

**COMMENTS OF THE CALIFORNIA WIND ENERGY ASSOCIATION
AND THE LARGE-SCALE SOLAR ASSOCIATION
ON THE CAISO DYNAMIC TRANSFER INITIATIVE**

The California Wind Energy Association (CalWEA) and the Large-scale Solar Association (LSA) hereby submit their joint comments on the following:

- **“Dynamic Transfer Issue Paper”** (“Paper”), CAISO’s November 30th paper on standardizing and expanding “Dynamic Transfers” – Dynamic Scheduling and Pseudo-Tie arrangements; and
- **The December 7th CAISO stakeholder meeting** to discuss the Paper.

CalWEA and LSA strongly support this CAISO initiative. Many of our members are developing renewable generation projects both inside and outside California, and we believe that both will be needed for the state to reach its ambitious Renewables Portfolio Standard (RPS) objectives.

Clearly, California must rely on renewable-energy development in other states, in addition to domestic resources, to meet RPS targets, taking advantage of technological and geographic diversity to obtain the reliable, least-cost, and least-emission solutions to obtaining a third of its power from renewable sources. It is equally clear that our ability to achieve these goals will depend, in part, on active efforts by the CAISO and other Balancing Authority Areas (BAAs) to manage integration of these renewable resources across BAA boundaries. In fact, some out-of-state utilities have stated that they will require some form of Dynamic Transfer (DT) because of their limited capacity to balance intermittent resources; to the extent that renewable power is needed from those areas to reliably and realistically achieve California’s goals, these efforts are a necessity.

California (and, as the largest BAA in California, the CAISO) will clearly benefit from this greater diversity of renewables, because it will ease the grid-management challenges that would occur otherwise. Expansion of the current DT arrangements to include intermittent renewable generation is one way that CAISO can provide this help to neighboring BAAs, and we offer below some general comments and recommendations on the issues raised in the Paper with such expansion.

However, this effort should not prevent exploration of other efforts to accommodate renewable-energy imports, including reserve- and ACE-sharing, and also more-flexible scheduling practices like intra-hour scheduling. It is critical that the CAISO work with neighboring BAAs, and ideally with the WECC as a whole, to create standardized DT and other operational mechanisms to facilitate physical movement of renewable power across BAAs.

CalWEA and LSA’s joint comments and recommendations, explained further in the remainder of this document, can be summarized as follows:

- **Resources under DT arrangements should be treated like those internal to the CAISO**, except where differences are operationally or economically justified.
- **Concerns related to intermittent resources generally must be distinguished from those specifically related to DTs.** CAISO scheduling and settlements rules applicable to DTs (including eligibility for the Participating Intermittent Resources Program (PIRP)) should reflect the latter, not the former.

- ***The CAISO should drop DT firm-transmission requirements and/or work with neighboring BAAs, to:***
 - Implement more-flexible arrangements for firm transmission reservations on those systems to applicable inter-tie points (e.g., hourly firm transmission reservations); and
 - Expand inter-tie and import capability generally.
- ***The applicability of CAISO pricing and congestion-management rules to DT transactions should be clarified.***

Resources under DT arrangements should be treated like those internal to the CAISO, except where differences are operationally or economically justified.

This is an overarching principle that should be applied to all facets of the CAISO DT initiative. Renewable-resource development in other areas for export to California is motivated mostly by California RPS requirements, and the burden on California to manage those resources will generally be no worse under DT arrangements than if the development were taking place here instead and, indeed, will be improved by the greater geographic diversity that these arrangements can enable.

This argument is especially strong for Pseudo Tie arrangements, where the resource actually becomes part of the CAISO BAA electrically. Those resources assume all the obligations of CAISO BAA resources (e.g., must-offer obligations for RA Resources, and other obligations under (Pseudo) PGA agreement); there is no reason to impose punitive charges or other requirements on them (including those related to Regulation or other integration services) that internal resources are not subject to unless the CAISO can demonstrate that they impose a greater burden on the CAISO.

Likewise, this effort should not be used as a back-door means to impose additional requirements on internal intermittent resources, as one CAISO speaker implied, under the guise of “avoiding seams issues” or other rationales.

Dynamic Scheduling arrangements are somewhat different, since those resources are not technically part of the CAISO BAA. However, as long as intermittent resources subject to those arrangements agree to abide by the relevant operational rules applied to CAISO-BAA intermittent resources – including metering, telemetry, meteorological-data provision, and compliance with CAISO dispatch orders – they should be subject to the same treatment as internal intermittent resources.

Concerns related to intermittent resources generally must be distinguished from those specifically related to DTs.

Many of the concerns cited by the CAISO with expanding DT arrangements generally seemed to be related more to increasing penetration of intermittent resources generally, rather than to DT arrangements with such resources, for example:

- ***Need for additional Regulation and load-following:*** CAISO studies have identified such concerns with increased intermittent-resource penetration on the CAISO system. The relevant question here is whether imported intermittent resources under DT arrangements would require any more of such services than those physically in the CAISO BAA. If not, then there is no need to implement additional charges or other punitive treatment of intermittent resources under DTs.

- **Compliance with CAISO curtailment/dispatch instructions:** All CAISO-area generators – including intermittent resources – are required to comply with such CAISO instructions, e.g., to avoid line overloads. CAISO should certainly apply at least the same means to ensure compliance as it applies to resources in its own area (which do not, to our knowledge, distinguish between intermittent and other resources).

The relevant question here is whether such compliance issues are different for resources under DT arrangements, e.g., whether there is any indication that the current CAISO BAA measures would be inadequate for resources under DTs. If not, then there is no need to implement additional punitive compliance measures or charges.

- **PIRP participation:** Intermittent resources under DTs would be eligible for PIRP if they were built in the CAISO BAA. The relevant question is whether there is a valid reason to exclude them here – if not, they should be eligible, as long as they meet the other requirements as CAISO BAA Participating Intermittent Resources.
- **Day Ahead scheduling requirements:** The CAISO is already planning to consider rules and provisions for “Day Ahead Scheduling of Intermittent Resources” as part of the highly ranked “Rules to Encourage Dispatchability of Wind and Solar Resources” initiative. In addition to the other reasons why DA scheduling of intermittent resources would be desirable, those coming into the CAISO across an inter-tie might find that there is little capacity available in the Hour Ahead timeframe.

There is no apparent reason to impose a DA scheduling requirement on DT imports that is not imposed on in-area resources, as long as those imports are bearing the burden of possible capacity unavailability for an HA schedule (see more on that below). Any additional considerations could be folded into the already-planned CAISO initiative.

- **Over-generation protocols:** These rules were outdated even before MRTU, and they should be revisited regardless of CAISO action on DTs. CalWEA has made this point in numerous comments, including those in several CAISO renewables-integration efforts.
- **Generator operation above schedule:** Generators can do that on the CAISO system today, and that could cause congestion and potential overloads on transmission lines. The CAISO has congestion management procedures to address that situation, which should be applied here and only changed if there’s a reason to do so (see more on this below).

The CAISO should drop DT firm-transmission requirements and/or work with neighboring BAAs on alternative solutions.

The CAISO transmission system operates without formal transmission-reservations, and there is no particular reason why firm transmission reservations should be required for DT arrangements, as long as the generators subject to them bear the risk of curtailment to the same degree as internal generators. The CAISO should eliminate this requirement, particularly if CAISO congestion-management protocols apply to DT arrangements in the case of de-rates or overloads (see below).

If the firm transmission requirement remains, the CAISO should work with other BAAs to implement more-flexible firm transmission reservations (e.g., hourly firm transmission reservations). It is unduly burdensome for intermittent resources to reserve capacity over long periods when it is only needed a third of the time. We share the concerns expressed by SCE and PG&E at the meeting that such onerous requirements could also lead to inefficient use of scarce inter-tie capacity.

Ultimately, inter-BAA capacity must be expanded in order for California to rely on renewable-resource imports from other areas to optimally meet its RPS and greenhouse-gas needs, as it does today for conventional power that meets its reliability needs. This is one key reason why the scope of the statewide conceptual transmission plan in Phase 1 of the CAISO's Renewable Energy Transmission Planning Process (RETPP) should be expanded to include increasing interstate transmission capacity, and the collaboration and decision-making should be expanded beyond the current membership of the California Transmission Planning Group (CTPG).

The applicability of CAISO pricing and congestion-management rules to DT transactions should be clarified.

The CAISO said the following during the stakeholder meeting:

- Access to inter-tie capacity will continue to be governed by the transmission rules of the host BAA.
- The CAISO would set Locational Marginal Prices (LMPs) for DT transactions, at the resource location for Pseudo Tie resources and at the applicable inter-tie for Dynamic Scheduling resources.

LMPs are related to congestion management; thus, it's not clear how the CAISO will set LMPs at resource locations beyond its borders unless it is planning to apply its congestion-management protocols for schedules into its BAA. For example, if there is a de-rate or other real-time congestion problem on an intertie where several Pseudo Tie transactions are scheduled into the CAISO, will the CAISO apply its congestion-management practices (e.g., exercising economic bids) to address the congestion, or will the host BAA address the problem using its own rules?

The CAISO framework should consider, and explicitly address, the fact that transmission services and market structure on the other side of an intertie (sending or Host BAA side) may be different than on the CAISO side (receiving BAA side). Congestion and limitations may occur on one or both sides and be resolved in different ways, depending on the respective transmission services and market structure on either side.

In the next version of the Proposal, the CAISO should explain (preferably with examples) how it intends to apply its pricing and congestion-management rules to DT transactions, and how those would interact with the rules and practices of adjacent BAAs.