

Parallel Flows Represent a Major Seams Issue Within EDAM That Requires Policy Resolution Prior to Developing Detailed Technical Solutions

Introduction

Much of the public narrative around Western seams has focused on the seams that will exist between EDAM and Markets+. In Powerex's view, this focus is largely misplaced, as the dominant seams in the West have always been – and will continue to be – the seams that exist between the dozens of transmission service providers (TSPs) and the dozens of balancing authorities (BAs) in the West. Both the launch of EDAM and the launch of Markets+ change how these seams are managed, and who gets to determine the outcomes at the seams, including the allocation of trade benefits and costs. This current EDAM stakeholder process illustrates this point in practice. ***It has also revealed that one of the most significant and consequential seams issues in the West lies entirely inside the EDAM footprint, at the boundaries between the different TSPs participating in that market.***

Comments

It has long been recognized that parallel flows on neighboring transmission systems are an inevitable consequence of an interconnected AC grid with multiple TSPs. This parallel flow seams issue has existed for decades, and has been addressed by a longstanding, reliable and equitable approach to this seams issue. Specifically, when a TSP builds new transmission facilities or upgrades existing facilities, its impact on neighboring transmission systems is evaluated, and the TSP may be required to take steps to mitigate these impacts. At the conclusion of this process, WECC—an independent and impartial entity—approves a path rating (for the major transmission paths in the West). While operational procedures such as unscheduled flow mitigation may apply from time to time, the TSP does not face any further financial liability to neighboring TSPs for parallel flows that inevitably arise from the use of its approved path. This has been the longstanding process for managing parallel flows across TSP-to-TSP seams in the West, and has generally been accepted throughout the industry.

In practice, the largest and most impactful occurrences of parallel flow across TSPs' service territories in the West are the parallel flows in the North-to-South and South-to-North directions occurring between the California ISO, PacifiCorp, NV Energy, and Idaho Power transmission systems. Like other instances of parallel flow impacting neighboring TSPs' systems in the West, ensuring equitable outcomes of this seams issue has been accomplished proactively via the WECC path rating process, which is completed prior to transmission upgrades and new lines coming into service. EDAM does not "eliminate" this seams issue: PacifiCorp, NV Energy, and the California ISO (and potentially Idaho Power if it elects to join EDAM) will continue to be separate and distinct TSPs, recovering their specific costs from their particular customers and ratepayers. But EDAM rules are currently being considered that would fundamentally alter the longstanding impartial and equitable approach to managing this seams issue, and replace it with a new framework. Critically, this new framework would not be the result of peer discussions and

negotiations between affected TSPs (where the California ISO would be only one TSP among several), but instead would be the result of the California ISO's stakeholder process.

The stakes for affected TSPs, and the reason that the California ISO's process is problematic, are grounded in a structural asymmetry: neighboring systems, including the PacifiCorp and NV Energy transmission systems, have been built out to accommodate their own use and the parallel flows caused by their neighbors with limited resulting congestion (and with further upgrades and new lines in development). In contrast, the California ISO has not yet upgraded its transmission system to accommodate the California ISO's own use of its system together with the parallel flows caused by its neighbors. The result is that North-to-South and South-to-North congestion, and the costs associated with it, occur predominantly on the California ISO system. The California ISO's recent 2025-26 Draft Transmission Plan highlights that there has been more than a ten-fold increase in the number of projected congested hours for the most limiting element of Path 15 on its transmission system, and also estimates that aggregate congestion costs for Path 15 will reach \$1.8 billion per year by 2040.¹ This means that it is predominantly customers of *California's* transmission system that would financially benefit from changing the longstanding approach of not requiring compensation for parallel flows across the TSP-to-TSP seams; the transmission customers and retail ratepayers of PacifiCorp, NV Energy, and Idaho Power would all be harmed by such a change.

The dollars at stake in how this issue is resolved—and the importance of ensuring it is resolved equitably—cannot be overstated. The California ISO's Stage 2 analysis put the potential value of parallel flow congestion from PacifiCorp day-ahead schedules at \$49-\$103 million per year.² The Department of Market Monitoring recently published its own analysis, and estimated that the payments for parallel flow congestion for NV Energy would be two to three times as large as those for PacifiCorp.³

But the full impact of any EDAM policy to charge for parallel flow congestion would extend beyond the charges applied to spot market transactions; it also has the potential to shift the costs and benefits of investments in major transmission projects, including projects specifically undertaken to increase connectivity in the critical North-to-South and South-to-North directions. For example, NV Energy received regulatory approval for—and committed its transmission customers and retail ratepayers to fund—the Greenlink project, under the longstanding expectation that NV Energy would be able to provide transmission service to affiliated and unaffiliated customers, without requiring compensation to neighboring TSPs for parallel flow when customers use the Greenlink facilities. Similarly, the Boardman-to-Hemingway project

¹ California ISO 2025-2026 Draft Transmission Plan, at 7 and 119, Tbl. 4-1.

² California ISO Stage 2 Analysis, at 2 (finding \$2.47 million per month (increasing to \$6.96 million per month under a sensitivity case with higher transfers) of congestion rent from historical transfers between PacifiCorp East and West and a further \$1.65 million per month of congestion rent from self-scheduled generation).

³ California ISO Department of Market Monitoring, at Tbl. 2 (calculating average quarterly payments associated with parallel flow congestion from NV Energy and PacifiCorp participating resources of \$7.6 million and \$4.1 million per quarter, respectively, increasing to average quarterly payments associated with parallel flow congestion from all NV Energy and PacifiCorp resources of \$13.4 million and \$5.3 million per quarter, respectively).

being developed by Idaho Power and PacifiCorp (with the Bonneville Power Administration as a significant network service customer) was founded on that same expectation: that once the facilities are approved and placed in service, use of those facilities up to the approved WECC path rating would not incur a liability to make large net payments to neighboring TSPs for parallel flow.

EDAM rules that create a financial liability for unavoidable parallel flows can be expected to create new costs and risks for transmission customers and retail ratepayers outside California. Such EDAM rules would disturb the settled expectations underlying several multi-billion dollar transmission projects currently being developed in the region, while also creating challenges for the development of new transmission facilities outside California, and consequently for the ability to accelerate generation and load interconnections outside California. If the ultimate policy pursued by EDAM is that building new transmission facilities outside California—or interconnecting new generation or new load that rely on transmission facilities outside California—exposes entities to making new, volatile, and unhedgeable parallel flow payments to California, this will create impediments for the very investment urgently needed in the West.

Such a policy decision could also create impediments for the success of EDAM itself, as entities will recognize that they will not be required to make these potentially large net parallel flow payments to California ratepayers if they join Markets+, SPP's RTO Expansion, or remain outside any organized day-ahead market.

To be clear, Powerex does not claim that the *status quo* must be maintained, or that it is the only or even the best approach for allocating parallel flow congestion costs across the seams within EDAM. But Powerex believes that this stakeholder process must first present, discuss, and address a threshold policy question: should TSPs and their firm customers now be required to compensate neighboring TSPs for inevitable parallel flows arising simply from using their own facilities within the approved WECC path rating? This threshold policy question has not been put squarely before stakeholders, or put forward to the California ISO Board of Governors or the WEM Governing Body for approval. Powerex believes it is inappropriate for the California ISO to be driving discussions toward specific technical solutions that presume this foundational policy question has already been answered, when in fact it has not yet been asked.

The California ISO's lead role in defining proposed technical solutions and deciding which proposals have merit, before ever getting to a discussion in front of the WEM Governing Body, is also problematic. The California ISO is the TSP most impacted by parallel flows at the seams within EDAM, and its own customers stand to financially benefit from EDAM rules that depart from the longstanding practices in the West. Notably, the technical solutions suggested by California ISO staff have omitted any technical solution that would result in the longstanding "status quo" outcome (that existed prior to EDAM implementation), which would be to ensure that all congestion revenue collected from the use of transmission that falls within the path's approved WECC rating would be allocated back to the applicable EDAM Entity. This is the foundation of a solution that would "hold harmless" TSPs that elect to participate in EDAM. It is also the only approach that is consistent with the parallel flow seams resolution assumed by Brattle in the various EDAM benefits studies prepared for EDAM Entities, including the one

submitted to the Public Utilities Commission of Nevada in support of NV Energy's application to join EDAM.⁴

Powerex supports NV Energy's recommendation that the California ISO "slow down and allow sufficient time during this process to allow participants who value this effort the opportunity to effectively participate in a meaningful way." The issues underlying this stakeholder process are highly consequential, and require an appropriate amount of time for a deliberative process in order to develop an informed and equitable approach. To that end, Powerex believes that, before further discussion of specific technical solutions, there should be a transparent and inclusive policy discussion addressing whether the longstanding regional approach to parallel flows across TSP-to-TSP seams will continue to apply for entities that choose to participate in EDAM. That discussion must include all affected TSPs, with the California ISO representing its unique circumstances as a peer to other TSPs in EDAM. The discussion must also include the respective state regulators, transmission customers, and retail customer representatives of those TSPs, given the significant cost-shifting implications for ratepayers and for the benefits from multi-billion dollar infrastructure decisions.

⁴ Cross-examination testimony of John Tsoukalis before the Public Utilities Commission of Nevada, Docket No. 25-10025 (March 10, 2026) hearing transcript at Page 212, Lines 24-25, stating that his study "assumes that 100% of congestion inside the NV Energy BA is returned to NV Energy". Available at: <https://puc-onbase.nv.gov/api/Document/AftG7v13zuxg0ILAR2zjSsRs1rs5CiyqqGdsjLD8iMZIleGnnoiR5yms9mDWR8b2qw9wyhldsv3S2PBml7X2dGU%3D/?OverlayMode=View>