



January 24, 2011

Submitted by email to the CAISO at regionaltransmission@caiso.com

RE: Comments of the Large-scale Solar Association on the CAISO's "Generation Interconnection Procedures: Deliverability Requirements for Clusters 1 & 2 – Revised Discussion Paper"

The Large-scale Solar Association (LSA) submits these comments in response to the CAISO's January 10th document "**Generation Interconnection Procedures: Deliverability Requirements for Clusters 1 & 2 – Revised Discussion Paper**" (Paper), and the discussion about the Paper at the January 17th stakeholder meeting. The Paper proposes revisions to the Cluster 1-Cluster 2 (C1/C2) Phase II Study and corresponding changes to the methodology for the upcoming Cluster 3-Cluster 4 (C3/C4) Phase II Study, as well as commensurate changes to generator cost responsibility in their respective Generator Interconnection Agreements (GIAs).

These revisions would address the current situation where generation capacity in the CAISO interconnection queue far exceeds (by orders of magnitude) the capacity that is ever likely to be built. The related interconnection studies have thus triggered large, expensive, and long-lead-time transmission upgrades to serve this generation that, likewise, will probably never be needed. The Paper proposes to resolve this problem as follows:

- **Remove expensive Delivery Network Upgrades (DNUs) that are not likely to be needed from those studies**, the Second Interconnection Financial Security (IFS) postings, and C1-C4 GIAs. Preliminary results indicate that several major transmission upgrades would be removed, based on the proposed criteria.
- **Address those DNUs later, if they are triggered by greater-than-expected generation development in the affected geographic areas**, by:
 - Treating them as policy-driven upgrades in the annual CAISO Transmission Planning Process (TPP), with no additional costs imposed on generators; and
 - Temporarily lowering Net Qualifying Capacity (NQC) for "new" generating capacity in the affected area(s) until the relevant upgrade(s) is built and in service.

LSA strongly supports the CAISO's efforts to rationalize the interconnection-study process. The proposed approach seems reasonable generally; however, LSA has some concerns and suggestions about the proposed methodology. Specifically:

- Because the CAISO is not applying this new study methodology to the Serial Queue or the Transition Cluster (pre-C1 generation), the CAISO must ensure that projects in those clusters are not treated in a discriminatory manner and that transmission needed for those projects is constructed in a timely manner according to the applicable CAISO Tariff provisions. Specifically, the CAISO should:

- Acknowledge that some of the DNUs that it proposes to remove from the studies are required for reliability and/or deliverability of generation projects with executed GIAs;
 - Provide that those upgrades will be constructed as required by the GIA as long as the generator complies with its applicable GIA obligations; and
 - Clarify that the generation associated with such upgrades is not subject to the potential NQC reductions described in the paper after they come on-line.
- Similarly, if NQC reductions are needed, the CAISO should award available deliverability to operating projects based on queue position, not the proposed “new” vs. “existing” classifications.
 - The CAISO should regularly provide information on available deliverability by area, at least on an annual basis prior to the opening of each cluster-study IR submittal window.
 - The dollar thresholds in the criteria for removing DNU from studies should be flexible.
 - The CAISO should provide more information on the expected additional GIA language needed to implement this framework.
 - The CAISO should respect queue positions when awarding deliverability in the annual NQC determination. For example, pre-C1 generation projects should receive deliverability first, even if upgrades specifically assigned to those projects are not yet completed. If the CAISO identifies new transmission upgrades that can provide deliverability – either full or partial – that deliverability must be allocated first to those projects, to avoid discrimination.

Additional explanation of LSA positions

First, the CAISO should clarify that removal of DNU associated with specific higher-queued generation projects will not delay or otherwise impact CAISO and Participating Transmission Owner (PTO) actions needed to construct those DNU if they are included in those generators’ GIAs. It is important that the CAISO do at least one of the following: (1) ensure that progress continues to be made on constructing that transmission; (2) provide re-studies **first** to pre-C1 generation projects, if the CAISO no longer believes that their plans of service are appropriate; or (3) include pre-C1 generation projects in the revised methodology. This is necessary in order to avoid:

- Discriminatory treatment of those earlier-queued projects;
- Impairing the deliverability of those earlier-queued projects, if they do reach commercial operation; and
- Creating deliverability problems for later-queued generators in those areas.

Second, the CAISO should regularly provide information on total deliverable capacity by area (e.g., the preliminary information in the Paper that the Desert Area has 6.2-9.2 GW of deliverable capacity). The Paper provides this information for two areas: the Desert Area and the San Diego/Path 43 area. It is not clear yet whether additional areas will be covered for the C1/C2 studies, but we expect that there will be removals of DNU in other areas, such as PG&E’s Kern/Fresno area, for the C3/C4 studies.

This is very useful information, and the CAISO should provide it for all areas in future studies. Specifically, as noted in the stakeholder meeting, the CAISO should consider providing such information before the opening of the Cluster 5 application window, and for future clusters as well.

Third, the CAISO's DNU dollar thresholds should not be hard and fast. For example, if a DNU is unlikely to be constructed due to permitting constraints (new ROW or other environmental issues), it should be removed (and the study revised accordingly, per the proposed methodology) even if the expected cost is under the applicable \$100 million or \$200 million thresholds.

This flexibility is especially needed because the CAISO has not yet conducted the GIP-2 effort to make the PTOs' cost-estimation methodologies more uniform. Thus, PTOs may have very different cost estimates for similar facilities that are equally unlikely to be needed. It has been LSA's experience, for example, that the cost adders for SCE facilities (e.g., 35% contingency) lead to considerably higher cost estimates than PG&E for essentially the same upgrades. It makes little sense to remove a \$100 million upgrade in the SCE area but not remove a \$90 million upgrade in the PG&E area when both upgrades might encompass the same equipment that is equally unneeded.

The CAISO should also use this flexibility to consider removal of DNUs (and the associated generation) as small as \$50-70 million that are triggered by relatively small amounts of generation, i.e., if the cost per MW of generation triggered by such upgrades is extremely high. Generation projects facing such costly upgrades likely face a high risk of failure, so these upgrades (which may nevertheless be needed by later-queued projects) would best be addressed in the TPP as policy-driven upgrades.

Fourth, the CAISO should provide more information on the additional language it will require in GIAs that are executed based on studies using the revised methodology. The additional language should:

- Provide standardized milestones that must be met for retention of deliverability; and
- Recognize the CAISO's obligation to cover any deliverability deficiencies through the annual TPP that were created by Full Capacity or Partial Deliverability generation in excess of available deliverability capacity.

Finally, LSA is concerned about the methodology that the CAISO will use to provide any "NQC haircut" for "new" generation in the annual deliverability study. The CAISO proposes to award available deliverability to GIP projects based on flow factors – relative impact on the constrained facilities – regardless of queue position. LSA believes that this methodology is unreasonable, because it:

- Could award deliverability to later-queued projects before earlier-queued projects based on construction-start or on-line dates, when the rights associated with queue position are entirely unrelated to those dates; and
- Would be inconsistent with the CAISO's interconnection study methodology. Earlier-queued projects with later construction start or on-line dates have priority over later-queued project with earlier dates in the allocation of available capacity in those studies, and it makes no logical sense to allocate deliverability in a different manner once those projects are operational.

Instead, the awards should respect the relative queue positions of the generators by awarding available deliverability to earlier-queued projects first. Serial and Transition Cluster projects should receive deliverability before projects in later clusters, and the C1-C4 awards should also be in order of queue position. However, the CAISO could use the proposed flow-factor methodology to projects in the same cluster.

The CAISO should also clarify that pre-C1 projects, which have committed under their GIAs to build the Network Upgrades required for full deliverability, will not potentially face an “NQC haircut.”