California ISO

Stakeholder Comments Template

Market Seams Workshop

This template has been created for submission of stakeholder comments on the Market Seams Workshop that was held on Oct 22, 2026. The Stakeholder meeting presentation and other information related to this initiative may be found on the webpage at: https://www.caiso.com/meetings-events/topics/market-seams

Upon completion of this template, please submit it to ISOStakeholderAffairs@caiso.com.

Submissions are requested by close of business on **November 5, 2026**

Submitted by	Organization	Date Submitted
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Please provide your organization's comments on the following issues and questions.

1. Please provide your organization's feedback on the Joint Market Seams Workshop that was held on October 22, 2026.

   Portland General Electric Company (PGE) appreciates the continued efforts of CAISO and SPP to advance discussion of Western seams coordination. The October 22 workshop provided useful additional detail regarding the Western Interconnection Loading Relief (WLR) process, including the proposed use of the Enhanced Curtailment Calculator (ECC), treatment of tagged transactions and generation-to-load impacts, and the interaction between WLR relief obligations and market redispatch. CAISO and SPP explained that WLR is intended to operate as an RC-directed process alongside market optimization and other congestion-management processes, with tags curtailed through E-Tag and GTL relief obligations communicated to balancing authorities and markets for redispatch.

   However, PGE believes the workshop also demonstrated that considerable work remains to explain the operational interaction between reliability coordination, transmission service, and market operation. The conceptual framework presented at the workshop is helpful, but participants now need to see how these processes will actually work together under realistic Western operating conditions. This is particularly

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important because responsibility for identifying reliability constraints, administering transmission service, implementing WLR relief, and redispatching the markets is distributed among RCs, transmission service providers, balancing authorities, and the two market operators.

For example, during the workshop PGE's Sanman Rokade raised a concern about a circumstance in which transmission capability supporting a market transfer is curtailed but could subsequently appear available for other scheduling or market redispatch before the market transfer's after-the-fact tag reflects the curtailment. The discussion did not, in PGE's view, fully demonstrate how that condition would be prevented across all affected ETSRs. This issue is particularly important because the workshop materials state that a market transfer retains the priority of the transmission service supporting it, while WLR separately calculates tag, dynamic-transfer, and GTL impacts and sends relief obligations to BAs and markets for redispatch.

PGE therefore requests additional technical detail and worked examples addressing at least the following:

1. **Multiple transmission-service priorities and ETSRs.** How will WLR and the ECC account for a transaction or market transfer that traverses multiple transmission-provider legs with different transmission priorities, particularly where different markets represent transfer capability differently, including TSP-based and ATC-based ETSR constructs? PGE would like to understand which priority controls the market transfer, how that priority is communicated among the affected systems, and how each affected ETSR is adjusted following a curtailment.
2. **TTC reductions and replacement schedules.** How will the ECC and the market systems coordinate an interconnection-wide reduction in Total Transfer Capability when curtailed capability could otherwise be replaced by a parallel schedule or subsequent market redispatch? Additional examples should show how the RC-directed relief obligation persists through subsequent market solutions rather than allowing the market to recreate the loading that prompted the reliability action.
3. **Interaction between WLR and market optimization.** The October 22 materials describe WLR as operating alongside market optimization and show relief obligations being incorporated into market constraints. PGE requests a more complete end-to-end example showing which process controls when a market solution, transmission derate, WLR instruction, or other reliability action occurs simultaneously or in close succession, and how CAISO, SPP, the applicable RCs, BAs, and TSPs communicate and reconcile those actions.
4. **Dynamic schedules.** PGE encourages CAISO and SPP to evaluate whether additional dynamic-schedule functionality is necessary in the ECC to accurately capture real-time market-transfer impacts. The workshop materials acknowledge limitations in current dynamic-schedule information and identify real-time acquisition of dynamic-schedule MW and improved calculation of dynamic-transfer impacts as part of the WLR/ECC work. PGE believes this capability should be demonstrated before reliance on the WLR framework for seams coordination.
5. **Untagged schedules.** Some inter-BA schedules exist in real time but are not tagged until after the fact. For example, this happens when adjacent WEIM entities

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allow the WEIM to use any remaining ATC that is not tagged in real time. These schedules are intended to be the "least firm" schedules in the system, because the ATC goes away before tags are curtailed when TTC is reduced. However, relying on tag curtailments effectively treats these schedules as the "most firm," because every tagged schedule could be curtailed while the ATC is left untouched. PGE encourages CAISO and SPP to evaluate how calculated dynamic transfers that are not associated with tags in real time can be managed alongside tagged dynamic transfers and tagged non-dynamic transfers whenever WLR actions do not include coordinated TTC reductions.

6. **Testing and validation.** PGE requests a specific testing plan, including when integrated testing will begin, its duration, participating entities, scenarios to be tested, and the criteria that CAISO and SPP will use to determine that the seams processes are operationally ready. The October 22 materials describe an ECC benchmarking effort intended to compare real-time flows against calculated impacts and improve the treatment of E-Tags, dynamic transfers, and GTL. PGE believes that work should be complemented by scenario-based testing of the interaction among the ECC, RC actions, market systems, ETSRs, E-Tags, and TSP/BA processes.

More broadly, PGE encourages CAISO and SPP to approach stakeholder questions about these interactions as design and implementation issues that need to be demonstrated rather than assumptions that the existing processes will work together as intended. The questions raised during the workshops reflect legitimate operational concerns about a future in which two organized markets operate on the same interconnected transmission system. Providing detailed examples, documenting how identified issues will be resolved, and explaining where additional systems or business-process changes are necessary will help build confidence in the seams framework.

2. Please provide any suggestions for content or format for upcoming Join Market Seams Workshops.

PGE supports CAISO and SPP's proposal to continue the Joint Market Seams Workshops in 2027. The October 22 materials indicate that the organizations anticipate continuing the workshops quarterly with hybrid participation. The next phase should place greater emphasis on technical implementation, testing, and operational demonstrations rather than primarily conceptual descriptions of the seams framework.

PGE recommends:

- **End-to-end operational scenarios.** Begin with an actual constraint or transmission derate and walk through, step by step, what the RC sees, what the ECC calculates, what happens to E-Tags and ETSRs, what each market receives, how each market redispatches, and how the RC verifies that the requested relief was achieved.

- **Failure and edge cases.** Include scenarios involving multiple TSPs and transmission priorities, TTC reductions, replacement schedules, concurrent market redispatch, dynamic schedules, conflicting or stale information, and situations in which the two markets initially produce incompatible responses to the same Western constraint.
- **Direct participation by RCs, TSPs, and BAs.** Market-operator agreements are important, but implementation of many seams functions will depend on entities responsible for transmission service and reliability. PGE recommends including the affected RCs, TSPs, and BAs directly in the technical discussions. This is consistent with concerns raised during the October 22 discussion that implementation responsibility does not reside solely with the market operators.
- **Dedicated technical working sessions.** PGE recommends smaller technical sessions between the quarterly public workshops where market operators, RCs, BAs, and TSPs can work through issues such as ETSR configuration, pseudo-ties and dynamic schedules, transmission curtailments, WLR instructions, and ECC treatment. PGE specifically raised the value of such technical discussions during the October 22 workshop.
- **A published testing roadmap.** Upcoming workshops should identify the dates, duration, participants, scenarios, and success criteria for seams testing, followed by reporting of test results and any resulting changes to systems or procedures.
- **An issues and resolution tracker.** CAISO and SPP should maintain a public list of significant stakeholder questions raised during the workshop series, identify the entity responsible for resolving each issue, and indicate whether the issue is open, under development, or resolved. This would provide continuity between quarterly workshops and make clear how stakeholder feedback is being incorporated.

The October 22 workshop was most useful when it moved from concepts to concrete WLR examples. The presentation itself demonstrated why that approach matters: its illustrative cases progressed from independent market dispatch that overloaded a shared transmission element to calculation of WLR relief and ultimately incorporation of the relief obligation into market constraints. PGE recommends that future workshops continue in that direction, but use increasingly realistic Western operating scenarios and carry each example all the way through the RC, transmission, scheduling, market, and verification processes.