



**Tesla Comments on Rule 18 Proposals
Rule 21 Working Group 4
5/4/2020**

Tesla appreciates the opportunity to submit these brief comments in response to the Issue 18 proposals that have been put forward by PG&E, CALSSA and IREC. As discussed below, we find that aspects of all three of the proposals have merit. Tesla does not have a view on the proposal from the Bioenergy Association of California at this time.

PG&E's Proposal

Tesla generally supports the concept behind PG&E's proposal, which would add several additional screens to its existing study process to more narrowly apply a requirement to deploy direct transfer trip or other mitigations to those circumstances where the risk of anti-islanding failure is more likely.

Tesla does have some questions regarding the practical ability to implement PG&E's proposal. Specifically, it seems that implementing PG&E's approach would require knowing the anti-islanding detection algorithm that is employed by all of the existing inverters interconnected to a given circuit. The proposed screen would require that Group 1 and 2A detection types make up > 70% of the inverter population by nameplate on a given circuit to avoid a risk of islanding study. It's unclear from PG&E's proposal how they would acquire this information and, if they are unable to obtain it, how that would impact how this would change their proposed screens.

In addition, Tesla sees the technical/empirical underpinnings of the specific thresholds that PG&E proposes as an evolving area of research, and while we appreciate the reliance on sources like the Sandia to inform these thresholds, it is not clear if the thresholds incorporated into these screens, such as the > 70% of Group 1 and Group 2A anti-islanding detection algorithm, are set at the appropriate level. As discussed below, the forum proposed by IREC would appear to be a good venue to continue to vet the risk of islanding and ensure that the approach taken to evaluate and mitigate that risk reasonably reflects the latest research and is adjusted as additional research in this area sheds further light on this topic.

Tesla also appreciates PG&E's inclusion of the opportunity for the interconnecting customer to perform a detailed risk of islanding study. Given the high cost of direct transfer trip and other mitigations like reclosers, providing an opportunity for a more robust assessment of the islanding risk is an important element of the overall framework.

CALSSA's Proposal

Tesla agrees with the various proposals put forward by CALSSA. We particularly want to underscore and amplify the concern CALSSA raises regarding the methodology that PG&E currently uses to calculate the generation to load ratio. The use of annual values for both highest generation and lowest load is overly conservative in Tesla's view. As CALSSA suggests, a much more reasonable approach would be to calculate the ratio for each hour of the year or a reasonable subset of hours. CALSSA's proposal to use the same level of temporal granularity as the ICA seems reasonable.



Additionally, Tesla is supportive of investigating how a screen that captures reactive power matching can be incorporated into the risk-of-islanding screening process.

IREC's Proposal

Tesla supports IREC's proposal to establish an islanding working group. As discussed by IREC, such a forum would provide an opportunity to delve more deeply into this highly technical topic. In its proposal IREC has laid out a reasonable set of issues that would be within scope for this forum as well as a reasonable cadence for meeting and anticipated deliverables.