

# DER Protection Philosophy Checklist

This document describes the technical details that are expected to be provided in a Protection Philosophy document as part of the initial COVER submission for new or modified DER projects. These items are general and not exhaustive or prescriptive. To ensure all applicable requirements are met. Please see accompanying Single Line Diagram sample.

## Project Description

Project Name

Enova Power Corp.    Project ID#

Project Location

Project Type

DER Technology

Capacity

Utility Feeder of Connection

## Protection Requirements

Please describe in writing the details of the following protection schemes and systems:

- Breaker Fail (BF) Scheme and Timing (for DG facilities with an aggregate output of >500kW)
- Phase and Ground Fault Protection
  - All internal faults (3ph and 1ph) within the DG Facility
  - All external faults (3ph and 1ph) on the interconnected feeder including single phase lateral taps
- Open Phase Protection (3ph)
  - Method for detecting loss of voltage in one or more phases of Enova Power Corp.'s distribution system and automatically cease to energize all phases from the interconnected system
  - Method for maintaining balanced 3-phase output under all operating conditions
- Over Frequency/Under Frequency Protection
- Overvoltage/Undervoltage Protection
- Anti-Islanding Protection

- Transfer Trip (If applicable)
- Distributed Generator End Open (DGEO) (If applicable)
- Low Set Block Signal (LSBS) (If applicable)
- Protection Scheme Failures (If applicable)
- Disconnecting and Interrupting Device Details
- Synchronization (If applicable)
- Automatic Reconnection of Generation and HV Ground Sources

## Control And Monitoring Requirements

- Control Facilities
- Operating Data, Telemetry and Monitoring
- Telemetry Reporting Rates

## Tripping Matrix

Please include a tripping matrix in table format detailing which protection relays and associated circuit breakers trip for short circuits in all sections of the electrical system.