

Smart Inverter Working Group

February 2, 2023

1:00 p.m. – 2:30 p.m.

Topic B.1: Quarterly Report

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Background on Topic B.1

"As presented during the November 29, 2022 workshop, the Large IOUs shall utilize Advanced Metering Infrastructure (AMI) data for projects with a nameplate of less than 1 MW and telemetry for LGP projects with a nameplate over 1 MW as telemetry is already a requirement per the current Rule 21 for projects sized above 1 MW. The Large IOUs are therefore directed to finalize details and tariff language during the workshops ordered in this Resolution and include it in the subsequent ALs."

- Resolution 5230

Previously Presented at 5211 LGP Workshop #2

- For LGP projects with nameplate under 1 MW, utilities will utilize AMI data.
- For LGP projects with nameplate greater than or equal to 1 MW, telemetry will be required.
 - Utilities may also leverage AMI data if available and if telemetry is monitoring only the generating facility
- For all LGP projects, if AMI capabilities are not available, an alternative to enable quarterly reporting must be implemented to measure export at the point of common coupling (PCC).

Note: Although AMI data has the potential of serving as a post-event data point, it is not designed to send data in real-time and does not provide real-time visibility to the utility system operators.

Topic B.2: Use of Gross Nameplate Rating

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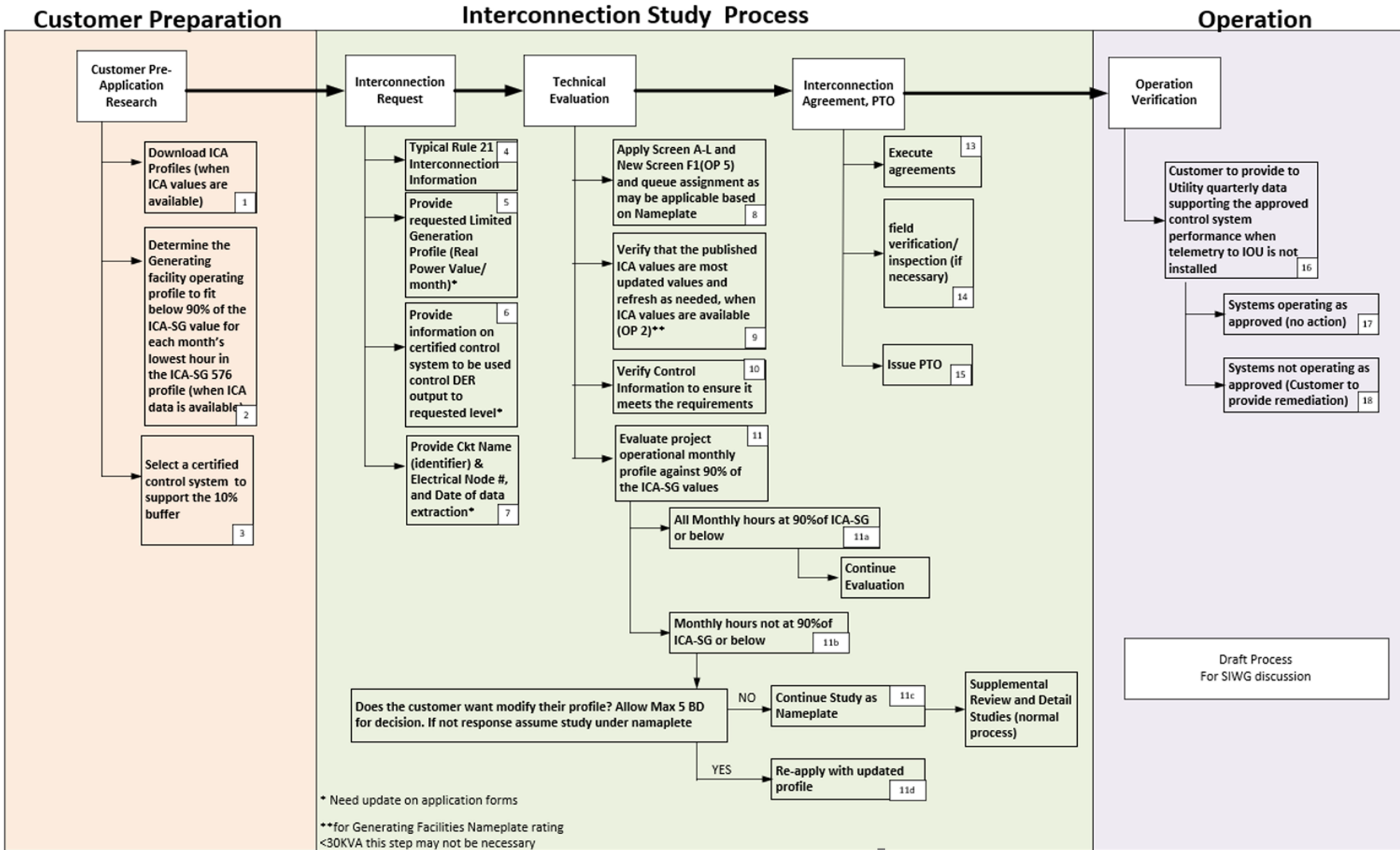


Background on Topic B.2

"We direct the Large IOUs to discuss tariff language modifications during the workshops and to provide more information on which aspects of Screen P will be studied using the LGP value and which will not, if this is the case. In the November 10, 2022 SIWG meeting, the Large IOUs also state that Screens F, G, and H will be evaluated on nameplate rating. The Large IOUs note that 'Screens A-E are also not included in ICA calculation. The evaluation is not based on nameplate rating but will depend on aspects of each screen.' As it is still unclear how screens D, I, J, and K will be studied, discussions regarding these screens should continue within the workshop discussions. We find a mere statement 'Given that ICASG values do not account for screens D, J, and K, then it is appropriate to evaluate screen D using gross nameplate rating' without proper justification and details unconvincing. Accordingly, the Large IOUs are directed to fully justify their arguments. The discussions should refer to how the Decision adopts Proposal A-B 3 and how the Working Group Three Report states the screens should be applied, which we discuss below. Below we also address SDG&E's response regarding upward revisions in allowable generation."

- Resolution 5230

Proposed Changes to Implement LGP



Screening Process Discussion

"The Large IOUs note that "Screens A-E are also not included in ICA calculation. The evaluation is not based on nameplate rating but will depend on aspects of each screen"

- **Screen A:** Determines if project is located on a "Networked Secondary." ICA values not calculated for secondary systems (networked or not).
- **Screen B:** Screen is related to certification of equipment (inverters, PCS) which is not related to ICA calculations.
- **Screen C:** While ICA has PQ/Voltage fluctuations, that is mainly for primary systems. Screen C includes voltage drop and flicker on the service transformer and secondary service; service transformers and secondary service are not included in ICA.
- **Screen D:** This screen is related to service transformer/secondary overloads which are not accounted for in ICA given that ICA only calculates the values at the primary system.
- **Screen E:** This screen is related to circuit phase balancing for single-phase generators. Single phase circuit balancing is not calculated in ICA.

Addressing Rule 21 Screens D, I, J and K as they relate to LGP

"As it is still unclear how screens D, I, J, and K will be studied, discussions regarding these screens should continue within the workshop discussions"

- **Screen D:** IOU's will use the maximum potential export based on the LGP when analyzing Screen D.
- **Screen I:** Screen I asks whether the project will export power across the PCC. Currently there are 11 screen I options. Pending further discussion, a 12th may be needed to be added to address LGP projects.
- **Screen J:** Rule 21 already uses Gross Nameplate Rating. The working group only recommended that "11 KVA" be changed to "30 KVA." No changes were recommended or discussed regarding changing Gross Nameplate Rating.
- **Screen K:** Same argument as for Screen J.

Screening Process Discussion

"In the November 10, 2022 SIWG meeting, the Large IOUs also state that Screens F, G, and H will be evaluated on nameplate rating"

The following screens are evaluated on Nameplate and not included in ICA calculations

- **Screen F:** ICA does not calculate Short Circuit Contribution Ratio (SCCR) to determine if SCCR is $\leq 10\%$.
- **Screen F.1:** ICA uses facility gross nameplate to determine whether short circuit contribution is within allowable limits.
- **Screen G:** ICA does not calculate impact of increased short circuit on protection and devices and equipment.
- **Screen H:** ICA does not account for line configuration loading per table G-1 of Rule 21.

Screening Process Discussion

"We direct the Large IOUs to discuss tariff language modifications during the workshops and to provide more information on which aspects of Screen P will be studied using the LGP value and which will not, if this is the case"

Analysis of Screen P under supplemental review will be triggered by failure of Screens [A-H] F, F.1, G, or H. As indicated on slide 10, Screens F, F.1, G, and H use nameplate, therefore, Screen P would be evaluated using nameplate.

Exact tariff language for the screens impacted by LGP needs to be developed.

Questions

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