

RELAYING REQUIREMENTS --DISTRIBUTION

1. The interconnection will require protective relaying capable of providing protection per IEEE 1547.
2. Below are the voltage and frequency settings used on Dominion Energy South Carolina's recloser. It is the customer's responsibility to ensure that the settings will coordinate with their equipment. A tiered approach is recommended: inverters should respond first, then customer's recloser, and finally the Dominion Energy South Carolina recloser. There should be enough coordination to allow for relay response time plus recloser operate time.
 - a. Underfrequency (81U)
 - 58.5 Hz @ Time delay of 10,920 cycles (182 seconds)
 - 56.5 Hz @ Time delay of 22 cycles (0.37 seconds)
 - b. Overfrequency (81O)
 - 61.2 Hz @ Time delay of 10,920 cycles (182 seconds)
 - 62 Hz @ Time delay of 22 cycles (0.37 seconds)
 - c. Undervoltage (27)
 - 70% of nominal @ Time delay of 900 cycles (15 seconds)
 - 45% of nominal @ Time delay of 25 cycles (0.42 seconds)
 - d. Overvoltage (59)
 - 110% of nominal @ Time delay of 72 cycles (1.2 seconds)
 - 120% of nominal @ Time delay of 22 cycles (0.37 seconds)
3. Reverse Power (where required)
 - a. 100kW -- Time delay of 3 seconds
4. The generator must have anti-islanding protection.
5. The customer must provide us with the following schematics/documentation:
 - a. Prior to requesting in-service inspection:
 - Most recent overall one-line diagram.
 - The recloser "issued for construction" relay protection settings.
 - The inverter "issued for construction" relay protection settings.
 - The inverter instruction manual or subset explaining the protection settings.

NOTE: Dominion Energy South Carolina must approve relay and inverter protection settings prior to customer requesting in-service inspection.

 - b. Prior to anti-islanding tests:
 - The inverter commissioning test report, including "as left" protection settings.
 - c. After anti-islanding tests:
 - "As left" relay protection settings.
6. It is the customer's responsibility to protect their generation from reclosing operations.