

Energy Storage Sub Group

September 13, 2018

Sub-Committee Members

- Member List
 - Michael Porcaro Technical Lead
 - Will Lauwers -
 - Mike Conway
 - John Motta
 - Joseph Petta
 - Steven Rymsha
 - Melissa Kemp
 - B Canavan
 - Keith Jones

- Danny Musher
- Sky Stanfield
- Gerry Bingham
- Samer Arafa
- Chris Rauscher
- Steven Casey
- Brian
- Cynthia Janke
- Nitzan Goldberger

Information Requests



Data Collection



Microsoft Excel Worksheet

Supporting Documentation



Microsoft Word Document

Typical Site Arrangements – DC Coupled

\boxtimes Gang operated load break 52 ∞ Company interrupting device Point of Common Coupling (PCC definition per IEEE 1547) Μ \boxtimes Primary meter Additionally denotes point of demarcation between Company and Customer Ownership \boxtimes Gang operated load break switch \boxtimes 52 Customer interrupting device Point of Connection (PoC definition AC per IEEE 1547) TO SITE LOAD DC -72 LEGEND Customer owned & installed Company owned & installed

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Typical Site Arrangements – AC Coupled

nationalgrid \otimes Gang operated load break 52 Company interrupting device \boxtimes Primary meter M \boxtimes Gang operated load break switch \boxtimes 52 Customer interrupting device **L**



Typical Site Arrangements – Stand Alone

\boxtimes Gang operated load break 52 \otimes Company interrupting device Point of Common Coupling (PCC definition per IEEE 1547) Primary meter \boxtimes Μ Additionally denotes point of demarcation between Company and Customer Ownership \boxtimes Gang operated load break switch 52 \boxtimes Customer interrupting device Point of Connection (PoC definition AC per IEEE 1547) TO SITE LOAD DC <u>=</u> T-LEGEND



Moving Forward

- Include general information requests in the Common Guideline
- Open conversation on analysis methods
 - Ramp rate
 - AC vs DC coupled
- Fault considerations
 - Full nameplate rating of inverter, or limited value
- Implications of self-islanding
- Consideration of widespread installations
 - Requirements must consider effect if everyone on system has ESS