggregation of Conventional and/or Renewable Resources	No comments	No comments	No comments
Generator-Only Balancing Authorities	No comments	No comments	No comments
Dynamic Exports	No comments	No comments	No comments
Layoffs from Pseudo-ties	No comments	No comments	No comments
Multiple Dynamic Schedules	No comments	No comments	No comments
Non-firm Transmission	Like firm transmission, resources using non-firm transmission can also deliver energy through real-time dispatch.	No comments	No comments
Documentation for Ancillary Service Certification	No comments	No comments	No comments
Other Issues	Supports conclusion that technical factors do not limit dynamic transfers into the ISO. Available capacity will also depend on arrangements with neighboring balancing authorities. Supports market-based methods for distributing dynamic transfer.	Supports proposal to apply consistent dispatch principles within ISO and to dynamic transfers, and to account for limitations through clear entry qualifications and established congestion management. ISO should not limit or pre-allocate capability.	Resource owners should be able to execute dynamic scheduling agreements, as well as scheduling coordinators.

Attachment A: Dynamic Transfers: Stakeholder Matrix

	8Minutenergy	Management Response
Overall Proposal	Strongly support ISO's initiative. Dynamic transfers will be essential for meeting renewable portfolio standards.	Even though most stakeholders advocate a change in some area, there is broad support for adopting the proposal.
Transmission Reservation	ISO should manage transmission capacity as is done within ISO. Transmission reservations for dynamic transfers impose unnecessary requirements that do not apply to resources within ISO.	NERC and WECC standards establish transmission reservations on interties as part of scheduling dynamic transfers, but not within ISO. Existing tariff sets transmission reservations equal to energy schedules, which may leave no room for renewable resources' variation in output. WECC standard states transmission reservation should be the expected maximum delivery, but does not prevent actual energy delivery from exceeding transmission reservation.
Scheduling Updates and Forecasting	Support proposed ability to dispatch variable resources based on current delivery.	Management proposes two options to support different market participant needs: dispatching at current delivery to simply track generators' variable output, or dispatching from resource's forecast to reflect factors including firming & shaping by external resources.
Dispatchability Requirements and Curtailment Rules	Supports proposal.	Proposal ensures decremental dispatch capability. Proposal can also maximize transmission use if dispatchable bids are available. Tariff filing will consider whether to clarify tariff's existing definition of "operating order".
Locational Pricing	No comments	Locational pricing is a foundation of ISO's market design, to reflect value to ISO system, and is existing practice. Data for external balancing authorities is obtained from WECC's existing network model, and resource data is obtained from resource owner. ISO constantly monitors market outcomes.
Pro-rata Allocation of Deviations between Balancing Authorities	No comments	Pro-rata allocation of deviations is existing contract-by-contract practice, and will be placed in tariff.
Aggregation of Conventional and/or Renewable Resources	No comments	Limiting aggregations to locations with similar impacts on ISO system is necessary for accurate congestion management within ISO.
Generator-Only Balancing Authorities	No comments	Management's proposal is to evaluate dynamic transfers from generation-only balancing authorities on the same basis as other dynamic transfers.
Dynamic Exports	No comments	Based on successful experience through New Melones pseudo-tie pilot, Management proposes to place dynamic exports in tariff. ISO does not have experience with dynamic transfer of loads, and would limit this to pilots, to gain experience.
Layoffs from Pseudo-ties	No comments	Based on successful experience through Sutter pseudo-tie pilot, Management proposes to place pseudo-tie imports in tariff. Management will monitor market results and propose changes if needed.
Multiple Dynamic Schedules	Supports proposal.	This proposal results from a stakeholder request.
Non-firm Transmission	No comments	Management proposes to allow non-firm transmission due to uncertainty of day-ahead forecasting of intermittent resources and potential that firm transmission would be unavailable after day-ahead.
Documentation for Ancillary Service Certification	No comments	ISO procures reserves in accordance with NERC and WECC standards, and operational requirements if these are more stringent. If standards change, ISO will continue to meet the revised standards.
Other Issues	Supports GE study's conclusion that ISO system can manage variation of dynamic transfers' delivery. No need to delay dynamic transfer implementation due to operational concerns.	Management briefed WECC committees and neighboring areas that would host intermittent dynamic transfers on study of ISO's dynamic transfer capability, and participates in Northwest's Dynamic Transfer Capability Task Force. Given GE study's conclusion that ISO does not need to limit intermittent dynamic transfers, existing congestion management is sufficient to manage requests for dynamic transfers. Establishing queuing mechanisms would be complex. ISO will monitor market and impose moratorium if needed. The ISO coordinates with other entities through WECC committees and individually, and considers opportunities to align business systems. Resource adequacy was discussed further on 4/8/2011 and aligns qualifying capacity with internal renewable resources.