**Section 466.75 Limited-Export and Non-Exporting Distribution Energy Resources Facilities**

The following technical specifications are intended to identify acceptable export control methods to facilitate the interconnection and parallel operation of limited-export and non-export systems with the EDC's electric distribution system.

a) If a DER facility uses any configuration or operating mode in subsections (c)(1) through (6) to limit the export of electrical power across the point of interconnection, then the export capacity shall be only the amount capable of being exported (not including any inadvertent export). To prevent impacts on system safety and reliability, any inadvertent export from a DER facility must comply with the limits identified in this Section. The export capacity specified by the interconnection customer in the application will subsequently be included as a limitation in the interconnection agreement. Applicants seeking to interconnect using the operating modes under this Section shall submit proposed control or protection settings in their application for review by the EDC to verify compliance with the requirements of this Section.

b) The export control types and settings listed in subsection (c) are acceptable for controlling export capacity unless the EDC identifies and communicates to the customer during the interconnection screening or study process specific impacts that affect the reliability, safety, operation and power quality of the EDC's system associated with the protection relays, settings and control schemes listed in this Section. In that case, the EDC may identify alternate settings that would be required for safe and reliable interconnection of the proposed DER facility. The EDC may also identify any monitoring and control equipment to be installed at Applicant’s expense on DER systems using export control equipment that is required for safe and reliable interconnection and operation of the DER facility.

c) The export controls identified in subsections (c)(1) through (3) are acceptable for non-exporting systems only. The export control identified in subsections (c)(4) and (c)(5) may be used for limited export systems only. The export controls in subsections (c)(6) and (7) may be used for either non-exporting or limited export systems. Inverter-based limited export systems shall use advanced inverters utilizing operating modes and settings specified by the EDC in its written technical standards for interconnection.

1) Reverse Power Protection (Device 32R)

To limit export of power across the point of interconnection, a reverse power protective function is implemented using a utility-grade protective relay. The default setting for this protective function shall be 0.1% (export) of the service transformer's nominal base nameplate rating, with a maximum 2.0 second time delay to limit inadvertent export.

2) Minimum Power Protection (Device 32F)

To limit export of power across the point of interconnection, a minimum import protective function is implemented using a utility-grade protective relay. The default setting for this protective function shall be 5% (import) of the generating unit's total nameplate capacity, with a maximum 2.0 second time delay to limit inadvertent export.

3) Relative Distributed Energy Resource Rating

This option requires the DER facility's nameplate capacity to be so small in comparison to its host facility's minimum load that the use of additional protective functions is not required to ensure that power will not be exported to the electric distribution system. This option requires the DER facility's nameplate capacity to be no greater than 50% of the interconnection customer's verifiable minimum host load over the past 12 months. For systems above 250 kVA, the EDC may require additional assurances, equipment, or agreements based upon evaluation of the stability and reliability of the minimum load data. This option is not available for interconnections to area networks or spot networks.

4) Directional Power Protection (Device 32)

To limit export of power across the point of interconnection, a directional power protective function is implemented using a utility-grade protective relay. The default setting for this protective function shall be the export capacity value, with a maximum 2.0 second time delay to limit inadvertent export.

5) Configured Power Rating

A reduced output power rating utilizing the power rating configuration setting may be used to ensure the DER does not generate power beyond a certain value lower than the nameplate capacity. The reduced power rating shall be indicated by means of a nameplate rating replacement, or by a supplemental adhesive nameplate rating tag to indicate the reduced nameplate rating. At the discretion of the EDC, the applicant may additionally be required to provide a letter from the manufacturer confirming the reduced capacity.

6) Limited Export Utilizing Power Control Systems

The following are the minimum requirements for the limited export utilizing power control systems that meet the criteria specified in this subsection (c)(6). Other factors relevant to the interconnection study process may necessitate additional technical requirements that are not explicitly noted in this subsection. This option is not available for interconnections to area networks or spot networks.

A) DER facilities utilizing this option must use an NRTL-certified UL 1741 power control system and inverter system with a maximum open loop response time of no more than 30 seconds for systems less than or equal to 100 kVA and a maximum open loop response time of no more than 10 seconds for systems greater than 100 kVA. The DER facility must disconnect from the electric distribution system, ceasing to energize the electric system or halting energy production within 2.0 seconds if the period of continuous export exceeds 30.0 seconds.

B) Failure of the control system or inverter system for more than 30.0 seconds resulting from loss of control or measurement signal, loss of control power, single component failure, or related control sensing of the control circuitry must result in the DER facility entering non-export operation mode whereby no energy is exported across the point of interconnection to the electric distribution system until the customer has reestablished real power output control of the DER facility.

C) An acceptable open loop response time may need to be mutually agreed upon between the EDC and the applicant for DER facilities with a nameplate capacity greater than 1 MVA that utilize a NRTL certified power control system.

COMMISSION NOTE: NRTL testing to the UL power control system certification requirements decision shall be accepted until similar test procedures for power control systems are included in a standard.

7) Limited Export Using Agreed-Upon Means

DER facilities may be designed with other control systems or protective functions to limit export and inadvertent export if mutual agreement is reached with the EDC. The limits may be based on technical limitations of the interconnection customer's equipment or the electric distribution system equipment. To ensure inadvertent export remains within mutually agreed-upon limits, the interconnection customer may use an uncertified power control system, an internal transfer relay, energy management system, or other customer facility hardware or software if approved by the EDC.

(Source: Added at 46 Ill. Reg. 9666, effective May 26, 2022)