**DER Deployment Data Requirement No. 3:**

Information on areas with existing or forecasted transient voltage or frequency issues that may benefit from the utilization of advanced inverter technology, energy storage systems, or NWS more broadly; provide information describing experiences where distributed generation installations have caused operational challenges such as power quality, voltage or system overload issues, and associated customer complaints.

**Response:**

The Company has not identified any substation or circuits with pre-existing transient overvoltage voltage or frequency issues. To avoid power quality issues such as flicker and transient overvoltage conditions, the Company requires that all DER implement setting on all inverters. Such settings include a ramp rate to avoid flicker and power quality issues, other settings ensures that inverters limit their cumulative overvoltage contributions according to the transient overvoltage curve identified in IEEE Standard 1547−2018 clause 7.4.2. The company will also consider other smart inverter settings to avoid upgrades when possible.

Since 2022 the Company has conducted several dynamic studies as part of the DER Impact Study that would identify transient over voltage conditions but to date has yet to identify a major issue that required significant upgrades to the distribution system. In most cases, using a grounding transformer and compliance with IEEE 1547−2018 clause 7.4.2. has resolved transient overvoltage voltage issues. The Company will consider alternative to study and mitigate Transient overvoltage issue on a case-by-case basis.

The Company forecasts that substation with high DER penetrations which result in significant export onto the transmission system may create transient voltage condition that may be mitigated by advanced inverter technology, energy storage systems, or NWS, or more traditional solutions such as reconductoring or substation transformer replacement. The Company has identified eight substations in Docket No. 22-06-29RE01 (Pura Investigation onto Interconnection Costs allocation Non-Residential Interconnection Upgrades) which are likely to have transient voltage in addition to the overload conditions and will require significant upgrades.