The Large-scale Solar Association (LSA) and Solar Energy Industries Association (SEIA) – together, LSA/SEIA – appreciate the opportunity to comment on the Transmission Development Forum (Forum) on January 21st, 2022.

LSA/SEIA commend the CAISO and CPUC for sponsoring the Forum, and the PTOs for their extensive participation work. The meeting was well-organized, the materials were helpful, and the presenters were knowledgeable about their projects and responded well to stakeholder questions.

LSA/SEIA’s comments concern these main topics:

**Overall format**

- Larger questions
- Written information content, including additional information needed

**Overall format**

The format – written project summaries plus presentations on upgrades most affecting new generation/storage projects – was effective and informative. Likewise, the future plans for quarterly forums are reasonable.

However, apparently SCE has its own separate stakeholder process for transmission updates. In fact, in at least some cases, the project information in the written summaries was not the latest available because SCE did not want the information presented in the two forums to be inconsistent.

LSA/SEIA understand SCE’s concern. However, SCE should:

- Explain the relationship between its other forum (which does not appear to be widely publicized) and this Forum; and
- Consider whether two separate transmission information processes are needed, i.e., whether the other process could be folded into this one.

**Larger questions**

Stakeholders seek additional information about logistics and policy-related issues concerning interconnection. Some suggestions are listed below.

**Work planning and prioritization**

LSA/SEIA seek information about the criteria used by PTOs to prioritize transmission upgrades for new-resource interconnection vs. other work.

Similarly, we would like to understand how the PTOs prioritize work between interconnection-related projects - for example, whether upgrades get higher priority based on: (1) First-come, first served; (h) original in-service date; (2) how many projects or how much capacity is depending on them; (3) whether they are RNUs (needed for interconnection) vs DNU (needed for deliverability).
“Early” project interconnections

LSA/SEIA seek information about how the PTOs and CAISO determine which new generation and storage projects can interconnect and operate first, when long-lead-time RNUUs are needed for the cluster as a whole but some projects can be accommodated without them.

At a minimum, information should be provided in Interconnection Studies on the amount of generation in the cluster that can be connected before the need for such RNUUs is triggered; the timing for requesting and receiving results for Limited Operation Studies (5 months and less than 3 months, respectively, before Initial Synchronization) are too late for a project given PPA commitments and construction timing to meet a specific COD.

PTO determination on commencement of interconnection-related upgrades

It seems that there is some judgment exercised on when PTO work on interconnection-related upgrades is initiated, e.g., sometimes PTOs will delay that work even when Notice to Proceed has been provided by an Interconnection Customer if there is some uncertainty about whether that upgrade will be needed. LSA/SEIA request additional information about: (1) How the PTOs make decisions on which upgrades to delay; and (2) whether the impact on resource COD or FCDS is considered in making such decisions. LSA/SEIA also ask that the PTOs notice impacted projects. (It is possible that the two items above may be covered in some manner in the 2021 Interconnection Process Enhancements (IPE) initiative, based on the Revised Straw Proposal in that initiative. LSA/SEIA suggest them here as well to ensure that the information and explanations we seek are completely covered between the 2021 IPE initiative and the Forum.)

Maintenance

This is relatively a new item in Interconnection Studies; it is typically assigned a “duration” like Network Upgrades, shown in the Network Upgrade tables, and considered in COD determinations.

Especially where it is the longest-lead-time item, stakeholders need to know more about the type of maintenance and options for addressing it, e.g.:

- Which transmission elements are affected by the maintenance; and
- Whether the maintenance can be: (1) conducted during hours when affected generation is less likely to be operating (e.g., nighttime for solar projects); (2) rescheduled, so resources can connect in time for the summer season; and/or (3) staged, to minimize generator impact at any given time.

Blackout/clearance windows

PTOs should provide clear and public communication about whether and when they have “blackout” or “clearance” windows when work needed for interconnections cannot be performed, and/or when generators are not allowed to reach COD.

Higher-voltage Distribution Upgrades on the SCE system

Most SCE system elements between 50 and 200 kV are classified as Distribution, and interconnection-related modifications to them are classified as Distribution Upgrades. However, larger generation/storage projects connect to those facilities just like those at that voltage level for other PTOs. LSA/SEIA recommend that those upgrades be added to this process.
**Written information content**

**Format/information standardization (reporting)**

Information provided by all PTOs, and the format used, should be the same. The formats were similar in the information provided, but PG&E listings had more information than the others.

Items listed in black font below were provided by all PTOs; PG&E added those in red, which should be added to listings of other PTOs. LSA/SEIA request addition of items shown in green font.

<table>
<thead>
<tr>
<th><strong>TPP-related upgrade listings</strong></th>
<th><strong>Interconnection-related upgrades</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Project (project name)</td>
<td>PTO project ID number</td>
</tr>
<tr>
<td>Description</td>
<td>Network Upgrades (project name)</td>
</tr>
<tr>
<td>Type of upgrade (reliability, economic, policy)</td>
<td>Description</td>
</tr>
<tr>
<td>Transmission Plan Approved</td>
<td>Type of Upgrade (reliability, delivery, maintenance)</td>
</tr>
<tr>
<td>In-service Date at Approval in Transmission Plan</td>
<td>Category (SCD overstress, reconductor, etc.)</td>
</tr>
<tr>
<td>CPUC permit application date, if applicable</td>
<td>Original assumed In-Service Date</td>
</tr>
<tr>
<td>Expected construction start date</td>
<td>CPUC permit application date, if applicable</td>
</tr>
<tr>
<td>Expected In-Service Date (2020-2021 Transmission Plan)</td>
<td>Project Status</td>
</tr>
<tr>
<td>Current Expected In-Service Date</td>
<td>Current Construction Start Date</td>
</tr>
<tr>
<td>Reasons for delays</td>
<td>Current In-Service Date</td>
</tr>
<tr>
<td>Notes</td>
<td>Reasons for delays</td>
</tr>
<tr>
<td>MWs impacted by delays – COD</td>
<td>MWs impacted by delays – COD</td>
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<td>MWs impacted by delays - FCDS</td>
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The items requested by LSA/SEIA are consistent with our wish that stakeholders better understand the larger issues, as explained above – most notably here, the reasons upgrades are delayed (e.g., permitting, workload) and the impacts of the delays.

In addition, LSA/SEIA request that the PTOs: (1) update the information as it changes, instead of waiting for the quarterly forums; and (2) notify impacted developers when the information changes.