Generation

Scope

This section helps customers identify which type of generation applies to their project and directs them to the appropriate requirements for Standby (Backup) Generation or Distributed Energy Resources (DER).

Customers installing any equipment capable of generating electricity on their premises must review this section before designing or installing their systems.

Types of Customer Generation

Standby (Backup) Generation

Standby generation is intended only to serve the customer's internal load when Evergy service is unavailable.

Typical examples include:

- Backup generators for homes or businesses.
- Portable generators connected through approved transfer equipment.
- Closed-transition backup generators (momentary parallel <250 ms).

Standby generation must not export power to Evergy's system.

Full requirements for standby generation (including open-transition and closed-transition equipment) are found in the Standby Generation section.

Distributed Energy Resources (DER)

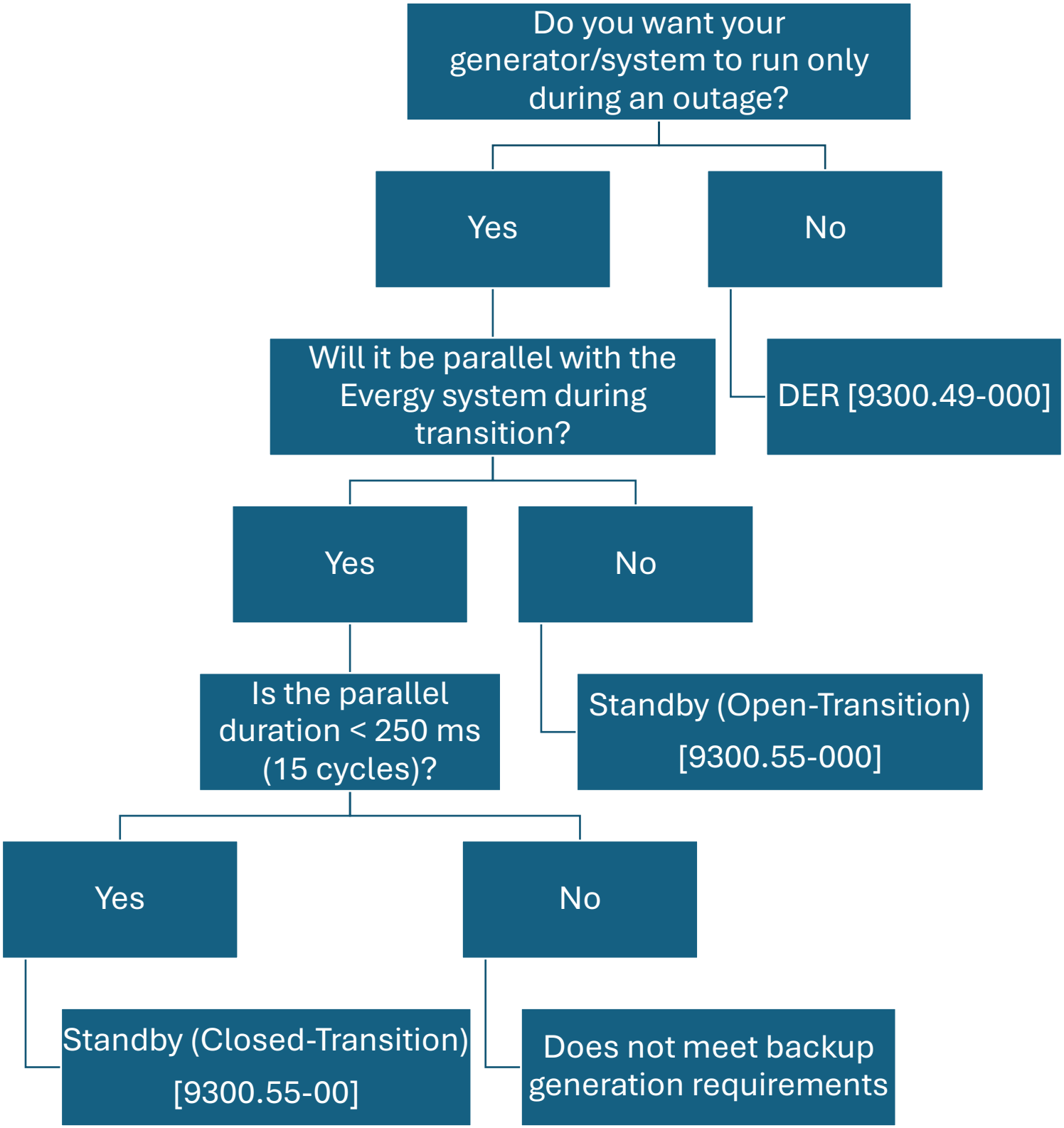
DER systems operate in parallel with Evergy's system. These systems can generate power while Evergy is energized and may export power.

Examples include:

- Solar photovoltaic (PV) systems.
- Battery Energy Storage Systems (BESS) capable of parallel operation.
- Generators designed for parallel or peak-shaving operation.
- Inverter-based systems that remain connected during normal operation.

DER systems require interconnection review and approval. Requirements are found in the DER Generation section.

Generation Type Decision Tree



Distribution Interconnection Standards and Procedures

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1 Overview

Purpose

This Distribution Interconnection Standards and Procedures Document applies to any Customer Distributed Energy Resource (DER) seeking connection to the electric Distribution System (voltages up to and including 34.5 kV) of Evergy and its operating Companies.

Scope

Distributed Energy Resources (DER) span a wide range of sizes, technologies and electrical characteristics. This Distribution Interconnection Standards and Procedures Document applies only to DER Facilities seeking to operate in parallel with Company's electric Distribution System. It is not intended to cover stand-alone or Backup Generation not operated in parallel with the Company's Distribution System.

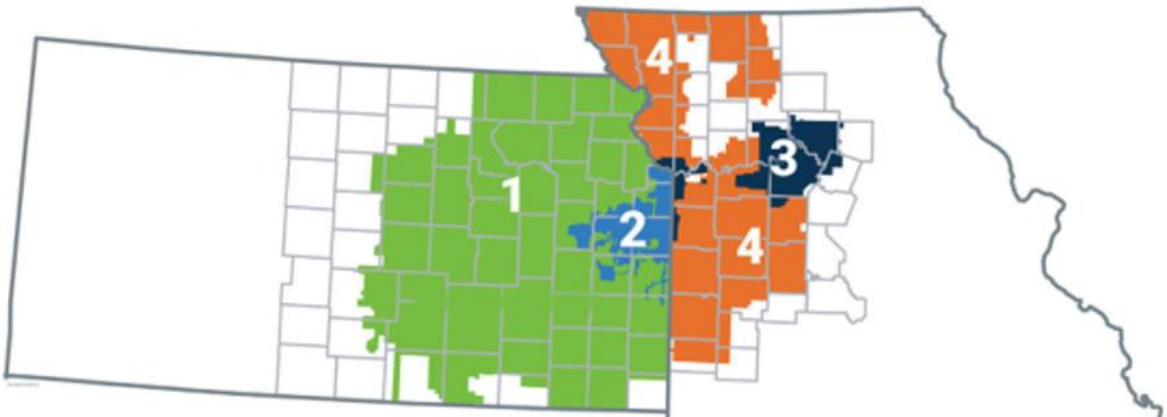
DER Interconnection to the Transmission System (voltages greater than 34.5 kV) is outside the scope of this Document and is addressed in a separate Evergy transmission Facility Interconnection Requirements document.

https://www.evergy.com/-/media/media/evergy-web/footer/partner-with-us/new-construction-transmission-facility-connection.pdf?la=en

Evergy Service Territories

Evergy provides electric service to Customers in Kansas and Missouri in four (4) service territories as defined by the Kansas Corporation Commission and the Missouri Public Service Commission. The Evergy service territories are illustrated in Figure 1-1 below.

Figure 1- 1: Evergy Service Territories



Evergy name	Legacy name
1. EVERGY KANSAS CENTRAL	Westar
2. EVERGY KANSAS METRO	KCP&L KS
3. EVERGY MISSOURI METRO	KCP&L MO
4. EVERGY MISSOURI WEST	KCP&L Greater Missouri Operations (GMO)

Key Contacts

Evergy Metro and MO West Contacts

All Customer care - 1-888-471-5275 or 816-471-5275

For emergencies, power out or lines down, call toll-free – 1-888-544-4852 (1-888-LIGHT-KC)

Solar Hotline - 816-242-5971

Mailing address for $100 Kansas Net Metering Application fee

Evergy
P.O. BOX 418679
Kansas City, MO 64141
ATTN: Solar Rebates/Net Metering

Evergy KS Central Contacts

Residential Customer care 1-800-383-1183
Business Customer care 1-800-401-5666

Mailing address for $100 Kansas Net Metering Application fee

Evergy
PO Box 208
Wichita Kansas 67201

Utility One Call

Missouri – 1-800-344-7483 (1-800-DIG-RITE)
Kansas One-Call – 811 or 1-800-344-7233 (1-800-DIG-SAFE)

Definitions

The definitions of terms used in this Document are consistent with IEEE 1547, Kansas and Missouri statutes, Commission rules, and Company tariff definitions to the extent possible. Symbols denoting the origin of the definition are shown as a superscript at the end of each term. The document represented by each symbol are listed in the page notes below.

Throughout this Document, the word ***shall*** is used to indicate a mandatory requirement. The word ***should*** is used to indicate a recommendation. The word ***may*** is used to indicate a permissible action. The word ***can*** is used for statements of capability and possibility.

The definition Capitalized terms used in this Document are:

Aggregate DER Nameplate Ratings[◈]**:** For Local EPS with multiple DER, the aggregate DER Nameplate Rating is equal to the sum of all DER Nameplate Ratings in the Local EPS, not including aggregate capacity limiting mechanisms such as coincidence factors, plant controller limits, etc., that may be applicable for specific cases.

Agreement: See DER Interconnection Agreement

Applicable Voltage[◈]**:** Electrical quantities that determine the performance of a Local EPS or DER specified with regard to the Reference Point of Applicability, individual phase-to-neutral, phase-to-ground, or phase-to-phase combination and time resolution.

Anti-Islanding: A control scheme installed as part of the DER Facility that senses and prevents the formation of an Unintended Island.

Applicant: The entity submitting a DER Interconnection Application.

Application: See Interconnection Application

Area Electric Power System (Area EPS)[◈]**:** An EPS that serves Local EPSs.

Available Active Power[◈]**:** Active power that a DER can deliver to the Area EPS subject to the availability of the DER's primary source of energy.

Backup Generation: A Customer generation system that has no possibility of operating in parallel with the Company's Distribution System. This requires a break-before-make throw over switching arrangement. See the Evergy Electric Service Standards. Customer generation systems with make-before-break transitions are considered Parallel Generation systems.

Bulk Power System (BPS): Any electric generation resource, transmission lines, interconnections with neighboring systems and associated equipment. For the purposes of this document, a BPS operates at voltages greater than 34.5 kV.

Business Days: Monday through Friday, excluding Federal, State and Company Holidays.

Calendar Days, Days: Any day, including Saturday, Sunday, and Federal, State and Company Holidays.

Cease to Energize: Cessation of active power delivery under steady-state and transient conditions and limitation of reactive power exchange. This does not necessarily imply, nor exclude disconnection, isolation, or a trip. See IEEE 1547 for further details.

Certification, Certification Certificate: The documented issued by a Nationally Recognized Test Laboratory (NRTL) that states that the Certified Equipment has successful passed certification testing.

Certified, Certified Equipment: Equipment that has passed all required certification tests to verify conformance of certain required equipment and performance standards in order to be classified as Certified Equipment. Certification testing is performed by NRTLs.

Clearing Time: The time between the start of an abnormal condition and the DER ceasing to energize the Area EPS. It is the sum of the detection time, any adjustable time delay, the operating time plus arcing time for any interposing devices (if used), and the operating time plus arcing time for the interrupting device (used to interconnect the DER with the Area EPS).

Cogeneration: Using one energy source to produce two separate forms of energy. It is also known as combined heat and power (CHP).

Commission [K, M]: Means either the Kansas Corporation Commission or the Missouri Public Service Commission.

Commissioning Test [1]: A test conducted when the equipment is installed to verify correct operation.

Company: Evergy and its operating companies.

Customer [K]: Customer means an entity receiving retail electric service from the Company.

Customer-Generator: the owner or operator of a renewable generation facility that is connected to a Company facility.

Per KS Statute (K.S.A 66-1264), Customer-Generator means the owner or operator of a net metered facility.

Per MO statute (386.890), Customer-Generator, the owner or operator of a qualified electric energy generation unit.

Distributed Energy Resource (DER): A source of electric power that is not directly connected to a Bulk Power System. DER includes both generators and energy storage technologies capable of exporting Active Power to the Company Distribution System. An Interconnection system or a

supplemental DER device that is necessary for compliance with the IEEE 1547 standard is part of a DER. Note: controllable loads used for demand response are not included in this definition of DER.

DER Composite[1]**:** A system that consists of partially compliant DER components and Supplemental DER Device(s), and requires detailed design evaluation, installation evaluation, and Commissioning tests to determine full compliance to IEEE 1547 requirements.

DER Facility: One or more DER Units, electrical wires, equipment and other facilities owned or provided by the Customer for the purpose of producing electric power.

DER Operator: The entity responsible for operating and maintaining the DER.
Note: Also referred to as Customer-Generator in this Document, Net Metering Rules, Tariffs, Applications and Interconnection Agreements.

DER System[1]**:** A system that consists of DER Unit(s) and Supplemental DER device(s) that is type tested as a system and installed in accordance with the DER manufacturer's instructions and that, as a whole, is fully compliant with IEEE Std 1547.

DER Unit[1]**:** A fully compliant DER that does not require *supplemental DER devices* to meet the IEEE 1547 requirements.

Distribution System: All electrical wires, equipment, and other facilities owned or provided by Company at voltages up to and including 34.5kV (phase to phase voltage), by which Company provides electrical service to its Customers. Also referred to as the Area EPS.

Distribution Upgrades: The additions, modifications, and upgrades to Distribution System at or beyond the Pont of Interconnection to facilitate Interconnection of the DER Facility. Distribution Upgrades do not include Interconnection Facilities.

Document: Evergy Distribution Interconnection Standards and Procedures.

Electric Power System (EPS): Facilities that deliver electric power to a load.

Electric Service Standard: Refers to the Evergy Electric Service Standards document available at: http://ss.evergy.com/.

Energize: Active power outflow of the DER to an EPS under any condition (e.g., steady state and transient).

Enter Service: Begin operation of the DER with an energized EPS.

Facility Interconnection: See Point of Common Coupling (PCC).

IEEE 1547: The IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces. The references in this Document refers to the latest version – 2018.

Inadvertent Export: Occurs when a Customer's DER Facility delivers unscheduled and uncompensated real power to the Company's Distribution System.

Intentional Island: A planned electrical Island that is capable of being energized by one or more Local EPSs. These (1) have DER(s) and load, (2) have the ability to disconnect from and to parallel with

the Area EPS, (3) include one or more Local EPS(s), and (4) are intentionally planned. *Note: An Intentional Island may be an Intentional Area EPS island or an Intentional Local EPS island.*

Intentional Area EPS Island: An intentional island that includes portions of the Area EPS.

Intentional Local EPS Island: An Intentional Island that is totally within the bounds of a Local EPS.

Interconnection: The result of the process of adding DER to an Area EPS, whether directly or via intermediate Local EPS.

Interconnection Agreement: An agreement between Company and Customer providing for the Interconnection of a DER Facility that gives certain rights and obligations to effect or end Interconnection. Also referred to as Net Metering Interconnection Application/Agreement and Facility Interconnection Agreement.

Interconnection Application: An Applicant's request to interconnect a new DER Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing DER Facility that is interconnected with Company's Distribution System.

Interconnection Equipment: The electrical wires, switches, controls, and related equipment that are required by the Company in addition to the facilities required to provide electric Service to a Customer to allow Interconnection. Interconnection Equipment may be located on either side of the Point of Common Coupling as appropriate to their purpose and design. Interconnection Equipment may be owned by ether Customer or Company.

Inverter: A machine, device, or system that changes direct-current power to alternating-current power.

Island: A condition in which a portion of an Area EPS is energized solely by one or more Local EPSs through the associated PCCs while that portion of the Area EPS is electrically separated from the rest of the Area EPS on all phases to which the DER is connected. When an island exists, the DER energizing the island may be said to be "islanding".

Line Section: That portion of Company's Distribution System connected to a Customer bounded by automatic sectionalizing devices or the end of the distribution line.

Local EPS: An EPS contained entirely within a single premises or group of premises.

Local DER Communication Interface: A local interface capable of communicating to support the information exchange requirements specified in this standard for all applicable functions that are supported in the DER.

Material Modification: Those modifications that have a material impact on cost or timing of any Interconnection Request or a change in the Pont of Interconnection. A Material Modification does not include a change in ownership of a DER Facility.

Momentary Cessation: Temporarily Cease to Energize an EPS, while connected to the Area EPS, in response to a disturbance of the Applicable Voltages or the system frequency, with the capability to immediately Restore Output when voltages and/or frequency return to within defined ranges.

Multi-Dwelling Unit (MDU): Multi-dwelling unit is a classification of housing where multiple separate housing units for residential inhabitants are contained within one building. Units can be next to each other or stacked on top of each other. A common form is an apartment building.

Nameplate Ratings: Nominal voltage (V), current (A), maximum active power (kW), apparent power (kVA), and reactive power (kvar) at which a DER is capable of sustained operation.

NEC: Means the National Fire Protection Association (NFPA) 70 National Electrical Code-2020

NESC: Means the National Electrical Safety Code

Net Metering[M]: Means using metering equipment sufficient to measure the difference between the electrical energy supplied to a Customer by the Company and the electrical energy supplied by the Customer to the Company over the applicable billing period.

Secondary Network: A Distribution System where the secondary of the distribution transformers are connected to a common bus for supplying electricity directly to consumers. There are two types of secondary networks: grid networks (also referred to as area networks or street networks) and spot networks.

Non-Export; Non-Exporting: When the DER Facility is sized and designed such that the DER output is used for Customer's load only and is designed to prevent the transfer of electrical energy from the DER Facility to the Company Distribution System.

Non-Islanding: Designed to detect and disconnect from a stable Unintended Island with matched load and generation. Reliance solely on under/over voltage and frequency trip is not considered sufficient to qualify as Non-Islanding.

Operating Mode: Mode of DER operation that determines the performance during normal or abnormal conditions.

Parallel Operation: The simultaneous operation of a DER Facility with power delivered or received from the Distribution System while Interconnected for more than 60 cycles (one second).

Paralleling Device[1]: A device (e.g., circuit breaker) operating under the control of a synchronizing function to electrically connect two energized power sources together.

Point of Common Coupling (PCC): The point of connection between the Area EPS and the Local EPS. Note: Equivalent, in most cases, to "service point" as specified in the National Electrical Code (NEC) and the National Electrical Safety Code (NESC).

Point of Connection (PoC): The point where a DER unit is electrically connected in a Local EPS and meets the requirements of this standard exclusive of any load present in the respective part of the Local EPS. Note: For DER that are not self-sufficient to meet the requirements without Supplemental DER Device(s), the POC is the point where the requirements of this standard are met by DER device(s) in conjunction with Supplemental DER Device(s) exclusive of any load present in the respective part of the Local EPS.

PURPA: Mean the Public Utility Regulatory Policies Act of 1978, enacted by the U.S. Congress following the energy crisis of the 1970s to encourage cogeneration and renewable resources and promote competition for electric generation.

Qualifying Facility[Q]: means a cogeneration facility or a small power production facility that is a qualifying facility under PURPA, 18 CFR 292 Subpart B.

Reference Point of Applicability (RPA): The location where the specified Interconnection and interoperability performance requirements apply.

Renewable Energy Resources [K,M]:

Per K.S.A. 66-1257 "Renewable energy resources" means net renewable generation capacity from:

(1) Wind;
(2) solar thermal sources;
(3) photovoltaic cells and panels;
(4) dedicated crops grown for energy production;
(5) cellulosic agricultural residues;
(6) plant residues;
(7) methane from landfills or from wastewater treatment;
(8) clean and untreated wood products such as pallets;
(9) hydropower; new and existing
(10) fuel cells using hydrogen produced by one of the above-named renewable energy resources; and
(11) energy storage that is connected to any renewable generation by means of energy storage equipment including, but not limited to, batteries, fly wheels, compressed air storage and pumped hydro.

Per MO Rev Stat § 386.890, "Renewable energy resources", electrical energy produced from

(1) wind,
(2) solar thermal sources,
(3) hydroelectric sources,
(4) photovoltaic cells and panels,
(5) fuel cells using hydrogen produced by one of the above-named electrical energy sources, and
(6) other sources of energy that become available after August 28, 2007, and are certified as renewable by the department;

Restore Output: Return operation of the DER to the state prior to the abnormal excursion of voltage or frequency that resulted in a Ride-Through operation of the DER.

Return to Service: Enter Service following recovery from a Trip.

Ride-Through: Ability to withstand voltage of frequency disturbances inside defined limits and to continue operating as specified.

Single Line Diagram; One Line Drawing: A schematic drawing, showing the major electric switchgear, Protective Function devices (including relays, current transformer and potential transformer configurations/wring in addition to circuit breakers/fuses), wires, generators, storage units, Inverters, transformers, meters and other devices, proving relevant details to communicate to a qualified engineer the essential design and safety of the system being considered.

Supplemental DER Device: Any equipment that is used to obtain compliance with some or all of the Interconnection requirements of this standard.
Note: Examples include capacitor banks, STATCOMs, harmonic filters that are not part of a DER Unit, protection devices, plant controllers, etc.

Trip: Inhibition of immediate Return to Service, which may involve disconnection.
Note: Trip executes or is subsequent to Cessation of Energization.

Type Test: A test of one or more devices manufactured to a certain design to demonstrate, or provide information that can be used to verify, that the design meets the requirements specified in this standard.

UL 1741: means Underwriters Laboratory Standard 1741 “Standard for Inverters, Converters, Controllers and Interconnection System Equipment for use with Distributed Energy Resources”.

Unintended Island: An unplanned Island. Note: The creation of an Unintended Island, usually occurs following a loss of a portion of Distribution System, without the Company approval

DER Interconnection Programs

There are various programs offered for Customers connecting qualified DER Facilities, including Net Metering (NM). These programs allow Customers to install their own DER, which are Interconnected to and operate in parallel with Company's Electric Distribution System. The Interconnection requirements and Application processes are dependent on the program selected by the Applicant. Interconnection requirements also depend on whether the DER will export energy to the grid or not. These programs are summarized in Table 3-1 and the following sections.

Table 3-1: DER Facility Interconnection Programs and Maximum Capacities

	Program	KS-Central	KS-Metro	MO-Metro	MO-West
NM	Net Metering	Res – 15 kW Com/Ind.–100 kW School–150 kW	Res – 15 kW Com/Ind.–100 kW School–150 kW	100 kW	100 kW
PG-NE	Parallel Gen- No Export	10 MW	10 MW	10 MW	10 MW
PG-RST	Parallel Gen- Renewable Source Std. Offer Tariff	Res– 25 kW Com/Ind.–200 kW School–1.5 MW	Res– 25 kW Com/Ind.–200 kW	100 kW	100 kW
PG-QFT	Parallel Gen- Qualifying Facility- Std. Offer Tariff	N/A	200 kW	100 kW	100 kW
PG-QFC	Parallel Gen- Qualifying Facility- Custom Agreement	10 MW	10 MW	10 MW	10 MW

Net Metering

Applicable to Customer-Generators with Renewable Energy Resources as separately defined by MO and KS statutes and regulations.

Contracts for service shall be where part or all of the electrical requirements of the Customer are provided by the Customer's on-premise DER Facility and where the Customer's DER Facility is connected for Parallel Operation with the Company's Distribution System.

The Customer DER Facility shall be appropriately sized at or less than the Customer's anticipated electric load requirements. Company determination will include, but not be limited to: Customer's load profile, Customer's peak load and Customer's monthly kWh usage.

The applicable tariff schedules for each Company service territory are:

- KS Central - Net Metering Rider, Schedule NMR
- KS Metro - Net Metering for Renewable Energy Sources, Schedule NM
- MO Metro - Net Metering Interconnection Application Agreement, Schedule NM
- MO West - Net Metering Interconnection Application Agreement, Electric

Parallel Generation – Non-Export

Applicable to Customers whose DER Facility is a Qualifying Facility under PURPA that will not export energy to the Company's Distribution System.

Contracts for Interconnection where the Customer's DER Facility is connected for Parallel Operation with the Company's Distribution System and the Customer's DER Facility electric output is solely for a Customer's site use with no export of power to the Company's Distribution System.

DER Facility Interconnections with the Company's Secondary Network Distribution System that utilize network protectors for system protection are required to be non-export Interconnections and be designed to ensure that there is no export of power at the Point of Interconnection.

A non-export Interconnection is available to all Customer DER Facility technologies and sizes up to 10 MW where one of the following requirements is met:

1) A reverse power protection device is installed
2) An under-power protection device is installed
3) The DER Facility equipment has been Certified Non-Islanding and the incidental export of power will be limited by the design of the Interconnection
4) The gross nameplate rating of the generating facility will not exceed 50 percent of the minimum electrical load of the Customer's facility over the previous 12 months.
5) The DER Facility completely offsets the facility load by being both (a) optimally sized to meet its peak demand with load following functionality on the DER controls and (b) ensuring Inadvertent Export of electric power from the DER Facility to the Distribution System occurs no more frequently than twice in any 24-hour period. Also, the Inadvertent Exports are no more than 60 seconds. For this, options 1) or 2) will also be required.

The Customer's DER Interconnection Agreement will specify the protective device requirements, settings and allowed level of Inadvertent Export that will be allowed. Inadvertent Export is not allowed for Interconnections to Secondary Networked Distribution Systems.

Metering of Non-Export Interconnections will use the standard service meters for residential and commercial tariffs without provision for metering or providing billing recognition of energy exported.

Parallel Generation – Renewable Sources – Standard Offer Tariff

Applicable to Customers with DER Facilities with Renewable Energy Resources as separately defined by MO and KS statutes and regulations, with a capacity that exceeds the limits of the Net Metering program.

Contracts for service shall be where part or all of the electrical requirements of the Customer are provided by the Customer's on-premise DER Facility and where the Customer's DER Facility is connected for Parallel Operation with the Company's Distribution System.

The applicable tariff schedules for each Company service territory are:

- KS Central – Parallel Generation Rider, Schedule PGR
- KS Metro - Parallel Generation Contract Service, Schedule PG
- MO Metro - Parallel Generation Contract Service, Schedule PG
- MO West – Parallel Generation Contract Service (Cogeneration Purchase Schedule), Electric

Parallel Generation – Qualifying Facility – Standard Offer Tariff

Applicable to Customers whose DER Facility is a Qualifying Facility under PURPA or is Renewable Source Generation with capacity that exceeds the limits of the Parallel Generation - Renewable Source Program.

Contracts for service shall be where part or all of the electrical requirements of the Customer are provided by the Customer's on-premise Generation Facility and where the Customer's Generation Facility is connected for Parallel Operation with the Company's distribution system.

The applicable tariff schedules for each Company service territory are:

- KS Central - no tariff exists, all QF Facilities use Custom Agreements
- KS Metro - Parallel Generation Contract Service, Schedule PG
- MO Metro - Parallel Generation Contract Service, Schedule PG
- MO West – Parallel Generation Contract Service (Cogeneration Purchase Schedule), Electric

Parallel Generation – Qualifying Facility – Custom Agreement

Applicable to Customers whose Generation Facility is a Qualifying Facility under PURPA that exceeds the limits of the Parallel Generation-Standard Offer Program.

Contracts for service shall be where part or all of the electrical requirements of the Customer are provided by the Customer's on-premise DER Facility and where the Customer's DER Facility is connected for Parallel Operation with the Company's Distribution System.

A DER Facility with generation capacity that is in excess of 10 MW will be subject to additional Southwest Power Pool (SPP) requirements and processes outlined in the Company's Facility Interconnection Requirements document.

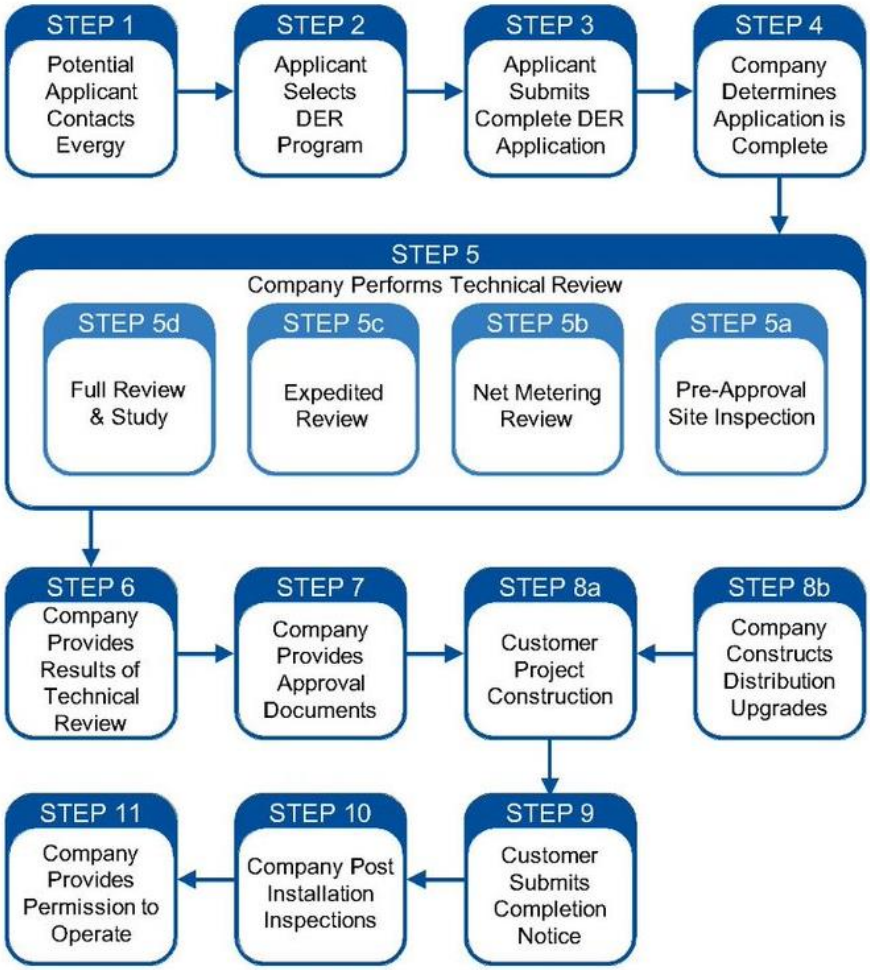
The applicable tariffs for each Company service territory are:

- KS Central – no tariff exists, all QF Facilities use Custom Agreements
- KS Metro – Parallel Generation Contract Service, Schedule PG
- MO Metro – Parallel Generation Contract Service, Schedule PG
- MO West – Parallel Generation Contract Service (Cogeneration Purchase Schedule), Electric

DER Interconnection Application Process

This section describes the Application and approval process for Customers in all Company Jurisdictions requesting to Interconnect a DER Facility with the Company's Distribution System. Figure 4 1 provides an illustration of the 11-step DER Interconnection Application process. The time required to complete the Application process will reflect the complexity of the proposed Interconnection. Net-Metering projects using Certified inverter-based equipment will move through the process more quickly, and several steps may be simplified depending on the detail and completeness of the Application and supporting documentation submit by the Applicant.

Figure 4- 1: DER Interconnection Application Process



STEP 1 – Potential Applicant Initiates Contact with Evergy

Customers interested in applying for DER Interconnection to the Company's Distribution System, must first contact the Company to obtain a copy of the Interconnection Application and obtain information on the requirements for DER Interconnection.

This initial potential Applicant communication could range from a general inquiry to a request for site specific information and may be made via web site, mail, phone or e-mail. Evergy's Energy Solutions Department is the initial single point of contact for processing all requests for DER Facility Interconnection to the Company's Distribution System. Contact us at:

Evergy, Inc.

Energy Solutions Department.

P.O. BOX 418679

Kansas City, MO 64141

ATTN: Net Metering/DER Interconnection

816-242-5971

netmeteringapp@evergy.com

Upon request, the Company will provide information and documents (such as the appropriate Interconnection Application, technical information, listing of Certified Equipment, Application fee information, applicable tariff schedules and metering requirements) to a potential Applicant. Customer should understand this information before proceeding to apply for Interconnection.

Unless otherwise agreed upon, all such information shall normally be sent to an Applicant within five (5) Business Days following the initial request from Applicant.

Step 2 – Applicant Selects a DER Interconnection Program

The Applicant selects the program under which their DER Interconnection Application will be made. There are five (5) programs available for Customer connecting qualified DER Facilities including:

- Net Metering
- Parallel Generation-No Export
- Parallel Generation-Renewable Source
- Parallel Generation-Qualifying Facility Standard Offer Tariff, and
- Parallel Generation-Qualifying Facility Custom Agreement.

The eligibility criteria for each program and links to the appropriate tariff for each Company jurisdiction are provided in Section 3 of this Document

Step 3- Applicant Submits a Complete DER Interconnection Application

The potential Applicant submits a complete and valid DER Interconnection Application in the name of the Customer to the Company.

Applicant shall submit a separate DER Interconnection Application for each Point of Interconnection (Point of Common Coupling).

On Multi-Dwelling Unit (MDU) buildings with individually metered dwelling units, individual DER Interconnection Applications and Agreements are required for each DER Facility serving each dwelling unit.

The expansion or modification of an existing operating DER Facility requires a new DER Interconnection Application which shall be treated the same as a DER Interconnection Application for a new DER Facility.

Installation of a new, or expansion of an existing DER Facility, in an Evergy KS jurisdiction will result in the Customer being placed on the most appropriate and current rate for DG Customers.

DER Interconnection Applications

Applications for DER Interconnection for each of the Company jurisdictions can be obtained on-line using the following links.

Net Metering Applications

Evergy Kansas Central - Application/Agreement for Interconnection of a Net Metered Facility

Online: Evergy KS Central DER-Net Meter Application Portal

Evergy Kansas Metro - Application/Agreement for Interconnection of a Net Metered Facility

Online: Evergy KS Metro DER-Net Meter Application Portal

Manual :Evergy KS Metro DER-Net Metering Application Form

Evergy Missouri Metro – Interconnection Application/Agreement for Net Metering Systems with Capacity of One Hundred Kilowatts (100 kW) or Less

Online: Evergy MO Metro DER-Net Metering Application Portal

Manual: Evergy MO Metro DER-Net Metering Application Form

Evergy Missouri West – Interconnection Application/Agreement for Net Metering Systems with Capacity of One Hundred Kilowatts (100 kW) or Less

Online: Evergy MO West DER-Net Metering Application Portal

Online: Evergy MO West DER-Net Metering Application Form

Solar Rebate Applications

Solar rebates may be available within the Company's Missouri jurisdictions for residential systems with a solar capacity up to 25 kW DC and non-residential systems up to 150 kW DC. Applicant may install a larger system if usage justifies it but the rebate will only be for up to 25 kW DC for residential systems or

150 kW DC for commercial systems. Systems greater than 100 kW or larger than the Customer's usage justifies must select a Parallel Generation program as they do not qualify for Net Metering.

Parallel Generation Applications

Applications for DER Interconnection under one of the Parallel Generation programs are made using the on-line Net Metering Application for the appropriate Company jurisdictions (see Section 4.3.1.1) and selecting the Parallel Generation option. Applications for Parallel Generation programs require submission of additional data about the proposed DER facility. Appendix C contains supplemental data submission forms for Applications for Parallel Generation Interconnections.

Transfer of DER Facility Ownership

The approved DER Facility Interconnection shall survive the transfer of ownership or operational control of the DER to a new Customer-Generator if the new Customer-Generator agrees to comply with the terms and conditions of the approved Interconnection Agreement.

The new Customer-Generator will be required to complete, sign and submit the DER Transfer of Ownership/Operational Control Application, provided as Appendix D of this Document, to the Company no less than thirty (30) days prior to the transfer.

Mail completed form to;

Evergy, Inc.
P.O. BOX 418679
Kansas City, MO 64141
ATTN: Solar Rebates/Net Metering

The Company will review the submitted DER Transfer of Ownership/Operational Control Application within fifteen (15) days of receipt. If approved, The Company will complete Section G and forward a copy of the completed Application/Agreement back to the new Customer-Generator, thereby authorizing the new Customer-Generator to operate the existing DER Facility.

DER Interconnect Application Documents

All DER Interconnection Applications must include the following documents. Evergy will only accept and review completed Applications adhering to the following document requirements.

DER Interconnection Application

- Application form is correct for the Evergy jurisdiction and Program
- Applications shall be legible.
- All applicable fields will be filled out as required. Incomplete Applications will be returned.
- The name and address on the Application must match the name and address on the Customer bill. Otherwise, additional documentation should be provided to support the applicant's association with the account holder.
- Net Metering systems are to be sized to offset part or all of the Customer's own electrical energy requirements.

Parallel Generation Supplemental Application Data

- Applications for parallel generation programs require submission of a completed Parallel Generation Application Supplemental Data form. See Appendix C.

One-line Diagrams

- Diagrams shall be project specific. Generic drawings from specification manuals will not be accepted.
- Diagrams must be legible. Drafting quality is preferred.
- Diagrams should include: resource type, existing generation, storage devices, Inverters, load center, production meter, DER disconnect switch, and service meter.
- Appendix B of this Document provides a one-line diagram for self-install Applicants.

Installation Plan

- A legible general site plan or map drawing of the installation shall be included. Detail architectural or construction drawings are not required
- The plan or map shall identify the location of the source of generation, any existing generation, energy storage, production meter, DER disconnect switch and service meter.

Equipment Specification Sheets for Inverter Based Systems

The following specification sheets are required for all equipment applicable to the Application.

- Photovoltaic PV panel specification sheets referencing UL Certification
- Wind turbine specification sheets referencing UL Certification
- Battery storage specification sheets referencing UL Certification
- Power Inverter specification sheets referencing UL Certification
- Inverters shall be Certified as 'Grid Support Utility Interactive Inverters'
- Non-UL Certified Equipment will not be accepted.

Equipment Specification Sheets for Non-Inverter Based Systems

The following specification sheets are required for all equipment applicable to the Application.

- Distributed Generator specification sheets referencing UL certifications.
- Protection and control relay specification sheets referencing UL certifications.
- Interconnection equipment specification sheets referencing UL certifications.
- Non-UL Certified Equipment will not be accepted

DER Interconnection Application Submittal

Application submittal using the Company's online DER Interconnection Application portal is preferable, but Applications will also be accepted in hardcopy or electronic format.

Online Applications shall be made using the Company web portal via the links provided in Section 4.3.1.1. Appendix A of this Document provides a user guide and tip sheet for use of the online Application portal.

Hard copy Applications will only be accepted via mail delivery to the address on the Interconnection Application/Agreement.

- Electronic Application documents shall be submitted as a single PDF file.
- JPEG, IMG or other file formats will not be accepted.
- Unless the file size exceeds e-mail limitations, multiple files will not be accepted.
- E-mail completed form to; netmeteringapp@evergy.com

For Applications submitted via mail and e-mail, the Company will, within three (3) Business Days of receipt, notify the Applicant by e-mail that an Application has been received.

DER Application Process Fee

A DER Interconnection Application will not be deemed complete until the DER Interconnection Application processing fee, if applicable, is received by the Company. The following table lists the Application fees by Program and Jurisdiction. The Application processing fee is non-refundable unless the Application is denied.

Table 4-1: DER Interconnection Application Fees

	Program	KS-Central	KS-Metro	MO-Metro	MO-West
NM	Net Metering	$100	$100	- - -	- - -

Step 4 - Company Determines Application is Complete and Valid

DER Interconnection Application will be considered administratively complete and valid when all items required for the Application have been received by the Company and deemed valid by the Company.

The Company shall notify Applicant notification by e-mail within ten (10) Business Days of receipt of the original DER Interconnection Application, if the Application is deemed administratively complete and valid. If a DER Interconnection Application fails to meet the requirements, the Company will provide Applicant with the reasons why the Application is not administratively complete and valid. Applicant must satisfy the identified Application deficiencies before the Application will be deemed administratively complete and valid. If Applicant does not satisfy the Application deficiencies within ten (10) Business Days of notice, the Application will be deemed withdrawn and no further review by the Company will be performed.

Step 5 – Company Performs Technical Review

There are several levels of technical review performed on Applications for Interconnection of DER Facilities including a simplified review process for Net Metering Applications. The level of technical review performed is dependent on the Interconnection program selected, the DER technology proposed, and the size of the DER Facility. The following sections outlines the applicability for each level of review.

Pre-Approval Site Inspection

The Company will perform a pre-approval site inspection for all DER Interconnection Applications in the Evergy Missouri West and Evergy Metro jurisdictions. This inspection is optional in the Evergy Kansas Central jurisdiction and will be performed only upon request by the Applicant.

The pre-approval site inspection will identify any issues with the Customer's existing service entrance conductors and equipment that will need to be corrected by the Customer to bring the Customer's service in compliance with the current Company Electric Service Standards. Some of the inspection items include:

- verification of Customer service entrance equipment characteristics and clearances
- verification of the Company meter type and number
- verification of Company service size type and clearances
- verification of Company transformer size, type, and voltage
- identification of any Customer required service entrance alterations/upgrades
- identification of any Company needed service or transformer alterations/upgrades

The Company will complete the pre-approval site inspection within thirty (30) Days of completion of STEP 4 and will provide the results of the pre-approval site inspection to the Applicant in STEP 6.

Net Metering Technical Review

The Net Metering technical review will be performed on all Applications for Interconnection under the Net Metering program. The Net Metering technical review provides for the simplified review of small Inverter based DER Interconnections that will not have a significant impact on the Company's Distribution System.

During the technical review, the Company may contact the Applicant, via phone or e-mail, to request additional or clarifying information or data regarding the Interconnection Application. If Applicant does not satisfy the data request within ten (10) Business Days of notice, the Application will be deemed withdrawn and no further review by the Company will be performed.

The Company will complete the Net Metering Technical Review within thirty (30) Days of completion of STEP 4 for Applications with a capacity less than 10 kW in Missouri and less than 15 kW in Kansas. This review will be complete within ninety (90) Days for all larger Net Metering Applications. If all Net Metering evaluation points are passed, the Application will be deemed approved and the Interconnection process will move to STEP 6. If any of the evaluation points are not passed, the Application will be deemed 'deficient' and move to STEP 6 for resolution of the deficiency.

Expedited Technical Review

The expedited technical review will be performed on all Applications for Interconnection under any of the Parallel Generation Interconnection programs for a DER Facility deploying only Inverter-based technologies and with an aggregate DER capacity less than 500 kW. The expedited technical review provides for the streamlined review of Inverter-based DER Interconnections that will not have a significant impact on the Company's Distribution System.

During the technical review, the Company may contact the Applicant, via phone or e-mail, to request additional or clarifying information or data regarding the Interconnection Application. If Applicant does not satisfy the data request within ten (10) Business Days of notice, the Application will be deemed withdrawn and no further review by the Company will be performed.

The Company will complete the expedited technical review within thirty (30) Business Days of completion of STEP 4.

If all expedited evaluation points are passed, and no Customer service equipment or Distribution Upgrades are required to accommodate the Interconnection, the Application will be deemed approved and the Interconnection process will move to STEP 6.

If any of the expedited evaluation points are not passed, but can be passed with Customer service equipment or Distribution System Upgrades, the Application will be conditionally approved and the Interconnection process will move to STEP 6.

If any of the expedited evaluation points cannot be passed, with or without Customer service equipment or Distribution System Upgrades, the Application will be deemed 'deficient' and move to STEP 6 for resolution of the deficiency.

Full Interconnection Review and Study

The full Interconnection review and study will be performed on all Applications for Interconnection under any of the Parallel Generation Interconnection programs for a DER Facility deploying non-Inverter based technologies or Inverter-based DER technologies with an aggregate DER capacity greater than 500 kW. The full Interconnection review and study provides for the complete technical review and study of the proposed DER Facility Interconnection that may have a significant impact on the Company's Distribution System. For a DER Facility with a capacity greater than 5 MW the Interconnection review study may also include an analysis of the impact on the Company's Transmission System.

During the technical review, the Company may contact the Applicant, via phone or e-mail, to request additional or clarifying information or data regarding the Interconnection Application. If Applicant does not satisfy the data request within ten (10) Business Days of notice, the Application will be deemed withdrawn and no further review by the Company will be performed.

The Company will complete a preliminary technical review of the Application within thirty (30) Business Days of completion of STEP 4. Upon completion of the preliminary technical review, the Company will provide the Applicant the results of the preliminary review, review additional technical data that may be required by the Company to complete the system study, and provide an estimated timeline for completion of the technical review.

If all full Interconnection review and study points are passed, and no Distribution Upgrades are required to accommodate the Interconnection, the Application will be deemed approved and the Interconnection process will move to STEP 6.

If any of the full Interconnection review and study points are not passed, but can be passed with Interconnection Facilities or Distribution System Upgrades, the Application will be conditionally approved and the Interconnection process will move to STEP 6.

If any of the full Interconnection review and study points cannot be passed, with or without Distribution System Upgrades, the Application will be deemed 'deficient' and move to STEP 6 for resolution of the deficiency.

Step 6 – Company Provides Results of the Technical Review

The Company will provide the Applicant the results of the Technical Review by email within the time specified for each level of technical review. If the Technical Review finds that the Applicant's proposed system cannot pass all of the relevant technical screens or is not in compliance with the Interconnection requirements outlined in this Document, the Application will be determined to be 'deficient' and the Application will be denied. The Company shall provide Applicant with the basis for the denial.

The Applicant may resubmit a revised Application or request an appeal of the denial within five (5) Business Days of the notification of Application denial. The Applicant will have one opportunity to revise the Application for re-review to address deficiencies or omissions identified in the denial without resubmitting a new Application. An appeal should be based upon the conditions for denial and include; 1) the reason for the Applicant's appeal, and 2) detailed documentation to support the appeal.

If the Technical Review finds that the Applicant's proposed system passes all of the relevant technical screens and is in compliance with the Interconnection requirements outlined in this Document, and there are no requirements for Interconnection Facilities or Distribution Upgrades the Application will be approved and the process proceeds to STEP 7.

If the Technical Review finds that the Applicant's proposed system passes all of the relevant technical screens and is in compliance with the Interconnection requirements outlined in this Document, but there are requirements for Interconnection Facilities or Distribution Upgrades, the Application will be 'conditionally' approved and the process proceeds to STEP 7.

Step 7 – Company Provides Application Approval Documents

The Company provides the Applicant the following notifications and documentation for approved Applications based on the nature of the requested Interconnection.

Net Metering Interconnections

Net Metering Interconnections use a single document that serves as both the Application and the Interconnection Agreement.

For 'approved' Net Metering Applications, the Applicant will receive an Interconnection 'pre-approval' notification by e-mail informing them that the Application has been approved and the Interconnection has pre-construction approval and may proceed with STEP 8.

For conditionally approved Net Metering Applications, the Applicant will receive the Interconnection 'pre-approval' notification and will be provided additional Interconnection requirements. The Company will provide the Applicant with any changes to the Customer's service equipment that must be made by the Applicant/Customer prior to Interconnection. In certain circumstances, the Company may require the Customer to pay for required Distribution Upgrades. If so, a description of work and a cost estimate will be provided to the Applicant.

Parallel Generation Interconnections

For Parallel Generation Interconnections a Distribution Facility Interconnection Agreement will be provided that is separate from the Application. A proforma Distribution Facility Interconnection Agreement template is provided in Appendix E.

For both 'approved' and 'conditionally' approved Parallel Generation Applications, the Applicant will receive an Interconnection 'pre-approval' notification by e-mail informing them of the results of the technical review. With the pre-approval notification, the Company will provide the Applicant with a DER Facility-specific Distribution Facility Interconnection Agreement that outlines all of the technical, operational, and financial requirement and commitments of the Customer and Company.

When the Customer signs and returns the Distribution Facility Interconnection Agreement, it is then counter-signed and dated by the Company. Once signed and dated by the Company, the DER Facility Interconnection is approved and the process may proceed with STEP 8.

Step 8 – Project Construction

The Applicant and the Company shall collaborate to identify a planned in-service date and develop a project schedule.

Customer DER Facility Construction

The Applicant shall build the DER Facility in accordance with the Company-approved design, Application approval documents and the project schedule.

Note: Having a Company approved Application prior to the Customer installation of DER equipment is highly desirable but is not an absolute requirement.

A) DER equipment installed prior to Application approval may be subject to rework to bring the DER Facility into compliance with an approved design.
B) Rework resulting from early installation will be the responsibility of the Applicant.

Utility Distribution Upgrades

The Company will commence construction/installation of system modifications in accordance with the project schedule. The Distribution System modifications will vary in construction time depending on the extent of work and equipment required; the schedule for this work is to be discussed and agreed upon with the Applicant.

Step 9 – Customer Submits Installation Completion Notification

Upon completion of the DER Facility installation the Customer notifies the Company and requests the post-installation inspections.

It is the Customer's responsibility to ensure that any electrical inspections required by local governmental agencies are complete and any applicable permits are obtained before the submitting the Project Installation Complete notification.

The notification of project installation completion will reference the following:

- Name of applicant (Customer)
- Address of installation
- Type of project (PV, wind, etc.)
- Photos of installation (generation meter, DER AC disconnect, Inverter, and solar panels, wind turbine, or other generation or battery storage equipment).
- Inverter and/or relay settings.

The Company approved DER Facility Application shall be valid for 1 year of approval. If the Applicant does not submit the Project Installation Complete notification within 1 year of approval, the Applicant must resubmit a new Application.

Step 10 – Post Installation Inspections

To ensure that the system has been installed in accordance with all Company DER Interconnection requirements, the Customer submitted specifications, and the terms of the DER Facility Interconnection Agreement a post installation inspection will occur. The Company must perform a post-Installation inspection of the system before approving Parallel Operations. The post-installation inspections will be completed within twenty-one (21) Days in Missouri, fifteen (15) days in Kansas, of receipt of the Project Installation Complete Notification with appropriate photos.

Depending on the required protective devices for the DER Facility, one or more of the following types of inspections will be performed. If any of the post installation inspections fail, Customer will need to correct the issues identified and request a re-inspection. The Company may be allowed per tariff to apply a charge for additional inspections or site visits.

Field Design Inspection

This inspection will verify that UL 1741 Certified Equipment, generation meter socket, DER AC disconnect are installed and interconnected according to Company requirements. Validation of Inverter settings may also be performed as part of this inspection.

Metering Inspection

A metering inspection and meter set/exchange is scheduled immediately after the Field Design Inspection has been approved and any required city electrical inspection clearance has been received. This inspection will verify the Generation and service metering elements are installed according to Company requirements.

Protection/Relay Inspection

DER Facilities or Generating systems where protective devices and changes to protective device settings are required will need to have specialized testing performed. These inspections are for facilities where the functional and operational testing of the data telemetry and communications, relay systems, and other protective devices are required.

Step 11 – Company Issues Permission to Operate

After a satisfactory post-installation inspection, the Customer-Generator will receive a written approval from Evergy to operate the system in parallel with the Company Distribution System. This approval is commonly known as the Permission to Operate (PTO). Parallel operation of the Customer-Generator's DER Facility is only allowed after receipt of a written PTO from the Company.

General DER Facility Interconnection Requirements

All Interconnections of Customer DER Facilities with Company's Distribution System may be permitted provided such DER Facility Interconnection complies with the procedures and requirements set forth herein.

Compliance with Statues, Regulations, and Codes

Interconnection of Customer Generation Facilities with the Company's Distribution System shall be governed by all applicable Local, State and Federal statutes. Interconnection of a Customer's DER Facility with the Company's Distribution System shall further be governed by any applicable statute, rule, order, provision, guide, or code of an organization, council, and institute, regulatory or governing body having jurisdiction over such matters.

The Customer's DER Facility shall be installed in accordance with all provisions set forth in National Electrical Safety Code (ANSI C2), National Electrical Code (NFPA70), or North American Electric Reliability Corporation (NERC) Reliability Standards as well as any standards and regulations set forth by Regional Reliability Organizations, American National Standards Institute (ANSI), Institute of Electrical and Electronics Engineers (IEEE), or other regulatory or governing body having jurisdiction.

Customer shall be responsible for compliance with all permits, licenses, fees, rules, regulations, standards, agreements, ordinances, inspections and other requirements imposed by Company or any regulatory or governmental body having jurisdiction. There is no obligation on the part of the Company to interconnect, or to remain interconnected when Customer's DER facility is out of compliance. In addition, Customer shall be responsible for and Company shall require Customer facilities or the Interconnection between Customer's facilities and the Company's Distribution System to be modified in accordance with all applicable statutes, rules, orders, provisions, guides, or codes of an organization, council, institute, regulatory or governing body having jurisdiction over such matters.

Federal Regulation References:

- 18 CFR 292: Public Utility Regulatory Policies Act (PURPA)

Missouri Statutes and Rules References:

- MO 4 CSR 4240-20.060: Cogeneration
- MO 4 CSR 4240-20.065: Net Metering
- MO Rev Stat § 386.890: Net Metering and Easy Connect Act

Kansas Statutes and Rules References

- K.A.S. 66-1,184: Contracts for parallel generation services …
- K.A.S 66-1263 through 1271: Net Metering and Easy Connect Act
- K.A.R. 82-17: Net Metering

Company Rate Schedules, Rides and Electric Service Standards Requirements

It is the responsibility of the Customer or DER Operator to be in compliance with the requirements of rate schedules, riders, Electric Service Standards, and applicable regulations at the time of Application or subsequent modification to the DER Facility. All interconnected Customer DER Facility must comply with the design requirements and service standards listed in the Company rate schedules and this Document

to protect the Company's Distribution Systems and ensure safe access to electric service for all Customers.

In the event of an inconsistency between various statutes, regulations, codes, this Document, or an Interconnection Agreement, the inconsistency shall be resolved by assigning an order of precedence from highest to lowest as follows: 1) State statutes; 2) Commission Rules;
3) Company tariffs; 4) National standards, codes and certifications; 5) DER Interconnection Agreement; 6) This Document and Company Electric Service Standards.

Customer DER Facilities are not allowed to operate in parallel with the Company Distribution System without an approved DER Interconnection Application/Agreement and Company issued Permission to Operate (PTO). DER Facilities found to be in non-compliance will be required to discontinue Parallel Operation until the DER Facility is brought into compliance. Failure to discontinue Parallel Operation shall be cause for service disconnection.

Applicable Interconnection Frequency and Voltages

All DER Facility Interconnections to the Company Distribution System shall be alternating current (AC) at a nominal frequency of 60 hertz (Hz) and shall be at the voltage and phase of the Company's established primary or secondary Distribution System immediately adjacent to the Point of Interconnection.

Nominal primary distribution voltage classes used by the Company are 4 kV, 12.47 kV, 13.8 kV, 24.9 kV and 34.5 kV. Nominal secondary distribution voltages provided by the Company are 120/240 volt single phase and 120/208 and 277/480 volt three phase.

Protection and Control Devices

The Company's protection requirements are designed and intended to protect its Distribution System. DER Facility protective devices (relays, circuit breakers, etc..) required for Interconnection must be installed as required by the Company, IEEE 1547, the NEC and in accordance with this Document and the approved Interconnection Agreement. The specific protection requirements will differ based on the interconnection factors.

- The size and type of DER
- The number of DER
- Distribution System configuration and characteristics
- Location of the DER Facility on the Distribution System

Depending on the Interconnection factors mentioned above, Customers may need to install additional protective relays to adequately protect their DER Facility and the Company Distribution System. Customers are responsible for protecting their own systems and equipment from faults or interruptions originating on either Company's side or Customer's side of the Interconnection.

For the protective and control devices required under IEEE 1547, the settings specified in IEEE 1547 shall be adopted. Where IEEE 1547 allows variability of settings, the settings specified in Section 5 of this Document and/or the DER Interconnection Agreement shall be implemented.

For most smaller DER Units with inverter-based interfaces, certified Interconnection packages are accepted as meeting with this protection criteria. DER Units with non-certified interfaces will require a

design and relay review by the Company and the use of utility grade relays is required. Utility grade relays should:

1) Meet or exceed ANSI/IEEE Standards for protective relays (C37.90, C37.90.1 and C37.90.2)

2) Provide extensive documentation covering Application, testing, maintenance and service

3) Provide positive indication of what caused the trip (targets) that can be reset manually

4) Provide a means of testing that does not require extensive unwiring (e.g. test blocks, etc.)

This interconnection process allows flexible interconnection where customers install UL listed devices that can manage their system output to a level lower than the DER name plate. The device must be approved during the application process.

DER Facility Utility Disconnect

Customer's DER Facility must include a manual visible break AC disconnect switch electrically located between the Customer's DER Facility and the Point of Connection (PoC) which is accessible to Company staff and lockable with Company locks. For three-phase Interconnections the AC disconnect shall be gang-operated. The manual disconnect switch should be marked by the Customer "Alternative Generator AC Disconnect Switch". This allows Company crews to disconnect the Customer DER Facility from the Company's system for maintenance, reliability and safety concerns.

For DER Facilities where the PoC is made between the Company's service meter and the Customer's primary service disconnect(s), the disconnect may be a lockable fused disconnect that is the Customer's service disconnect for the DER Facility.

The disconnect switch should be mounted within sight of the utility service meter and no more than 10 feet from the meter. If this is not practical, the Customer must obtain Company approval to mount the disconnect switch at a mutually agreeable location. In this case, the Customer is required to place a permanent sign (engraved on hard plastic and screwed in place, use of a label, marker, or glued on strips is not acceptable) describing the placement of the disconnect switch. This sign should be mounted at the utility service meter enclosure where easily visible.

Because of increased risks and potential hazards inherent with operating Customer's DER Interconnected with the Company's Distribution System, maintaining safety and quality of electrical service is paramount. Company shall disconnect Customer's DER facility anytime Customer's DER Facility pose a dangerous condition and such disconnection is appropriate to protect safety of Company's employees, Customers, general public, or to maintain integrity of the Company's Distribution System.

DER's with a capacity greater than 500kVA may be required to be equipped with a recloser at the point of common coupling (PCC). This requirement may be reduced to 350 kVA in certain areas. The need to include a recloser will be communicated to the customer after the technical review.

Wholesale customers can choose to use a recloser. Customers will be required to use Evergy provided reverse settings if they choose not to use a recloser.

Generation Production Meter

DER Interconnections

Company requires that all DER Interconnections include a Customer provided meter socket(s)/enclosure(s) for a Company generation production meter(s) to measure the total AC output of all generation units. When practical, the generation production meter(s) should be installed adjacent to

the Company's service meter. Power must be present inside generation meter socket prior to Company setting meter. Meter socket shall have customer provided plastic blanking plate installed when generation meter socket is energized.

If a DER Facility is required to provide telemetry to the Company, the generation production meter may also be used in some situations to provide a portion of the required telemetry data.

Additional metering requirements

Additional metering may be required for abnormal cases which includes, but not limited to large arrays, and multiple battery installations.

Utility Service, Service Entrance and Metering Considerations

Interconnection of a DER Facility at an existing service location is considered a change in electric service and the Customer's service entrance shall be in compliance, or brought into compliance, with the current Company Electric Service Standards in order to interconnect.

DER Facility Point of Connection

The PoC of a Customer's DER Facility is permitted to be on either the load side or supply side of the Customer's service disconnect.

Load-Side DER Point of Connection

The Company prefers the Customer's DER PoC be on the load side of the Customer's service disconnect. Table 5-1 provides the maximum branch circuit ampacity and aggregate DER capacity allowed where the DER PoC is located at the opposite end of the load panel from the primary power source. For installations where the DER PoC is made elsewhere on the load side of the service disconnect, the NEC often requires the ampacity of the load panel and feeder circuit conductors to be increased to accommodate the capacity of the primary power source and the DER. Refer to the NEC Section 705.12 and local electrical codes for specific requirements.

Table 5-1: Maximum Breaker Rating and KVA[1] for Load-Side Connected DER

Main Disconnect or Feeder Circuit	Bus	Branch Circuit	1Ø 120/240 V	3Ø 120/208 V	3Ø 277/480 V
100 A	100 A	20 A	3.84 kVA	5.76 kVA	13.30 kVA
100 A	125 A	50 A	9.60 kVA	14.40 kVA	33.24 kVA
200 A	200 A	40 A	7.68 kVA	11.52 kVA	26.59 kVA
200 A	225 A	70 A	13.44 kVA	20.16 kVA	46.54 kVA
400 A	400 A	80 A	15.36 kVA	- - -	- - -

Supply-Side Point of Connection

For a Customer DER Facility greater than those listed in Table 5-1, a supply-side DER PoC is usually the desired method of installation. The DER PoC is established by connecting a DER fused disconnect between the meter socket and the main service disconnect. The supply-side POC can be established by

tapping service entrance conductors in a tap box or by use of a double lug meter enclosure if it accommodates both service entrance conductors properly. The Company prefers the use of a double lug meter enclosure.

DER supply-side connections to existing installations require verification of suitability of the service conductors and may require an increase in ampacity and/or conductor size. Refer to the NEC Section 705.11 and local electrical codes for specific requirements. As electric storage DER are both electric production sources and loads, the meter enclosure and service entrance conductors with a supply-side DER PoC must be sized to accommodate the sum of the main service disconnect(s) and the DER service disconnect.

When DER Line-Side Tap is Preferred

When a Customer's inverter based DER Facility is greater than 7.6 kW AC (40A breaker) on a 200A system, a line-side tap with a second fused disconnect/breaker is usually the preferred installation. To accommodate a line-side tap, the Customer may be required to upgrade their meter socket with a meter socket and connections sized per NEC.

The line-side tap may be made using either a tap box or a double lug meter enclosure. A double lug meter enclosure may only be used if it accommodates both service wires properly. A double lug connection will not be permitted in ganged meter bank installations.

[1] Where a power control system (PCS) is installed in the DER in accordance with the NEC and local electrical codes, the output setting of the PCS controller is considered to be the rating of the DER.

Multi-Dwelling Unit Buildings

On Multi-Dwelling Unit (MDU) building with individually metered dwelling units, individual DER Interconnection Applications and Agreements are required for each DER serving each dwelling unit. Each DER is analyzed and approved based on the historical electrical usage of the dwelling unit.

On Multi-Dwelling Units buildings where all dwelling units are served by a single 'master' meter (e.g. nursing homes, assisted living facilities, etc.), a single DER Interconnection Application/Agreement is permitted for the MDU building.

Monitoring and Control Telemetry

The Company requires all DER with a capacity greater than 500 kVA be monitored by the Company's Distribution SCADA systems. The SCADA data points and telemetry requirements will be specified in the Customer's DER Interconnection Agreement.

DER Facility Inspection and Testing

IEEE 1547 provides periodic testing requirements to verify that the DER Facility continues to meet the requirements of interconnection and interoperability requirements of the standard. Periodic testing for all interconnection related protection functions shall be performed by the Customer-Generator at intervals required by the Company. If testing is required then IEEE 1547.1, Clause 8, will be utilized for in-field verification of conformance to IEEE 1547.

The following subsections specify the Company's currently required DER Facility testing requirements. The Customer-Generator shall maintain a record of the results of these tests and, upon request, shall provide a copy of the test results to the Company.

1. If the Customer-Generator is unable to provide a copy of the test results upon request, the Company shall notify the Customer-Generator by mail that the Customer-Generator has thirty (30) days from the date the Customer-Generator receives the request to provide the results of a test to the Company.

2. If the Customer-Generator's equipment ever fails this test, the Customer-Generator shall immediately disconnect the DER Facility.

3. If the Customer-Generator does not provide the results of a test to the Company within thirty (30) days of receiving a request from the Company or the results of the test provided to the Company show that the unit is not functioning correctly, the Company may immediately disconnect the DER Facility.

4. The DER Facility hall not be reconnected to the Company's Distribution system by the Customer-Generator until the DER Facility is repaired and operating in a normal and safe manner.

Cease-to-Energize Test for Inverter-based DER

The Customer-Generator shall, at least once every year, conduct a test to confirm that the DER Facility automatically ceases to energize the output interconnection equipment output voltage goes to zero (0) within two (2) seconds of being disconnected from the Company's Distribution System. Disconnecting the DER Facility from the Company's Distribution System at the visible disconnect switch and measuring the time required for the unit to cease to energize the output shall satisfy this test.

Site Specific Inspection and Testing

The Customer-Generator shall perform the DER Facility inspections and testing at the frequency as may be specified in the Customer-Generator's Facility Interconnection Agreement

Technical Specifications and Performance Requirements

The IEEE 1547 standard provides a technology-neutral approach in which performance categories are assigned to specify required capability for reactive power performance, voltage regulation performance, and response to abnormal conditions. Performance categories describe minimum equipment technical capability and the required ranges of allowable settings.

Company requires that the Customer's DER Facility Interconnection with the Company Distribution System shall meet all of the technical specifications and performance requirements of IEEE 1547, unless specified otherwise in this Document or the DER Interconnection Agreement.

This section provides an overview of some of the key technical and performance requirements of IEEE 1547 and where IEEE 1547 allows variability of parameter settings, the Company required settings are specified.

In some portions of this section, IEEE 1547 language has been adopted directly, in others, IEEE 1547 requirements have been interpreted and paraphrased. The IEEE 1547 language that has been adopted directly is followed by citation in parentheses that lists the IEEE 1547 reference.

General Technical Specifications and Performance Requirements

Figure 6-1 contains a depiction and description of the relationship of some key terms used throughout this Document. The usage of these terms as it relates to Figure 6-1 is consistent with IEEE 1547 definitions. Each of the terms are defined in Section 2 of this Document.

Reference Point of Applicability

IEEE 1547 Clause 4.2 defines the Reference Point of Applicability (RPA) as the location where the Interconnection and performance requirements specified in IEEE 1547 shall be met. See IEEE 1547 for more information. Unless required otherwise in IEEE 1547 or the DER Interconnection Agreement, the RPA will be:

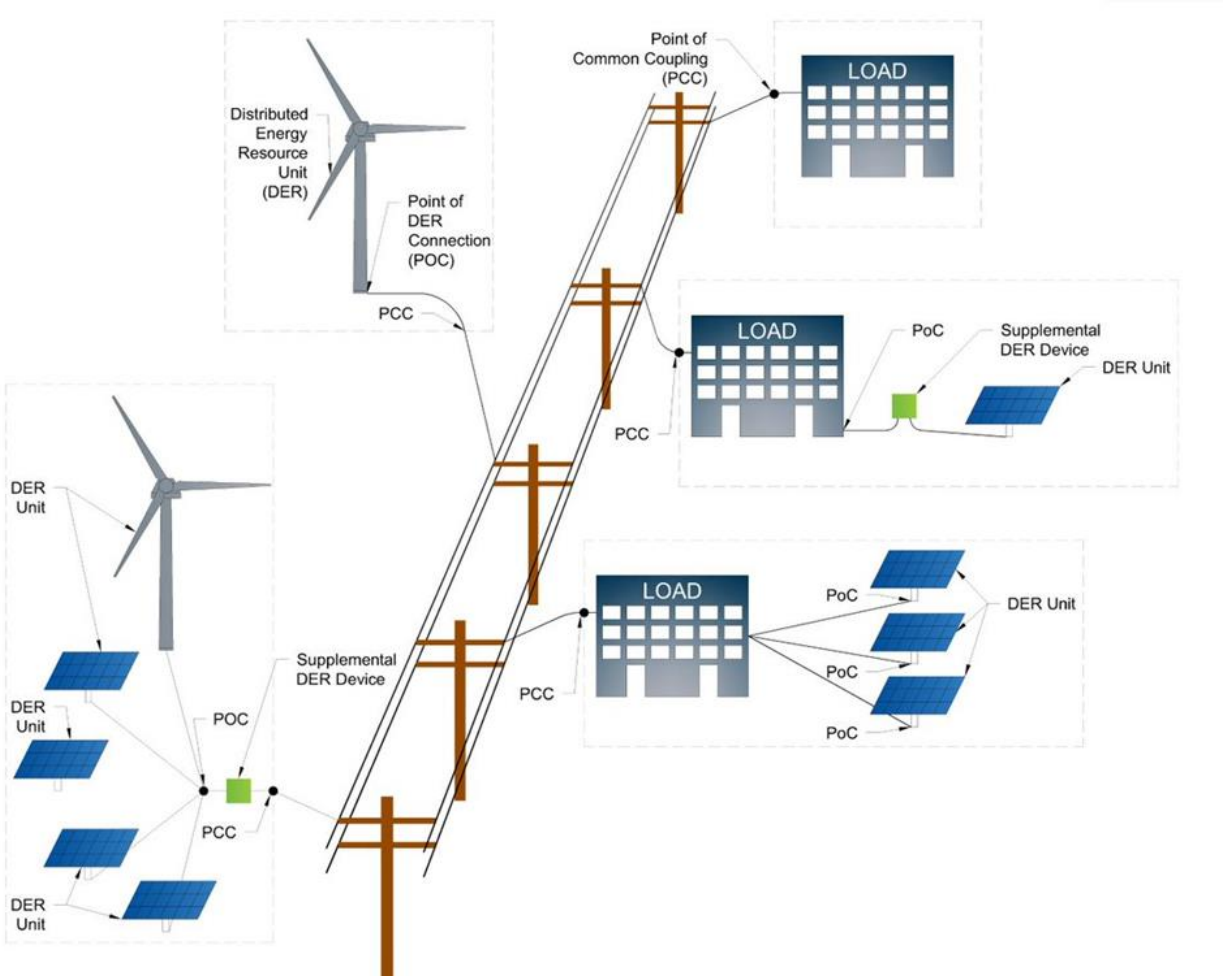
A) For a Customer DER Facility with an Aggregate DER Nameplate Rating of equal to or less than 500 kVA and zero sequence continuity is maintained between the PCC and PoC, the RPA shall be the POC.

B) For a Customer DER Facility with an Aggregate DER Nameplate Rating of equal to or less than 500 kVA and zero sequence continuity is not maintained between the PCC and PoC, the RPA for all performance requirements other than the response to Area EPS abnormal conditions specified in 6.2 and 6.4 shall be the POC. The RPA for performance requirements 6.2 and 6.4 shall be a point between, or including, the PoC and PCC that is appropriate to detect the abnormal voltage conditions.

[1] When the zero sequence continuity is broken, for example by a delta-wye transformer between the PCC and the PoC, the voltages at the PoC may not be representative of the voltages at the PCC under abnormal voltage conditions.

C) For A Customer DER Facility where the Aggregate DER Nameplate Rating is greater than 500 kVA, the RPA shall be the PCC.

Figure 6- 1: Illustration of Key Terms



Cease to Energize Performance Requirements

In the Cease to Energize state, the DER shall not deliver active power during steady-state or transient conditions. The requirements for *Cease to Energize* shall apply to the point of DER connection (PoC). (IEEE 1547 Clause 4.5, par. 1)

Import of active power and reactive power exchange in the *Cease to Energize* state is permitted only for continuation of supply to DER housekeeping and auxiliary loads. (IEEE 1547 Section 4.5, par. 4)

Alternatively, the requirements for Cease to Energize may be met by disconnecting the local EPS, or the portion of the local EPS to which the DER is connected from the Area EPS. The DER may continue to deliver power to the portion of the Local EPS that is disconnected from the Area EPS. (IEEE 1547 Clause 4.5, par. 5)

Control Capability Requirements

The DER shall be capable of responding to external inputs as specified in the section.

Capability to disable Permit Service

The DER shall be capable of disabling the Permit Service setting and shall Cease to Energize the Area EPS and trip in no more than 2 seconds. (IEEE 1547 Clause 4.6.1)

Capability to limit active power

The DER shall be capable of limiting active power as a percentage of the nameplate active power rating. The DER shall limit its active power output to not greater than the active power limit set point in no more than 30 seconds or in the time it takes for the primary energy source to reduce its active power output to achieve the requirements of the active power limit set point, whichever is greater. In cases where the DER is supplying loads in the Local EPS, the active power limit set point may be implemented as a maximum active power export to the Area EPS. Under mutual agreement between the Company and the DER Operator, the DER may be required to reduce active power below the level needed to support Local EPS loads. (IEEE 1547 Clause 4.6.2)

Execution of mode or parameter changes

Transition between modes shall commence in no more than 30 seconds after the mode setting change is received at the local DER communication interface. Changes of control functional modes shall be executed such that the DER output is transitioned smoothly over a time period between 5 s and 300 s. (IEEE 1547 Clause 4.6.3, par. 1)

Ramping of DER output is not required for control parameter setting changes. For all control and protective function parameter settings, the time following the input to the local DER communication interface and preceding the point in time when the invoked action begins shall be no greater than 30 s. (IEEE 1547 Clause 4.6.3, par. 2)

Inadvertent energization of Company Distribution System

The DER shall not energize the Area EPS when the Area EPS is de-energized. (IEEE 1547 Clause 4.9)

Enter Service Requirements

The Customer's DER Facility shall only Enter Service and begin operation with an energized Distribution System when the Permit Service setting is "Enabled" and applicable voltages and frequencies are within the ranges in Table 6-1. See IEEE 1547 4.10 for further information.

Table 6-1: Enter Service Criteria for All DER Classes[3]

Enter service criteria		Default settings	Range of allowable settings
Permit service		Enabled	Enabled/Disabled
Applicable voltage within range	Minimum value	≥ 0.917 p.u.	0.88 p.u. to 0.95 p.u.
	Maximum value	≤ 1.05 p.u.	1.05 p.u. to 1.06 p.u.
Frequency within range	Minimum value	≥ 59.5 Hz	59.0 Hz to 59.9 Hz
	Maximum value	≤ 60.1 Hz	60.1 Hz to 61.0 Hz

Unless specified otherwise by the Company, the DER's *minimum intentional delay* (adjustable from 0-600 seconds) setting shall be set at 300 seconds (default).

DER shall increase output, or exchange, of active power during the *Enter Service Period* at an average rate-of-change specified in IEEE 1547. Unless specified otherwise by the Company, the DER's Enter Service period (adjustable from 0-1000 seconds) setting shall be set at 300 seconds (default).

Synchronization

The DER shall parallel with the Area EPS without causing step changes in the RMS voltage at the PCC exceeding 3% of nominal when the PCC is at medium voltage, or exceeding 5% of nominal when the PCC is at low voltage. (IEEE 1547 Clause 4.6.3, par. 2)

Unless specified otherwise by the Company, DER that produce fundamental voltage before connecting to the Area EPS shall not be synchronized outside of the tolerances specified in Table 6-2.

Table 6- 2: Synchronization Parameter Limits [4]

Aggregate rating of DER units (kVA)	Frequency difference (Δf,Hz)	Voltage difference (ΔV, %)	Phase angle difference ($\Delta\Phi$, °)
0-500	0.3	10	20
> 500-1500	0.2	5	15
> 1500	0.1	3	10

Paralleling Device

Where used for isolation of a DER unit that continues to produce voltage after isolation from the Area EPS, the DER paralleling-device shall be capable of withstanding 220% of the DER rated voltage across the paralleling device for an indefinite duration. (IEEE 1547 Clause 4.11.3)

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[1] IEEE-1547-2018 Table 4, page 33
[1] IEEE-1547-2018 Table 5, page 35

Exemptions for Emergency Systems and Standby DER

For DER systems designated as emergency, legally required, or critical power systems supplying hospitals, fire stations or other emergency facilities, IEEE 1547 Clause 4.13.1 provides several exemptions to the voltage/frequency ride-through, interoperability and communication, and intentional islanding requirements and may separate from the Area EPS system without limitations.

For DER systems designated as Standby and only operated in parallel with the Distribution System for testing purposes (no more than 30 times per year) or during load transfers for less than 300 seconds, IEEE 1547 Clause 4.13.2 provides several exemptions to the voltage/frequency ride-through, interoperability and communication, and intentional islanding requirements and may separate from the Area EPS without limitations.

Power Quality

IEEE 1547 Clause 7 provides requirements that limit the impact DER may have on the power quality of the Area EPS. Unless specified otherwise by the Company, all DER shall meet the requirements for:

- Limitation of DC injection
- Limitation of DER induced voltage fluctuations
- Limitation on current distortion
- Limitation of overvoltage contribution

Rapid voltage changes (RVC)

When the PCC is at medium voltage, the DER shall not cause step or ramp changes in RMS voltage at the PCC exceeding 3% of nominal and exceeding 3% per second averaged over a period of one second. When the PCC is at low voltage, the DER shall not cause step or ramp changes in RMS voltage at the PCC exceeding 5% of nominal and exceeding 5% per second averaged over a period of one second. The Company may grant exceptions to these limits after considering other sources of RVC within the Area EPS.

Islanding

Unintentional Islanding

For an Unintentional Island in which the DER energizes a portion of the Area EPS through the PCC, the DER shall detect the island, Cease to Energize the Area EPS, and trip within 2 seconds of the formation of an island. False detection of an Unintentional Island that does not actually exist shall not justify noncompliance with ride-through requirements as specified in Clause 6. (IEEE 1547 Clause 8.1)

Intentional Local EPS Islanding

IEEE 1547 Clause 8.2 specifies the requirements for the formation and operation of Intentional Local EPS Islands. An Intentional Local EPS Island is intentionally planned, has one or more DER serving all or a portion of the Local EPS, and has the ability to disconnect and isolate the Local EPS Island form the remainder of the Local EPS or the Area EPS. A Customer's DER Facility planned to provide an Intentional Local EPS Island shall meet the IEEE 1547 Islanding requirements.

Intentional Area EPS Islanding

IEEE 1547 Clause 8.2 specified the requirements for the formation and operation of Intentional Area EPS Islands. An Intentional Area EPS Island is any intentionally planned Island that includes any portion of the Area EPS.

Unless approved otherwise, a Customer DER Facility shall not be designed to participate in or form an Area EPS Island. Any Island that includes Customer DER Facility and the Area EPS shall be considered Unintentional Islands and the DER shall Cease to Energize and Trip within 2 seconds according to Section 6.1.3.1 of this Document.

If the Company approves the formation of an Intentional Island involving a portion of the Area EPS and the Customer's DER Facility, the technical and operational requirements will be included in the DER Interconnection Agreement.

DER on Secondary Networks

IEEE 1547 Clause 9 specifies the requirements for DER Interconnection on Company Secondary Networks. Unless approved otherwise by the Company, a Customer's DER Facility interconnected with Company Secondary Network Distribution Systems shall be designed to ensure that there is no-export power flow at the POC and meet all requirements of IEEE 1547.

Reactive Power Capability and Voltage/Power Control Requirements

Normal Operating Performance Category Designations

IEEE 1547 Clause 5 identifies two sets of voltage regulation performance and reactive power capability requirements (Category A and Category B) for response to voltage variations within the normal operating range of 0.88 to 1.1 times nominal voltage.

Category A covers minimum capabilities needed for Area EPS voltage regulation and are reasonably attainable by all state-of-the-art DER technologies. This level of performance is deemed adequate for applications where the DER penetration in the Distribution System is lower, and where the DER power output is not subject to frequent large variations. (IEEE 1547 Appendix B.3.2.2)

Category B covers all requirements within Category A and specifies supplemental capabilities needed to adequately integrate the DER in the Area EPS where the DER penetration is higher or where the DER power output is subject to frequent large variations. (IEEE 1547 Appendix B.3.2.3)

Voltage and Reactive/Active Power Control Functions

Unless specified otherwise by the Company, **all DER with Inverter based interfaces are designated Category B DER** and provide the voltage and reactive/active power control functions listed in Table 6-3.

Unless specified otherwise by the Company, all DER without Inverter based interfaces (synchronous or induction generators) are designated Category A DER and shall provide the voltage and reactive/active power control functions listed in Table 6-3.

Table 6-3: Required Voltage and Reactive /Active Power Control Functions[5]

DER Category	Category A	Category B
Voltage regulation by reactive power control		
Constant power factor mode	Mandatory	Mandatory
Voltage-reactive power (volt-var) mode	Mandatory	Mandatory
Active power-reactive power (watt-var) mode	Not required	Mandatory [a]
Constant reactive power	Mandatory [a]	Mandatory [a]
Voltage and active power control		
Voltage-active power (volt-watt) mode	Not required	Mandatory [a]

[a] Control function is not required until equipment Certified IEEE 1547-2018 compliant under UL 1741-AB are commercially available.

Reactive Power Capability of the DER

Categories A and B DER have different reactive power capability requirements, both require a percentage of the apparent power nameplate rating to be available for reactive power. Category B is capable of injecting or absorbing 44% of apparent power rating when active power output exceeds 20% of DER nameplate rating. Category A is capable of reactive power injection of 44% and absorption of 25% of nameplate apparent power when active power output exceeds 20% of DER nameplate rating. Both categories' reactive power requirements contain a gradient between 5% and 20% active power output levels. See IEEE 1547 Clause 5.2 for additional details.

Voltage and Reactive Power Control

IEEE 1547 Clause 5.3 describes the voltage and reactive power control functions required for all DER. Unless specified otherwise by the Company, **constant power factor mode with a unity power factor setting shall be the default mode of the installed DER**.

The Company may elect, at some future time, to implement other DER voltage and reactive power control functions or settings either manually or electronically. Implementation of additional control functions will be proceeded with modification to the DER Interconnection Agreement and/or the Customer's participation in programs, tariffs or riders requiring the functions.

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[5]IEEE-1547-2018 Table 6, page 37

Voltage and Active Power Control

IEEE 1547 Clause 5.4 describes the voltage and active power control function required for all DER. Category B DER provide a voltage regulation capability by changes of active power. Unless specified otherwise by the Company, **this function shall be disabled (default).**

The Company may elect, at some future time, to implement the DER voltage and active power control function either manually or electronically. Implementation of this control function will be proceeded with modification to the DER Interconnection Agreement and/or the Customer's participation in programs, tariffs or riders requiring the activation of the function.

Response to Distribution System Abnormal Conditions

Abnormal Operating Performance Category I, II, & III Designations

IEEE 1547 Clause 6.1 identifies three sets of DER performance characteristics and capabilities (Category I, II, and III) for disturbance ride-through performance and required response to abnormal Distribution System conditions.

Category I is based on minimal Bulk Power System (BPS) reliability needs and is reasonably attainable by all DER technologies that are in common usage today. Category I disturbance ride-through performance, however, is not consistent with the reliability standards imposed on Bulk Power System generation resources. (IEEE 1547 B.3.3.1)

Category II performance covers all BPS reliability needs and coordinates with the existing BPS reliability standard, NERC PRC-024-2, developed to avoid adverse tripping of bulk system generators during system disturbances. Additional voltage ride-through capability is specified for DERs, beyond mandatory voltage ride-through defined by NERC PRC-024-2, to account for the potential for fault-induced delayed

voltage recovery on the distribution system, due to distribution load characteristics. (IEEE 1547 Appendix B.3.3.2)

Category III provides the highest disturbance ride-through capabilities, intended to address integration issues such as power quality and system overloads caused by DER tripping in Distribution Systems that have high levels of DER penetration. This category also provides increased bulk power system security by further reducing the potential loss of DER during bulk system events. These requirements are based on the California Rule 21 Smart Inverter requirements. (IEEE 1547 Appendix B.3.3.3)

Abnormal Performance Assignment by DER Type and Function

IEEE 1547 Clause 6 specifies the required response to abnormal conditions for all DER. Unless specified otherwise by the Company, all DER interconnected with the Company EPS shall meet the disturbance ride-through performance based on their abnormal performance category assignment in Table 6-4.

All performance requirements shall be met at the RPA described in Section 6.1.1 of this Document.

Table 6-4: Abnormal Performance Category Assignment by DER Type and Function

DER Type	DER Function				
	Retail Self Generation	Combined Heat & Power	Waste Fuel Recovery	Renewable Energy	Critical Backup[a]
Inverter sourced by Solar PV	Category III	N/A	N/A	Category III	N/A
Inverter sourced by Wind	Category III	N/A	N/A	Category III	N/A
Inverter Sourced by Energy Storage	Category III	N/A	N/A	N/A	Category II
Inverter Sourced by Fuel Cells	Category III	Category III	Category III	Category III	Category II
Other Inverter Applications	Category III	Category III	Category III	Category III	Category II
Engine or Turbine driven Synchronous Generator	Category I	Category I	Category I	Category I	Category I
Other Synchronous Generators	Category I	Category I	Category I	Category I	Category I
Other Induction Generators	Category II	Category II	Category II	Category II	Category II

[a] Only applies to critical backup generation interconnected to for the purposes of periodic testing.

Company EPS Faults and Open Phase Conditions

For short-circuit faults on the Area EPS circuit section to which the DER is connected, the DER shall Cease to Energize and Trip unless specified otherwise by the Company. This requirement shall not be applicable to faults that cannot be detected by the Area EPS protection systems. (IEEE 1547 Clause 6.2.1)

The DER shall detect and Cease to Energize and Trip all phases to which the DER is connected for any open phase condition occurring at the RPA. The DER shall Cease to Energize and Trip within 2.0 seconds of the open phase condition. (IEEE 1547 Clause 6.2.2)

Area EPS Reclosing Coordination

Appropriate means shall be implemented to help ensure that Area EPS automatic reclosing onto a circuit remaining energized by the DER does not expose the Area EPS to unacceptable stresses or disturbances due to differences in instantaneous voltage, phase angle, or frequency between the separated systems at the instant of the reclosure (e.g., out-of-phase reclosing). Operation in Momentary Cessation operating mode meets this Cease to Energize requirement. Restore Output behavior shall be coordinated with Area EPS reclosing timing.

Mandatory Voltage Tripping Requirements

IEEE 1547 Clause 6.4.1 specifies the voltage must-trip requirements for all DER. DER shall Cease to Energize and Trip for applicable voltages less than an undervoltage threshold setting or greater than an overvoltage threshold setting. The under and overvoltage thresholds and clearing times for Category I, II, and III DER shall be adjustable over the range of settings specified in Table 6-5, Table 6-6 and Table 6-7 respectively. **Unless specified otherwise by the Company, the default values shall be used.** The Company may, at some future time, require changes to these set point settings.

Table 6-5: Category I DER Abnormal Voltage – Shall Trip Set Points[6]

Shall Trip – Category I				
Shall Trip Function	Default Settings		Ranges of Allowable Settings	
	Voltage (p.u. nominal)	Clearing Time (s)	Voltage (p.u. nominal)	Clearing Time (s)
OV2	1.20	0.16	fixed at 1.20	fixed at 0.16
OV1	1.10	2.00	1.10 - 1.20	1.00 – 13.00
UV1	0.70	2.00	0.00 – 0.88	2.00 – 21.00
UV2	0.45	0.16	0.00 – 0.50	0.16 – 2.00

Table 6-6: Category II DER Abnormal Voltage – Shall Trip Set Points[7]

Shall Trip – Category II				
Shall Trip Function	Default Settings		Ranges of Allowable Settings	
	Voltage (p.u. nominal)	Clearing Time (s)	Voltage (p.u. nominal)	Clearing Time (s)
OV2	1.20	0.16	fixed at 1.20	fixed at 0.16
OV1	1.10	2.00	1.10 - 1.20	1.00 – 13.00
UV1	0.70	10.00	0.00 – 0.88	2.00 – 21.00
UV2	0.45	0.16	0.00 – 0.50	0.16 – 2.00

Table 6-7: Category III DER Abnormal Voltage – Shall Trip Set Points[8]

Shall Trip – Category III		
	Default Settings	Ranges of Allowable Settings

Shall Trip Function	Voltage (p.u. nominal)	Clearing Time (s)	Voltage (p.u. nominal)	Clearing Time (s)
OV2	1.20	0.16	fixed at 1.20	fixed at 0.16
OV1	1.10	13.00	1.10 - 1.20	1.0 – 13.0
UV1	0.88	21.00	0.00 – 0.88	21.0 – 50.00
UV2	0.50	2.00	0.00 – 0.50	2.0 – 21.0

[6] IEEE-1547-2018 Table 11, page 45

[7] IEEE-1547-2018 Table 12, page 45

[8] IEEE-1547-2018 Table 13, page 46

Voltage Disturbance Ride-Through Requirements

IEEE 1547 Clause 6.4.2 specifies the voltage disturbance Ride-Through capabilities for Category I, II, & III DER. All DER shall meet the voltage Ride-Through capabilities listed in Table 6-8, Table 6-9, or Table 6-10 for their respective DER Category based on the DER type and function. The voltage disturbance Ride-Through requirements specified do not apply when frequency is outside of the frequency Ride-Through ranges. See IEEE 1547-Clause 6.4.2 for additional voltage Ride-Through technical, implementation and operational performance requirements.

Table 6-8: Category I DER Voltage Ride-through Requirements[9]

Voltage Range (p.u.)	Operating Mode/Response	Minimum Ride-Through Time (s)	Maximum Response Time (s)
V > 1.20	Cease to Energize	N/A	0.16
1.175 < V <= 1.20	Permissive Operation	0.20	N/A
1.15 < V <= 1.175	Permissive Operation	0.50	N/A
1.10 < V <= 1.15	Permissive Operation	1.00	N/A
0.88< V <= 1.10	Continuous Operation	Infinite	N/A
0.70 < V < 0.88	Mandatory Operation	Linear slope of 4 s/1p.u. voltage Starting at 0.7 s @ 0.7 p.u.: T_{VRT} = 0.7 s + $\frac{4s}{1\ p.u.}$ (*V*- 0.7 p.u.)	N/A
0.50 <= V < 0.70	Permissive Operation	0.16	N/A
V < 0.50	Cease to Energize	N/A	0.16

Table 6-9: Category II DER Voltage Ride-through Requirements[10]

Voltage Range (p.u.)	Operating Mode/Response	Minimum Ride-Through Time (s)	Maximum Response Time (s)
V > 1.20	Cease to Energize	N/A	0.16
1.175 < V <= 1.20	Permissive Operation	0.20	N/A
1.15 < V <= 1.175	Permissive Operation	0.50	N/A
1.10 < V <= 1.15	Permissive Operation	1.00	N/A
0.88< V <= 1.10	Continuous Operation	Infinite	N/A
0.65 <= V < 0.88	Mandatory Operation	Linear slope of 8.7 s/1p.u. voltage Starting at 3 s @ 0.65 p.u.: T_{VRT} = 3s + $\frac{8.7s}{1\ p.u.}$ (*V*- 0.65 p.u.)	N/A

0.45 <= V < 0.65	Permissive Operation	0.32	N/A
0.30 <= V < 0.45	Permissive Operation	0.16	N/A
V < 0.30	Cease to Energize	N/A	0.16

[9] IEEE-1547-2018 Table 14, page 47
[10] IEEE-1547-2018 Table 15, page 47

Table 6-10: Category III DER Voltage Ride-through Requirements[11]

Voltage Range (p.u.)	Operating Mode/Response	Minimum Ride-Through Time (s)	Maximum Response Time (s)
V > 1.20	Cease to Energize	N/A	0.16
1.10 < V <= 1.20	Momentary Cessation	12	0.083
0.88< V <= 1.10	Continuous Operation	Infinite	N/A
0.70 < V < 0.88	Mandatory Operation	20	N/A
0.50 <= V < 0.70	Mandatory Operation	10	N/A
V < 0.50	Momentary Cessation	1	0.083

Frequency Must-Trip Requirements

IEEE 1547 Clause 6.5.1 specifies the frequency must-trip requirements for all DER. DER shall Cease to Energize and Trip for applicable frequencies less than an under-frequency threshold setting or greater than an over-frequency threshold setting. The under and over frequency thresholds and clearing times for all DER shall be adjustable over a range of settings specified in Table 6-11. **Unless specified otherwise by the Company, the default values shall be used.** The Company may, at some future time, require changes to these set point settings.

Table 6-11: DER Abnormal Frequency – Shall Trip Set Points[12]

Shall Trip Function	Default Settings		Ranges of Allowable Settings	
	Frequency (Hz)	Clearing Time (s)	Frequency (Hz)	Clearing Time (s)
OF2	62.0	0.16	61.8 – 66.0	0.16 – 1000.0
OF1	61.2	300.00	61.0 – 66.0	180.0 – 1000.0
UF1	58.5	300.00	50.0 – 59.0	180.0 – 1000.0
UF2	56.5	0.16	50.0 – 57.0	0.16 – 1000.0

Frequency Disturbance Ride-Through Requirements

IEEE 1547 Clause 6.5.2 specifies the frequency disturbance Ride-Through capabilities for Category I, II, & III DER. All DER shall meet the specified frequency ride-through capabilities listed in Table 6-12. The frequency disturbance ride-through requirements specified do not apply when voltage is outside of the voltage ride-through ranges. See IEEE 1547-Clause 6.5.2 for additional frequency Ride-Through technical, implementation and operational performance requirements.

[11] IEEE-1547-2018 Table 16, page 48
[12] IEEE-1547-2018 Table 18, page 55

Table 6-12: DER Abnormal Frequency Ride-through Requirements[13]

Voltage Range (p.u.)	Operating Mode	Maximum Time (s) (design criteria)
F > 62.0	No ride-through requirements apply to this range	
61.2< F <= 61.8	Mandatory Operation	299
58.8 <= F <= 61.2	Continuous Operation	Infinite
57.0 <= F < 58.8	Mandatory Operation	299
F < 57.0	No ride-through requirements apply to this range	

Frequency -Droop Operation

IEEE 1547 Clause 6.5.2. specifies the frequency-droop (frequency-power) requirements for all DER. All DER shall provide frequency-droop operation for high-frequency conditions. Frequency-droop operation is mandatory for all Category II & III DER and optional for Category I DER.

During temporary frequency disturbances the DER shall adjust its active power output from the pre-disturbance as required by IEEE 1547 Clause 6.5.2.7.2. The frequency-droop parameters for all DER shall be adjustable over a range of settings specified in Table 6-13. **Unless specified otherwise by the Company, the default values shall be used.** The Company may, at some future time, require changes to these parameter settings.

Table 6-13: Frequency – Droop Operation[14]

Parameter	Default Settings	Ranges of Allowable Settings		
		Category I	Category II	Category III
dbOF, dbUF (Hz)	0.036	0.017 - 1.0	0.017 - 1.0	0.017 - 1.0
kOF, kUF	0.05	0.03 – 0.05	0.03 – 0.05	0.02 – 0.05
T response (small signal) (s)	5	1 - 10	1 - 10	0.2 - 10

Additional Protection and Control Considerations

The following are additional considerations for conditions not previously covered.

Rate of Change of Frequency (ROCOF) Protection

Company prohibits tripping due to rate of change of frequency (ROCOF). The no-trip requirement for ROCOF is inclusive of the inverter controls as well as breaker and relay equipment via a protection and control scheme.

DC Reverse Current Protection

[13] IEEE-1547-2018 Table 19, page 56

[14] IEEE-1547-2018 Table 24, page 60

Company prohibits tripping due to direct-current (DC) reverse-current. The no-trip requirement for DC reverse-current is inclusive of the inverter controls as well as breaker and relay equipment via a protection and control scheme

Phase-Lock Loop (PLL) Loss of Synchronism Protection

Company prohibits tripping due to Phase-Lock Loop (PLL) Loss of Synchronism. The no-trip requirement for PLL reverse-current is inclusive of the inverter controls as well as breaker and relay equipment via a protection and control scheme.

Interoperability and Information Exchange

Local DER Communication Interface

IEEE 1547 Clause 10.1 requires that all DER, except emergency and standby DER, provide a Local DER Communication Interface to support the information exchange requirements specified in this standard for all applicable functions that are supported in the DER.

The decision to use the Local DER Communication Interface or to deploy a communications network is determined by the Company. (IEEE 1547 Clause 10.1 par. 3). The Company does not require an active communications link with the DER be established at this time.

The Company may elect, at some future time, to implement a communications network and use the Local DER Communications Interface to implement the monitoring and certain control functions with Company Distribution System control systems. The implementation of additional monitoring and control functions will be proceeded with modification to the DER Interconnection Agreement and/or the Customer's participation in programs, tariffs or riders requiring the functions

DER Information Exchange

IEEE 1547 Clause 10 specifies the information and data exchange the Local DER Communications Interface is required to support. The information to be exchanged falls into four categories:

- Nameplate information
- Configuration Information
- Monitoring information
- Management information

See IEEE 1547 Clauses 10.2 through 10.6 for the detailed information exchange requirements.

Communications Protocol Requirements

IEEE 1547 Clause 10.7 specifies the communication protocol requirements and requires that the DER support at least one of the protocols listed in Table 6-14. The Local DER Communications Interface must be active when the DER is operations operational and have an information response time of less than or equal to 30 seconds.

Table 6-14: DER Communication Protocols[14]

Protocol	Transport	Physical layer
IEEE Std 2030.5 (SEP2)	TCP/IP	Ethernet
IEEE Std 1815 (DNP3)	TCP/IP	Ethernet
SunSpec Modbus	TCP/IP	Ethernet
	N/A	RS-485

Technology-Specific Requirements

This Section outlines technology-specific requirements for DER Facilities. Company requires that the Customers DER Facilities interconnecting with the Company Distribution System meet the technology-specific the requirements unless specified otherwise in the DER Interconnection Agreement.

DER Units with Inverter-Based Interfaces

Inverter Standards

Company requires that the "Inverters" of all DER Units with inverter-based interfaces be certified compliant with the Inverter standards/guidelines outlined in Table 7-1.

Table 7-1: Inverter Standards/ Guidelines

IEEE 1547-2018	Inverters shall be Smart Inverters certified compliant with IEEE 1547-2018 "IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces".
IEEE 1547.1	Inverters shall comply with the most current release of IEEE 1547.1 "IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems" (new release in 2020)
UL 1741	Inverters shall be certified safety compliant under UL 1741 "Standard for Inverters, Converters, Controllers and Interconnection System Equipment for use with Distributed Energy Resources"
UL 1741 SB	Inverters shall be certified compliant as Grid Support Utility Interactive Inverters under UL1741 SB

Inverters shall be certified to the latest version of UL 1741

Company recommends that Customer propose Inverters listed as compliant on the California Energy Commissioner's (CEC) list of eligible Inverters available at the following location:

www.energy.ca.gov/programs-and-topics/programs/solar-equipment-lists

Customer may propose Inverters that are not listed on the CEC list, but additional time will be required to verify certification and compliance with the outlined requirements.

[15] IEEE-1547-2018 Table 41, page 75

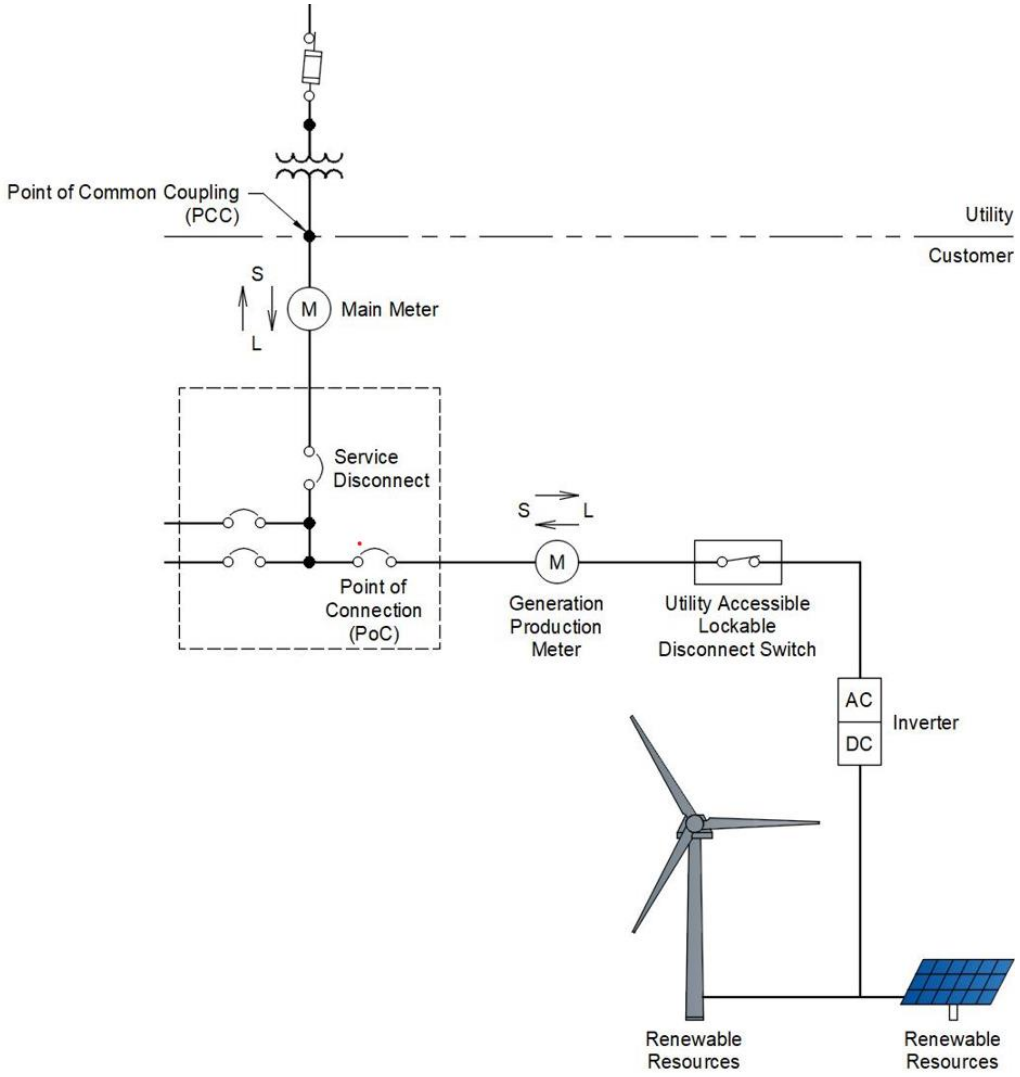
Inverter settings will be determined by the Company. The Company will have the ability to view, modify/control DER operations through the inverter functions/setpoints.

Inverter Based Generation One-Line Diagrams

The one-line diagrams presented in this section are illustrative of several typical inverter-based DG installations. The NEC may permit other configurations and may have additional wiring and equipment requirements. For the meters, S means Source and L means Load.

Figure 7-1 below, illustrates the typical one-line diagram for a Customer's DER Facility that is connected at a circuit breaker in the electric service/load panel. The NEC 120% rule[16] applies when the DER PoC is made on the opposite end of the load bus from the primary power source.

Figure 7- 1: Load Side DER with PoC in a Load Panel

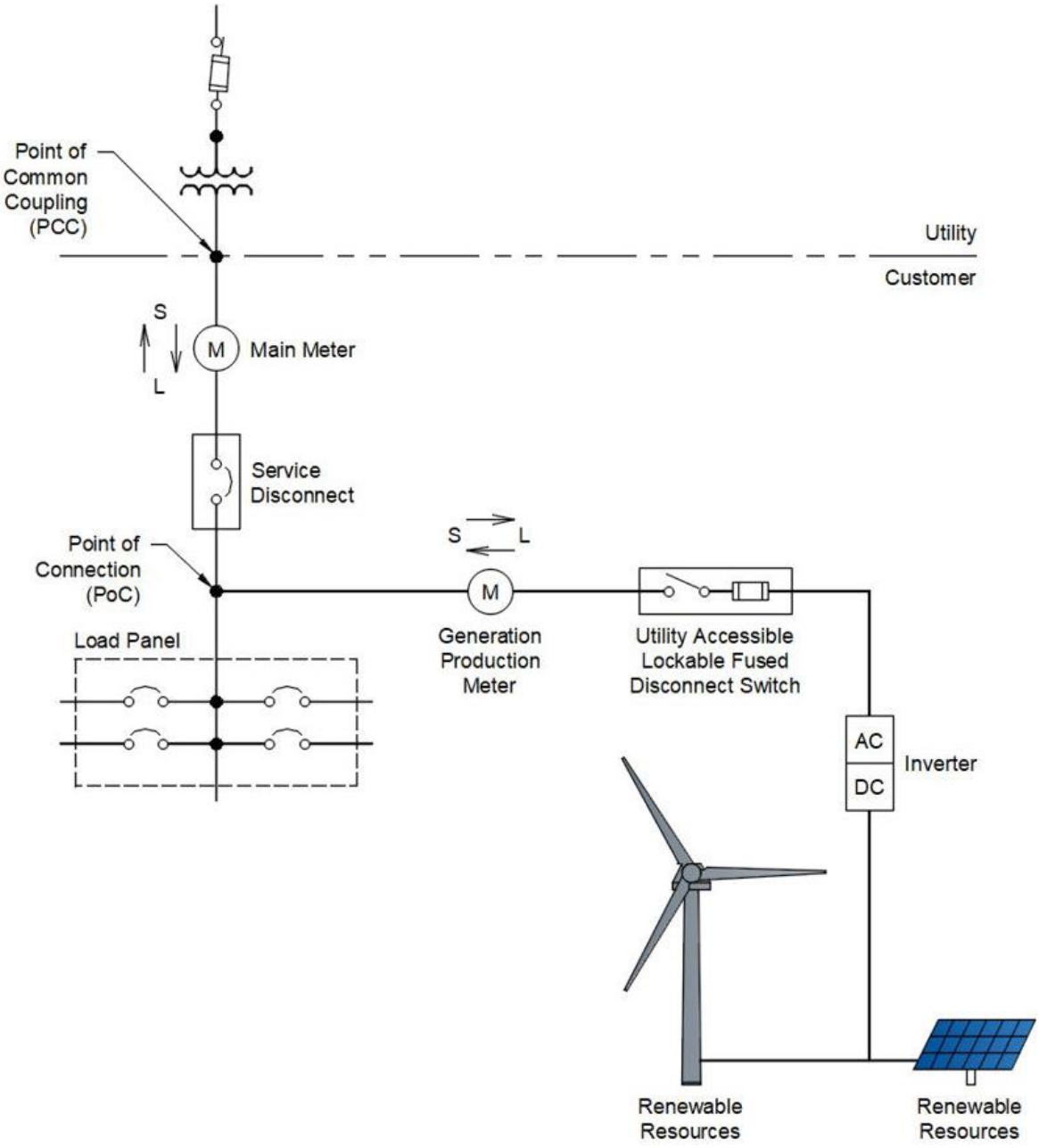


[16] NEC707.12(B)(3)(2)

Figure 7 2 below, illustrates the typical one-line diagram for a Customer's DER Facility that is connected on the load side of the Customer's service fuse/breaker disconnect, but ahead of a load panel. This

configuration requires that the conductors and load panel, on the load side of the DER POC, be sized to carry the sum of the service and DER protective device ratings[17].

Figure 7- 2: Load Side DER with PoC Ahead of a Load Panel



[17] NEC 705.12(B)(2) & (3)

Figure 7-3 below, illustrates the typical one-line diagram for a Customer's DER Facility that is connected after the Company service meter, but on the supply side of the Customer's service fuse/breaker

disconnect using a double lugged meter enclosure. In this configuration, an existing meter enclosure may have to be changed to a meter enclosure that accommodates double lug load side connection.

Figure 7- 3: Supply Side DER with PoC at a Double Lugged Meter Enclosure

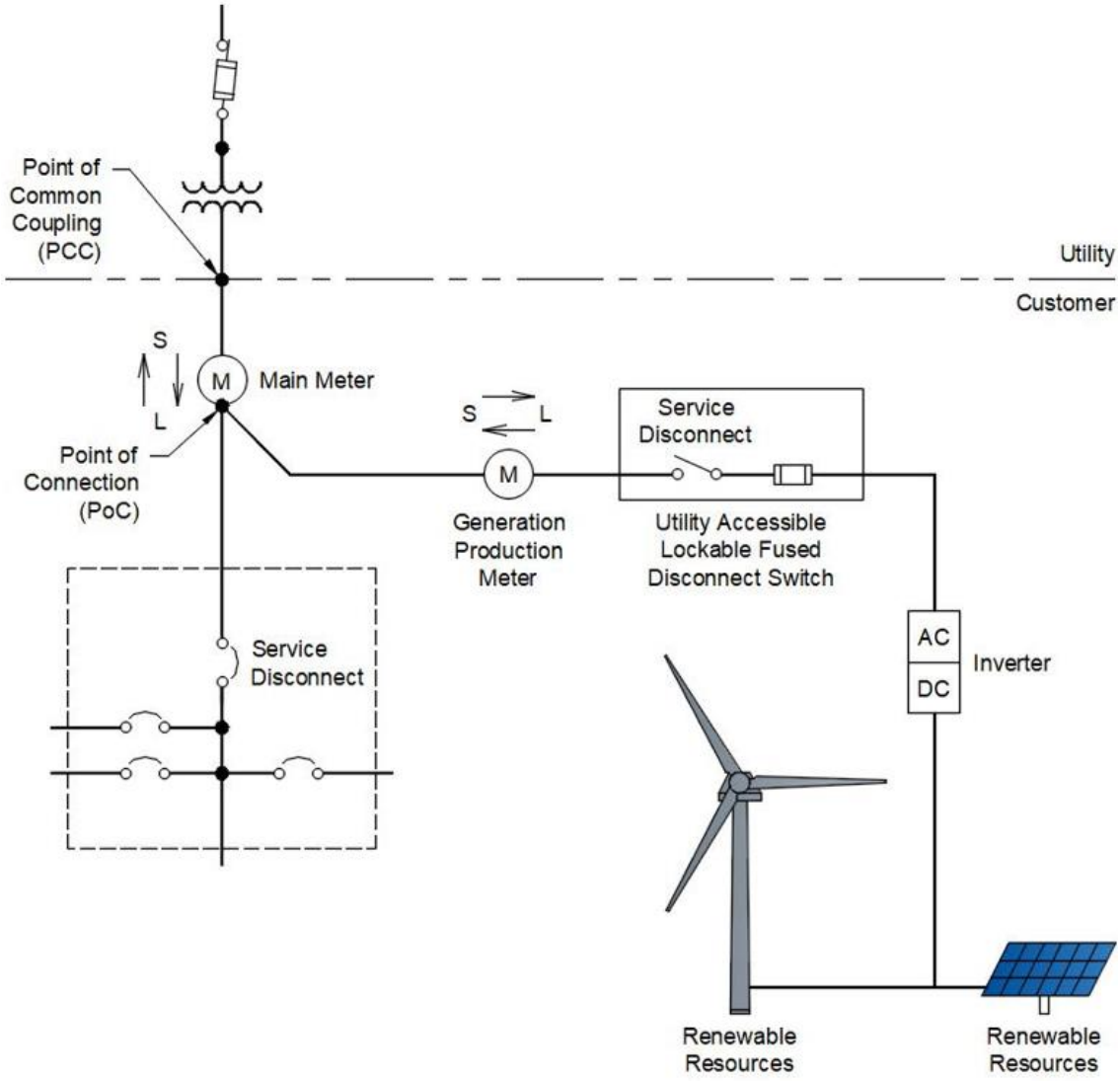
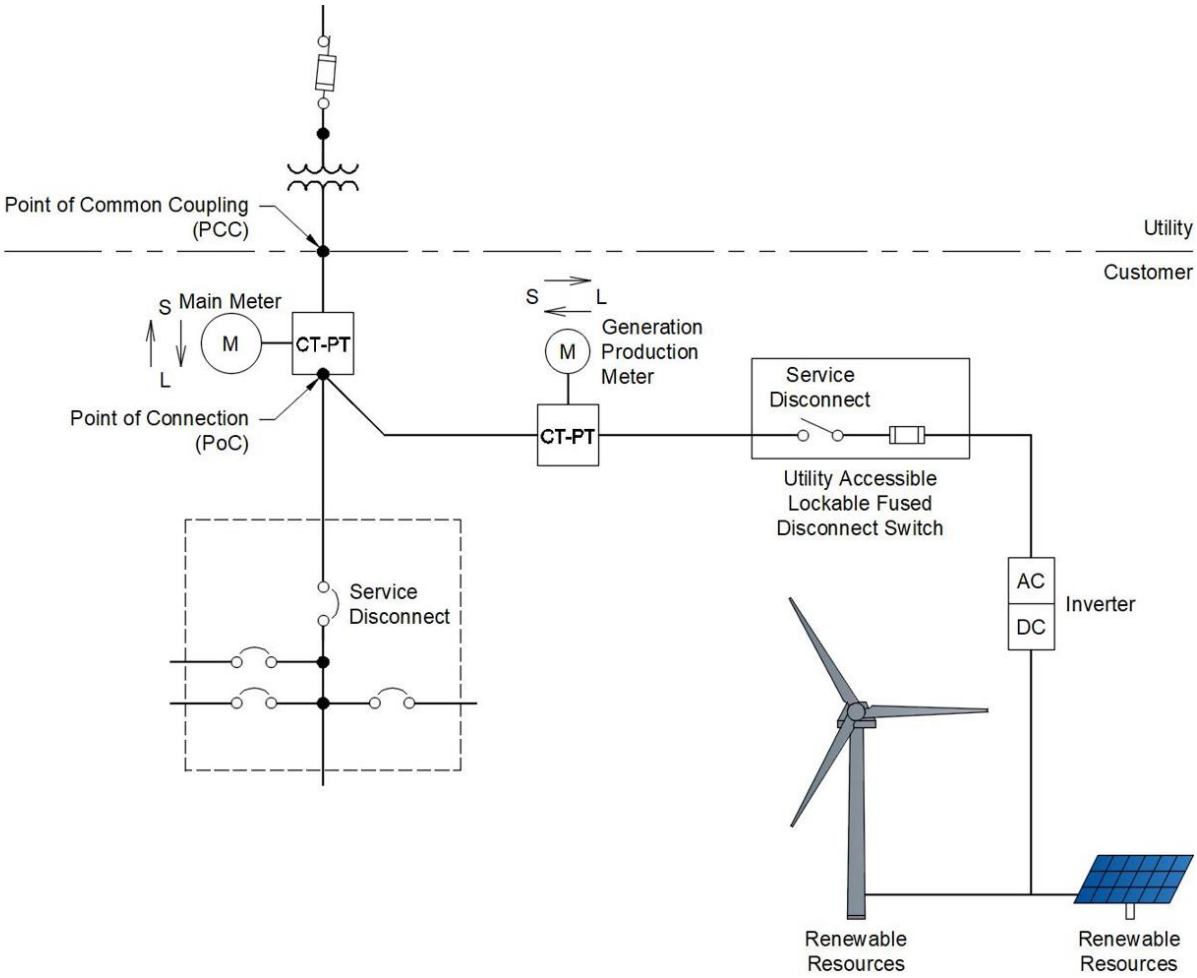


Figure 7-4 below, illustrates the typical one-line diagram for a larger Customer's DER Facility with an output rating greater than 400 amps which therefore requires CT generation metering. In this illustration the DER is connected in a junction box after the Company service meter, but on the supply side of the Customer's main service fuse/breaker disconnect. In this configuration the service meter enclosure must have the rating of the sum of the Customer's service disconnects, main and DER.

Figure 7- 4: Typical Inverter Based One-line Diagram with CT Metering



Battery Energy Storage Systems (BESS)

Electric energy storage is considered a generator under the DER Facility definition in this Document. Battery energy storage systems are typically one part of a Customer Renewable Energy generation project and consist of batteries, Inverter(s), and an associated control system. BESS connections will be reviewed as part of the Customer's DER Faculty Interconnection Application and will be required to meet the technical and operational requirements of this manual.

Under Net Metering, a BESS can be paired with a Net Meter eligible Renewable Energy DER Unit. However, a BESS- only DER Facility is not eligible for the Net Metering program, as the energy stored may not be from renewable sources. A BESS-only DER Facility is eligible for Interconnection under the Parallel Generation-Non-Export or Parallel Generation-Qualifying Facility program. A BESS-only DER Facility may be allowed to export energy to the Company's Distribution System when participating in a Company demand response or other grid services program and responding to a Company-issued dispatch instructions.

BESS Standards

Company requires that Inverters of all BESS with Inverter-based interfaces be Certified to Underwriters Laboratories (UL) Standard UL 1741-SA and California Rule 21.

Company recommends that Customer propose Inverters listed as compliant on the California Energy Commissioner's (CEC) list of eligible Inverters available at:

www.energy.ca.gov/programs-and-topics/programs/solar-equipment-lists

Company requires that the BESS be Certified compliant with the Battery and Energy Storage System Standards outlined in Table 7-2.

Table 7-2: Battery and Energy Storage System Standards

UL 1973	Batteries shall be Certified compliant with UL 1973 "Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail (LER) Applications".
UL 9540	Energy Storage Systems shall be Certified compliant with UL 9540 "Standard for Energy Storage Systems and Equipment".

Company recommends that Customer propose BESS components listed as compliant on the California Energy Commissioner's (CEC) list of eligible Battery and Energy Storage Systems available at:
www.energy.ca.gov/programs-and-topics/programs/solar-equipment-lists

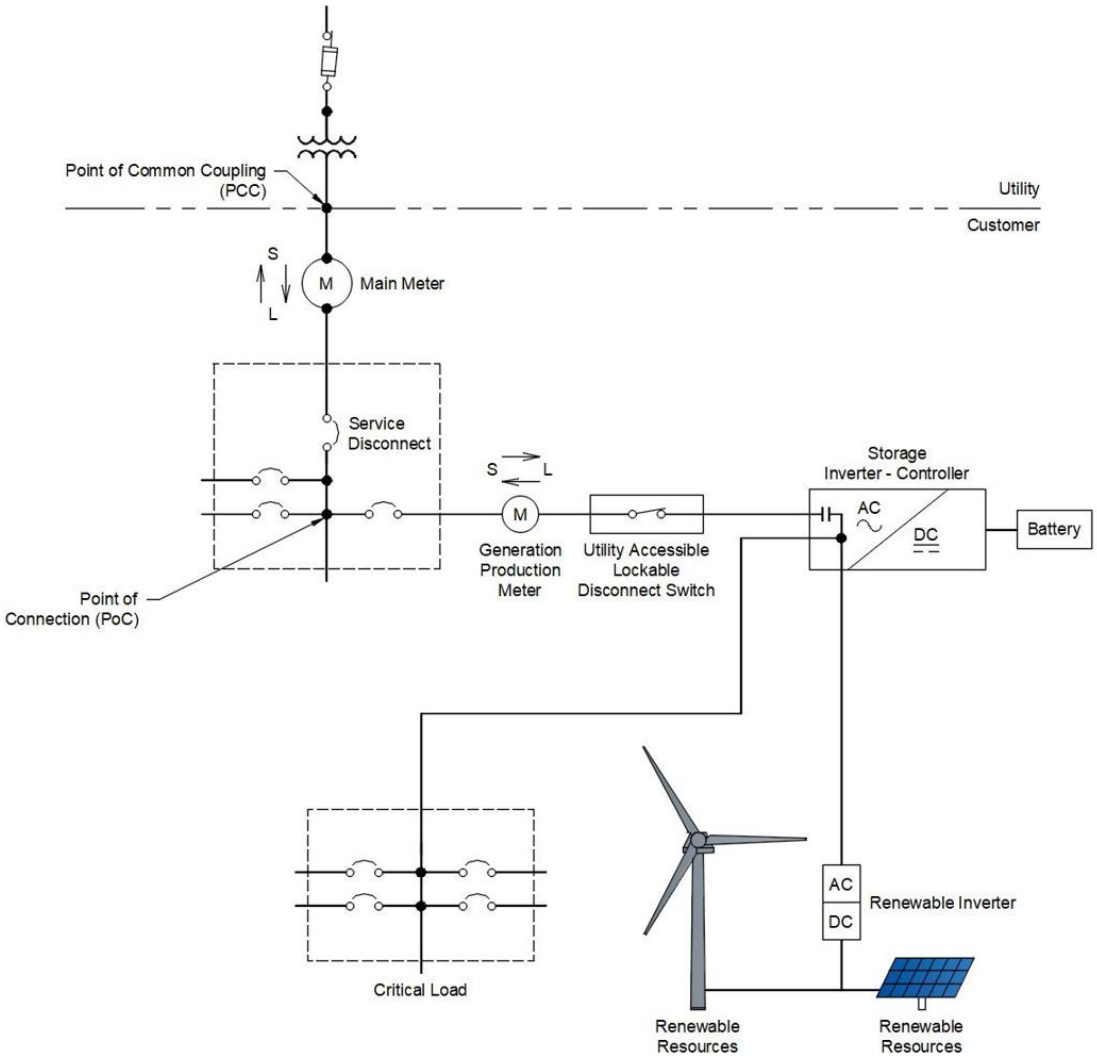
Customer may propose Inverter and BESS components that are not listed on the CEC list, but additional time will be required to verify certification and compliance with the specified requirements.

BESS One-Line Diagrams

The one-line diagrams presented in this section are illustrative of several typical DG plus BESS installations. The NEC may permit other configurations and may impose additional wiring and equipment requirements.

Figure 7-5 below, illustrates the typical one-line diagram for a Customer's DER Facility with renewable DG and storage connected at a circuit breaker in the electric service/load panel. The NEC 120% rule[18] applies when the DER PoC is made on the opposite end of the load bus from the primary power source.

Figure 7- 5: Load Side DG plus Storage DER with PoC in a Load Panel



[18] NEC707.12(B)(3)(2)

Below, illustrates the typical one-line diagram for a Customer's DER Facility with renewable DG and storage connected after the Company service meter, but on the supply side of the Customer's service fuse/breaker disconnect using a double lugged meter enclosure. In this configuration the meter enclosure must have the rating of the sum of the Customers service disconnects, main and DER.

Figure 7- 6: Supply Side DER with PoC at a Double Lugged Meter Enclosure

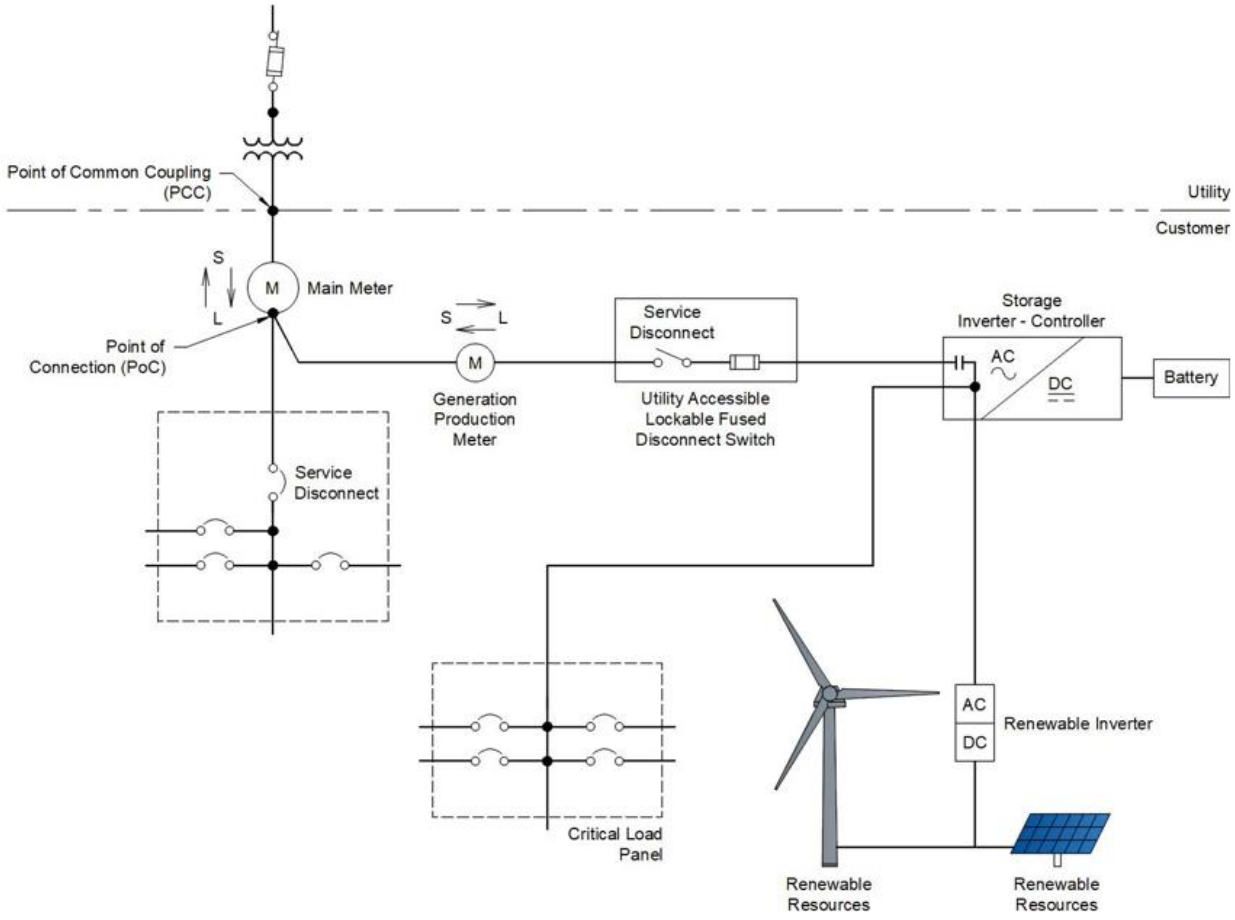


Figure 7- 7: Supply Side DER with PoC at a Double Lugged Meter Enclosure

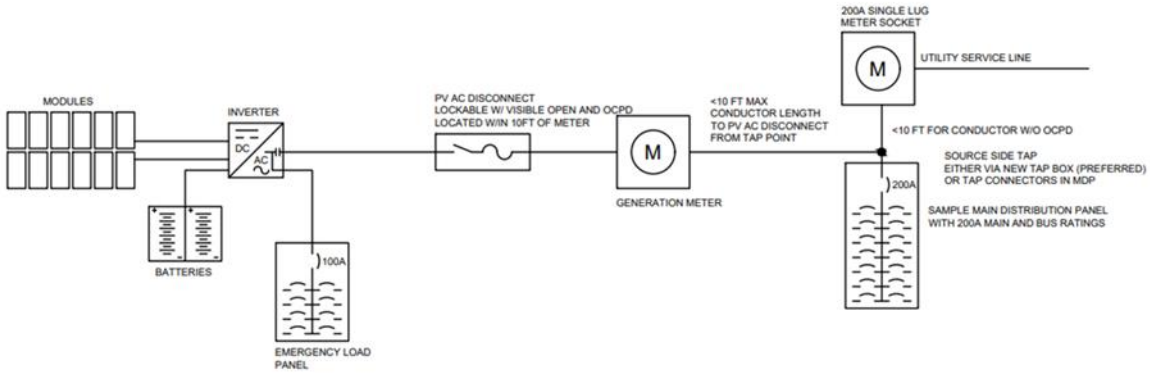


Figure 7-8 below illustrates the typical one-line diagram for a Customer's DER Facility with renewable DG and storage connected after the Company service meter, but before the main distribution panel. In this configuration the AC disconnect will be ahead of the automatic transfer switch. The AC disconnect will only be operated by the utility during service work.

Figure 7- 8: Typical PV install with Service Rated Transfer Switch and Battery

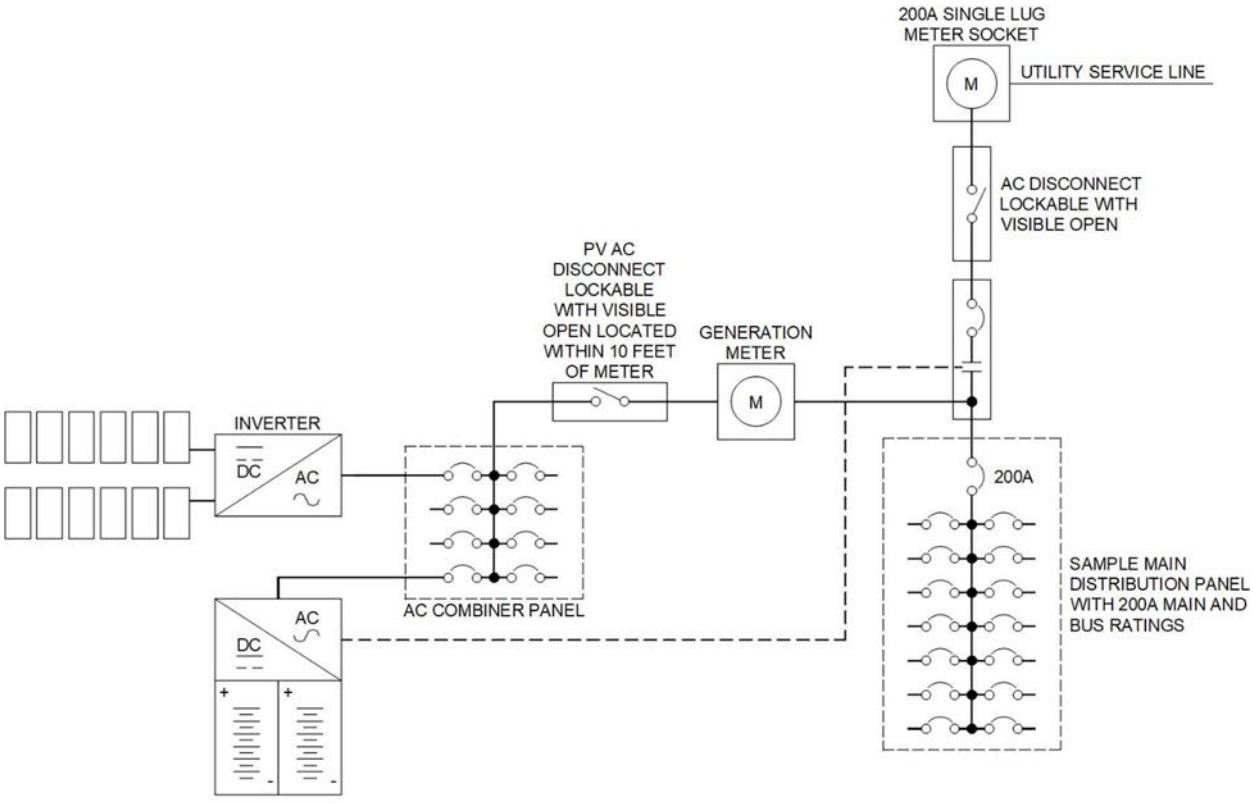
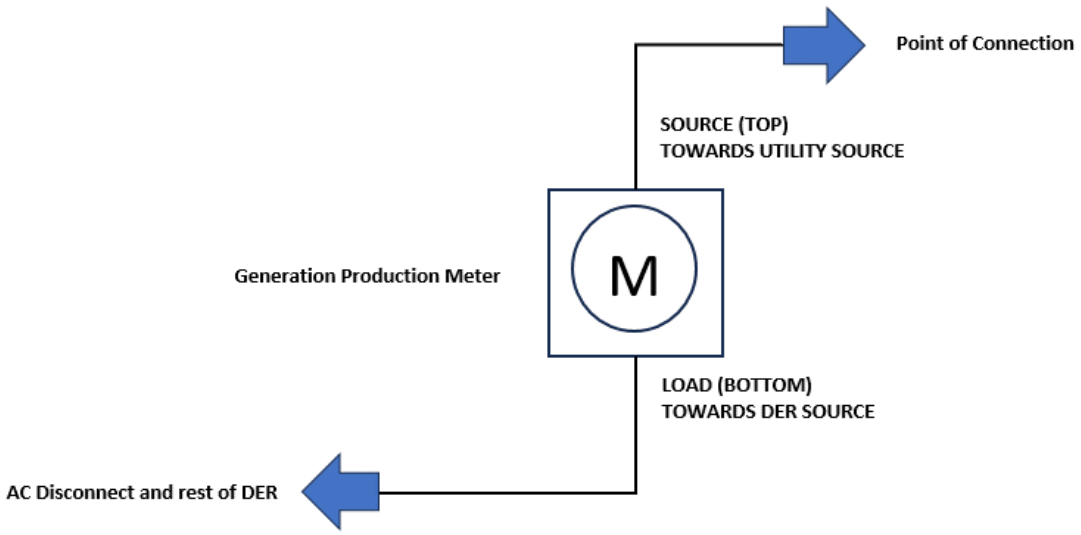


Figure 7-9 below, illustrates the typical wiring scheme for the generation production meter can. Evergy wiring should be on the top (source lugs -towards Evergy) and the Customer's wiring should be on the bottom (load lugs – towards DER).

Figure 7- 9: Generation Production Meter Wiring



The Production meter can will not be used as a raceway.

The Neutral lug can be isolated from the case ground by using a lever bypass meter can with the neutral to ground wire open.

Machine-Based Generation without Inverter-Based interface

For all three-phase synchronous or induction generators, the DER Facility circuit breakers shall be three-phase devices with electronic control.

Synchronous Generators

Customer shall be responsible for properly synchronizing its generation with the Company's Distribution System by means of either manual or automatic synchronous equipment. Automatic synchronizing is required for all synchronous generators that have a Short Circuit Contribution Ratio (SCCR) exceeding 0.05. Loss of synchronism protection is not required except as may be necessary to meet IEEE1547-4.2.5. Unless otherwise agreed upon by Customer and Company, synchronous generators shall automatically regulate power factor, not voltage, while operating in parallel with the Company's Distribution System.

Induction Generators

Induction Generators (except self-excited Induction generators) do not require a synchronizing function. Starting or rapid load fluctuations on induction generators can adversely impact Company's Distribution System voltage. Corrective step-switched capacitors or other techniques may be necessary and may cause undesirable ferro-resonance. When these counter measures (e.g. additional capacitors) are installed on Customers side of the Facility Interconnection, Company must review these measures. Additional equipment may be required as determined by Company.

Appendix A – On Line DER Interconnection Application Portal User Guide

Evergy Net Metering Online Application Entry User Guide

February 2020

Evergy Net Metering Online Application Entry

Training Guide

The purpose of this Document is to provide participating contractors with instructions on how to log in to the Evergy Net Metering Online Application Portal to submit Applications and supporting documentations. Program portal instructions and sample screenshots are used in this training documentation.

The four territories we serve are as follows: This will be identified on Customer bills

- Evergy Missouri Metro- Legacy KCPL-KMO
- Evergy Missouri West- Legacy KCPL-GMO
- Evergy Kansas Metro- Legacy KCPL- MO
- Evergy Kansas Central- Legacy Westar

All MO rebate/Application portal

http://evergymo-solarrebate.programprocessing.com/programapplication/?ft=A5D5284F205D4386ACFA0F9367925AA2

Evergy KS Metro- (KCPL KS)

http://evergyksmetro.programprocessing.com/programapplication/?ft=38C7799361C446D49D861B92451C18CA

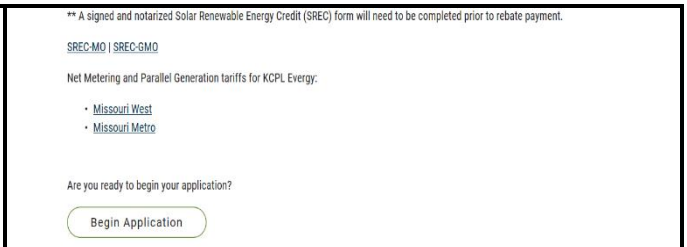
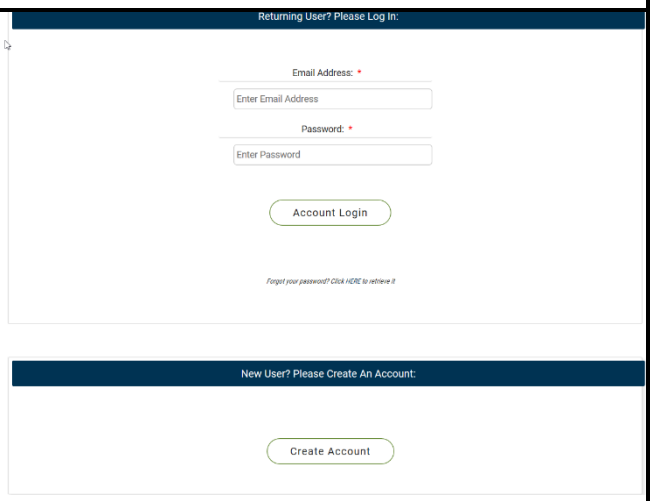
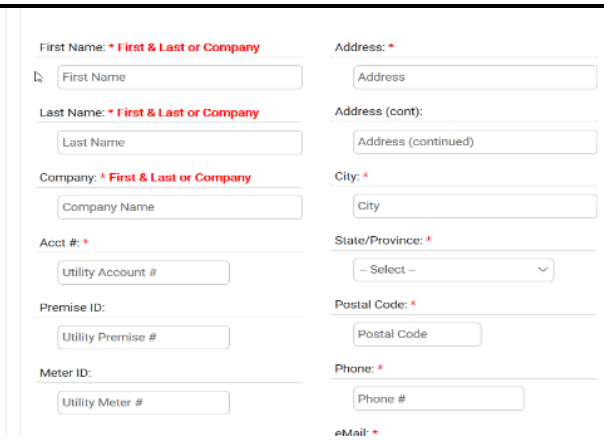
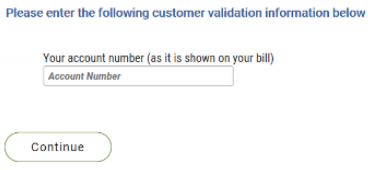
Evergy KS Central (Westar KS)

https://evergykscentral.programprocessing.com/programapplication/?ft=E0F9D250E93442B8B93DC14905686598

If you have any questions, please send by email to netmeteringapp@evergy.com

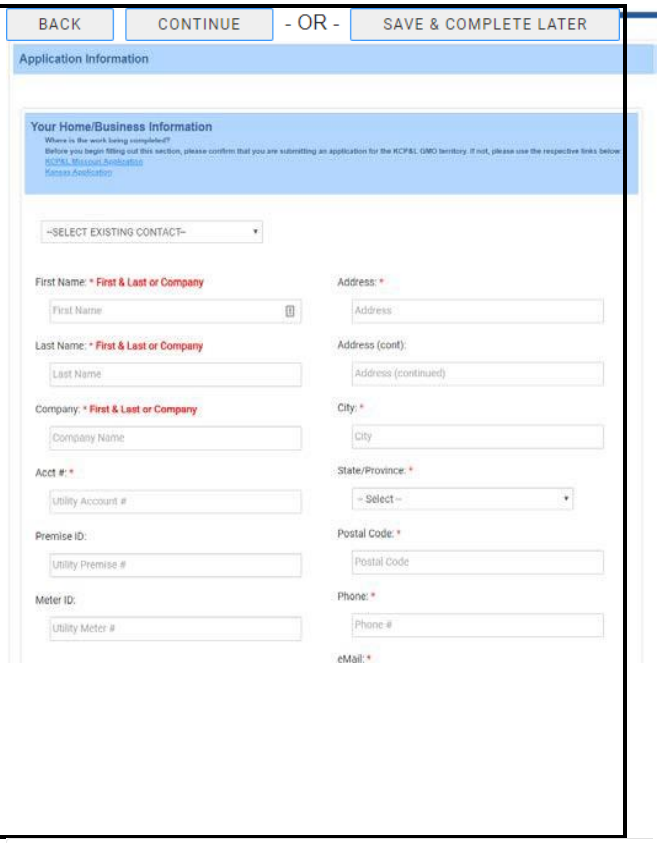
Contents

Creating an Account

1) To begin the process of applying for Net Metering, log into the appropriate link listed above.	
2) **RETURNING Users** must enter their **Email** address and **Password**, 3) **NEW Users** must create a 'new' account by selecting the **Create Account** button	
4) **Evergy Metro** or **Evergy Central** Complete Customer information **NOTE**: All fields marked with a **red asterisk *** here and on the Application Form are **REQUIRED FIELDS** in VisionDSM.	
5) **Evergy Missouri** Enter the account number and select a meter	

Completing the Application

1) The **APPLICATION** form is now displayed as shown. Please complete all applicable and required sections with available Customer and project information.

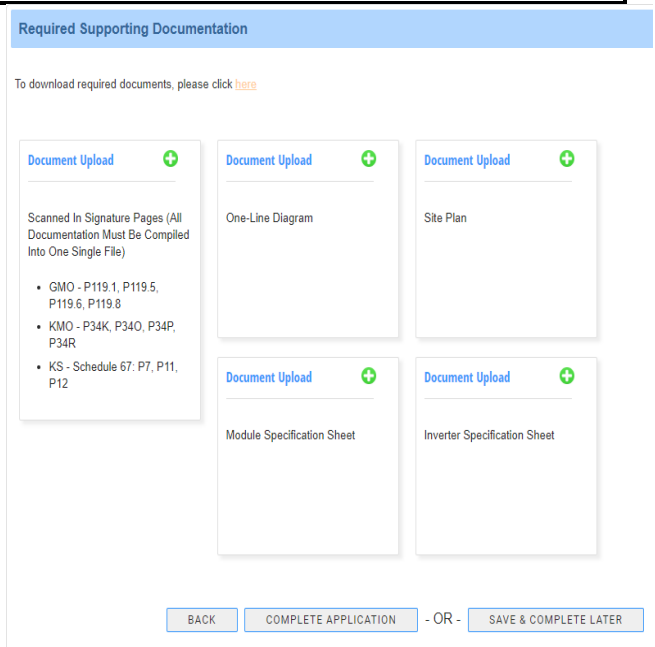


2) Click **Continue** as each page of the application is completed. **Choosing Save & Complete** later will allow to return to the application from the **MY SUBMITTED APPLICATIONS** menu.

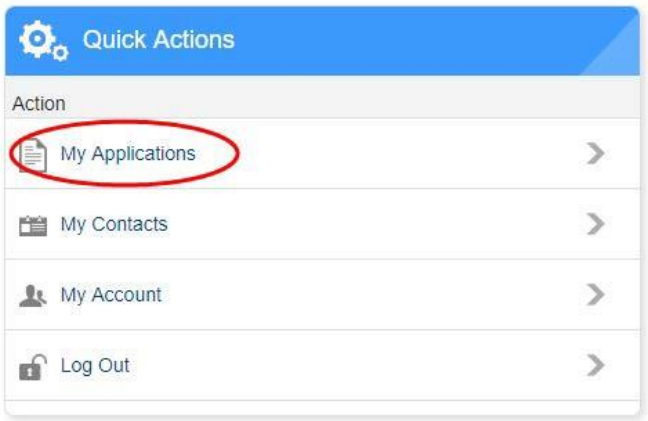
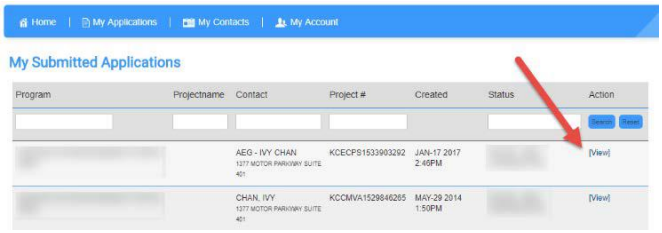
3) After completing Solar Module and Inverter information, upload supporting documentation. Each document requested will have to be uploaded individually.

4) Click on anywhere within the **Document Upload** box to begin the document upload process.

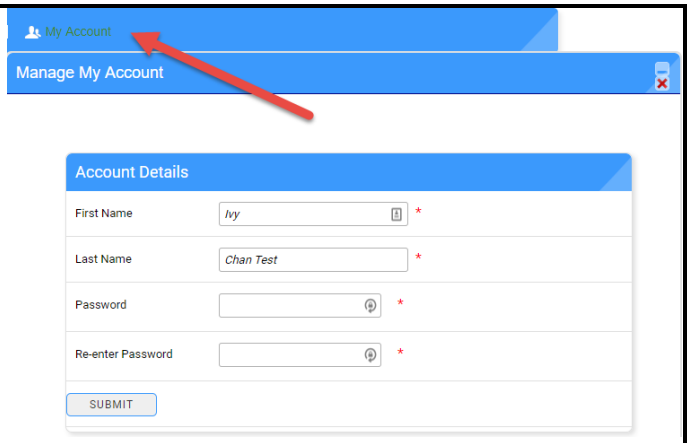
5) After an application has been submitted, users will be receiving emails throughout the application review process from donotreply@programprocessing.com.



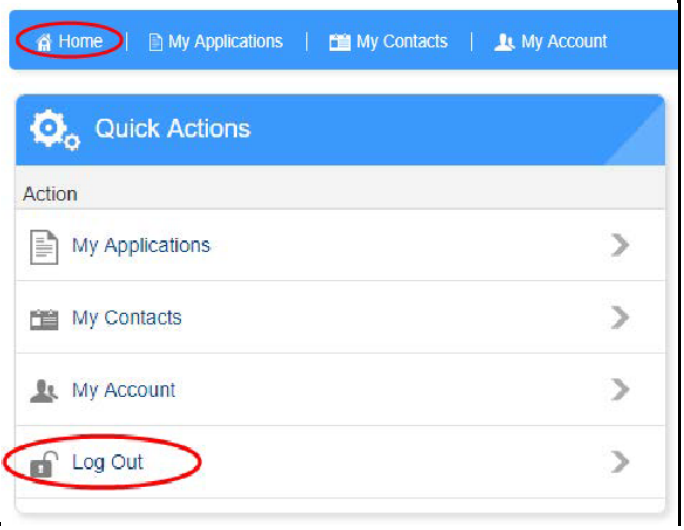
Viewing a Submitted Application

1) Use the **MY SUBMITTED APPLICATIONS** menu to get to the Online Application Center.	
2) After logging in, users will be able to click into **My Applications** and see any Incomplete or Submitted Applications.	
3) Users can view the status of the submitted application from here. Click into the **[View]** hyperlink will allow users to see more information on the application	

Changing Your Password

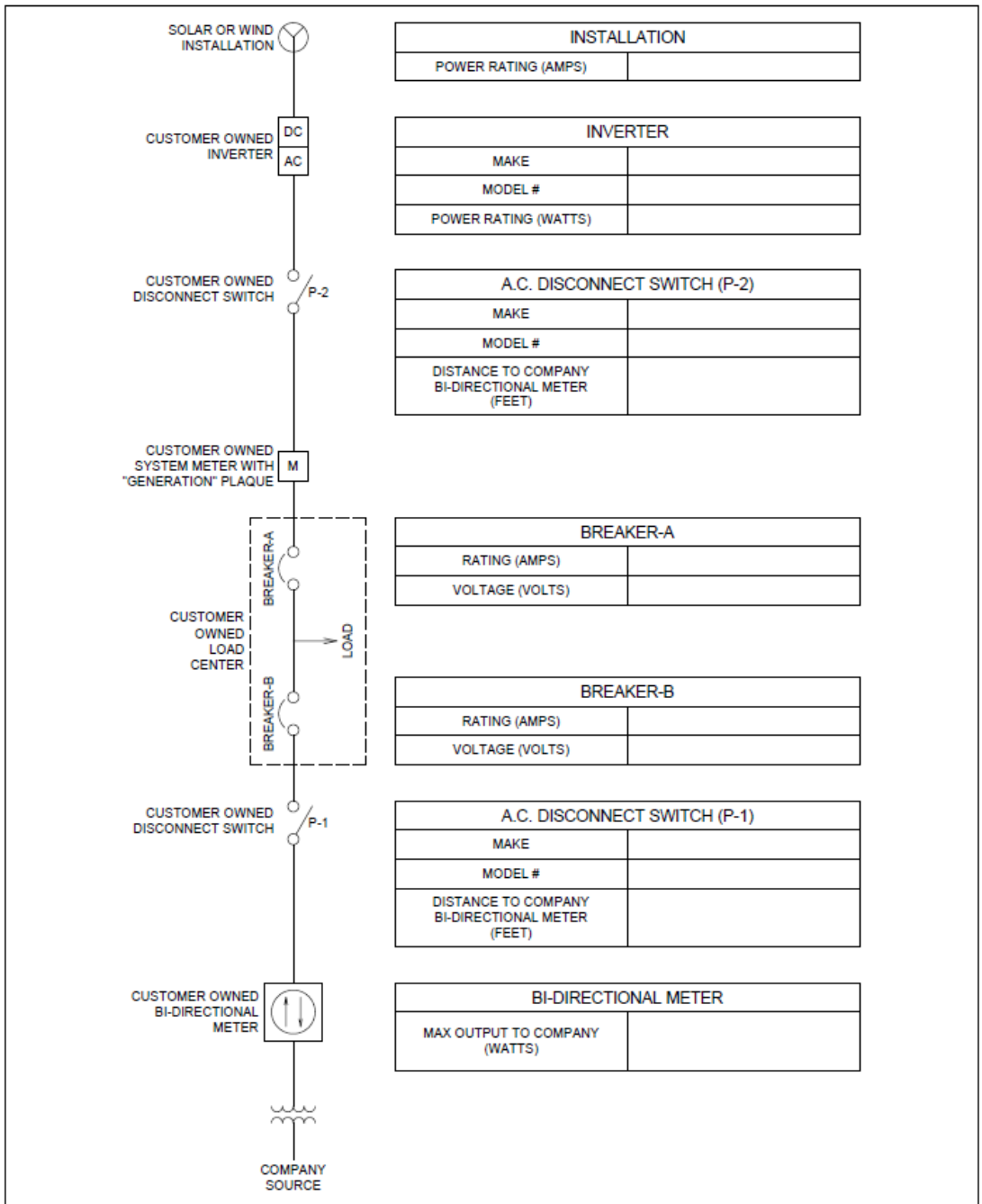
6) Click on **My Account** to update user password	

Logging Out

7) Click on **Home** to return to the Online Application Center home page. Click on the link to log out.	

Appendix B – Self Install One-Line Diagram

Figure B-1: Self-Install One-Line Diagram



Appendix C – Parallel Generation Application Supplemental Data

Appendix D – DER Transfer of Ownership/Operational Control Application

DER Transfer of Ownership/Operational Control Application

An existing DER Facility Interconnection can be transferred from an original customer-generator to a new Customer-Generator if the new Customer-Generator agrees to comply with the terms and conditions of the approved Interconnection Agreement. and notifies Evergy by completing sections A, D, and F of this application no less than thirty (30) days before the transfer.

The Company will review the submitted DER Transfer of Ownership/Operational Control Application within fifteen (15) day of receipt. If approved, The Company will complete Section G and forward a copy of the completed Application/Agreement back to the new Customer-Generator, thereby authorizing the new Customer-Generator to operate the existing DER Facility.

A. Customer-Generator Information

Evergy Jurisdiction: □ KS Central □ KS Metro □ MO Metro □ MO West

Requesting transfer existing interconnection under the following DER Interconnection Program:
(For descriptions of the DER Interconnection Programs see Evergy Distribution Interconnection Requirements and Procedures, Ssection 3.)

□ Net Metering □ PG-NE □ PG-RST □ PG-QFT □ PG-QFC

Name on Evergy Electric Account:_____

Mailing Address:_____

City:_____State:_____Zip Code:_____

Service/Street Address (if different from above): _____

City:_____State:_____Zip Code:_____

Daytime Phone:_____Fax:_____

Email: _____

Account Type: □_Residential □ Commercial □ Educational

Evergy Electric Account No.: _____

Meter number:_____

Electrical Service Capacity: Amperes _____Volts_____

Service Character:___☐ Single Phase ___☐ Three Phase

D. Terms and Conditions

In addition to abiding by the Company's other applicable rules and regulations, the Customer-Generator understands and agrees to the following specific terms and conditions:

1. Operation/Disconnection

If it appears to the Company, at any time, in the reasonable exercise of its judgment, that operation of the Customer-Generator's System is adversely affecting safety, power quality, or reliability of the Company's electrical system, the Company may immediately disconnect and lock-out the Customer-Generator's System from the Company's electrical system. The Customer-Generator shall permit the Company's employees and inspectors reasonable access to inspect, test, and examine the Customer-Generator's System.

2. Liability Insurance

All Customer-Generators may have legal liabilities not covered under their existing insurance policy in the event the Customer-Generator's negligence or other wrongful conduct causes personal injury (including death), damage to property, or other actions and claims.

In Missouri, liability insurance is not required for Customer-Generators of ten kilowatts (10 kW) or less. For generators greater that ten kilowatts (10 kW), the Customer-Generator agrees to carry no less than one hundred thousand dollars ($100,000) of liability insurance that provides for coverage of all risk of liability for personal injuries (including death) and damage to property arising out of or caused by the operation of the Customer-Generator's System. Insurance may be in the form of an existing policy or an endorsement on an existing policy.

In Kansas, the Company may not require a Customer-generator to purchase additional liability insurance.

Evergy shall not be liable directly or indirectly for permitting or continuing to allow an attachment of a Customer-generator System or for the acts or omissions of the Customer-generator that causes personal injury (including death), damage to property, or other actions and claims.

3. Metering

A Customer-Generator's facility shall be equipped with sufficient metering equipment that can measure the net amount of electrical energy produced or consumed by the Customer-generator Any meter testing, maintenance, or meter equipment change necessitated by the Customer-generator shall be paid for by the Customer-Generator.

4. Ownership of Renewable Energy Credits or Renewable Energy Certificates (RECs)

RECs created through the generation of electricity by the Customer-Owner are owned by the Customer-Generator however, if the Customer-Generator receives a solar rebate, the Customer-Generator transfers to the Company all rights, title, and interest in and to the RECs associated with the new or expanded solar electric system that qualified the Customer-Generator for the solar rebate for a period of ten (10) years from the date the electric utility confirms the solar electric system was installed and operational.

5. Energy Pricing and Billing

The net electric energy delivered to the Customer-Generator shall be billed in accordance with the Company's applicable rate schedules. The value of the net electric energy delivered by the Customer-Generator to the Company shall be credited in accordance with the net metering or parallel generation rate schedule(s), as appropriate, to the account specified in Section A. The Customer-Generator shall be responsible for all other bill components charged to similarly situated customers.

6. Terms and Termination

This Agreement becomes effective when signed by both the Customer-Generator and the Company, and shall continue in effect until terminated. After fulfillment of any applicable initial tariff or rate schedule term, the Customer-Generator may terminate this Agreement at any time by giving the Company at least thirty (30) days prior written notice. In such event, the Customer-Generator shall, no later than the date of termination of Agreement, completely disconnect the Customer-Generator's System from parallel operation with the Company's system.

Either party may terminate this Agreement by giving the other party at least thirty (30) days prior written notice that the other party is in default of any of the terms and conditions of this Agreement, so long as the notice specifies the basis for termination, and there is an opportunity to cure the default.

This Agreement may also be terminated at any time by mutual agreement of the Customer-Generator and the Company.

This agreement may also be terminated, by approval of the Commission, if there is a change in statute that is determined to be applicable to this contract and necessitates its termination.

7. Transfer of Ownership/Operational Control

If operational control of the Customer-Generator's System transfers to any other party than the Customer-Generator, a new Application/Agreement must be completed by the person or persons taking over operational control of the existing Customer-Generator System. Company shall be notified no less than thirty (30) days before the Customer-Generator anticipates transfer of operational control of the Customer-Generator's System.

The person or persons taking over operational control of Customer-Generator's System must file a new Application/Agreement, and must receive authorization from the Company, before the existing Customer-Generator System can remain interconnected with the Company's electrical system. The new Application/Agreement will only need to be completed to the extent necessary to affirm that the new person or persons having operational control of the existing Customer-Generator System completely understand the provisions of this Application/Agreement and agree to them. If no changes are being made to the Customer-Generator's System, completing sections A, D, and F of this Application/Agreement will satisfy this requirement.

If no changes are being proposed to the Customer-Generator System, the Company will assess no charges or fees for this transfer. the Company will review the new Application/Agreement and shall approve such, within fifteen (15) days if the new Customer-Generator has satisfactorily completed the Application/Agreement, and no changes are being proposed to the existing Customer-Generator System. The Company will then complete section G and forward a copy of the completed Application/Agreement back to the new Customer-Generator, thereby notifying the new Customer-Generator that the new Customer-Generator is authorized to operate the existing Customer-Generator System in parallel with the Company's electrical system.

8. Customer-Generator System Modification

If any changes are planned to be made to an existing Customer-Generator System that in any way alters the Systems characteristics, as approved in the original Application/Agreement, , then the Customer-Generator shall submit to the Company a new Application/Agreement for the entire Customer-Generator System and all portions of the Application/Agreement must be completed..

9. Dispute Resolution

Disputes between the Customer-generator and Westar Energy that cannot be resolved by the parties by other means may be brought to the appropriate Commission.

In Kansas disputes may be brought before the Kansas Corporation Commission by either party through complaint procedures as described in K.A.R. 82-1-220.

In Missouri, the disagreements may be brought to the Missouri Public Service Commission by either party, through an informal or formal complaint. Procedures for filing and processing these complaints are described in 4 CSR 240-2.070.

10. Testing Requirement

The Company may require net metered facilities to be tested according to IEEE 1547 that provides testing specifications and requirements. If testing is required then IEEE 1547.1 will be utilized to verify conformance to IEEE 1547.

IEEE 1547 requires periodic testing of all interconnection related protective functions. The Customer-Generator must, at least once every year, conduct a test to confirm that the Customer-Generator's DER Facility automatically ceases to energize the output (interconnection equipment output voltage goes to zero) within two (2) seconds of being disconnected from Company's Distribution System. Disconnecting the DER Facility from Company's Distribution system at the visible disconnect switch and measuring the time required for the unit to cease to energize the output shall satisfy this test.

The Customer-Generator shall maintain a record of the results of these tests and, upon request by the Company, shall provide a copy of the test results to the Company. If the Customer-Generator is unable to provide a copy of the test results upon request, the Company shall notify the Customer-Generator by mail that Customer-Generator has thirty (30) days from the date the Customer-Generator receives the request to provide to the Company, the results of a test.

If the Customer-Generator's equipment ever fails this test, the Customer-Generator shall immediately disconnect the Customer-Generator's System from the Company's Distribution System. If the Customer-Generator does not provide results of a test to the Company within thirty (30) days of receiving a request from the Company or the results of the test provided to the Company show that the Customer-Generator's System is not functioning correctly, the Company may immediately disconnect the Customer-Generator's System from the Company's system. The Customer-Generator's System shall not be reconnected to the Company's electrical system by the Customer-Generator until the Customer-Generator's System is repaired and operating in a normal and safe manner.

I have read, understand, and accept the provisions of Section D (1) - (10) of this Application Agreement.

Customer-Generator (print): _____

Customer-Generator (signed): _____Date: _____

Appendix E – Distribution Facility Interconnection Agreement Template

DISTRIBUTION FACILITIES INTERCONNECTION AGREEMENT

This Agreement is entered into this ____ day of _____, 202X by and between Evergy [jurisdiction], a [state incorporated] corporation (hereinafter "Company") and [Customer Name] (hereinafter "Customer-Generator") (individually, each a "Party," and together "Parties").

WHEREAS the Company is a public utility regulated by the [Missouri Public Service or Kansas Corporation] Commission ("Commission"), and is engaged in the generation and transmission of electric power and energy and the distribution and sale thereof in certain certificated portions of the State of [State]; and

WHEREAS the Customer-Generator is constructing within the certificated service territory of the Company at [Address] (the "Facility") and plans to install [XXX.XX] kW AC of [solar photovoltaic] power generation equipment to provide energy to its location ("Customer Generating Facilities").

WHEREAS the Customer-Generator will use the energy generated by the Customer Generating Facilities to supply the Facility's energy requirements;

WHEREAS the Company will supply the Customer-Generator with all energy necessary for operation of its Facility that is in excess of the energy generated by the Customer Generating Facilities, all services and energy to be provided by the Company in accordance with the Company's tariffs and rates on file with the Commission at the time of consumption;

WHEREAS, the Company will accept excess energy generated by the Customer Generating Facilities, to be compensated at a level stated in Section 10.2 of this agreement; and

NOW, THEREFORE, in consideration of the mutual promises and covenants herein contained, the Company and the Customer-Generator agree as follows:

1. Definitions

Terms not otherwise defined herein shall have the same meaning as set forth in the Company's tariffs, as applicable, in effect and on file at the Commission, as may be modified from time to time.

2. Scope and Limitations of Agreement

2.1 This Agreement shall govern the terms and conditions under which the Customer-Generator will interconnect its Customer Generating Facilities with the Company's distribution system.

2.2 Except as provided in Section 10, this Agreement does not constitute an agreement to purchase or deliver power from or to the Customer-Generator. The purchase or delivery of power or other services that the Customer-Generator may require will be covered under separate agreements, as needed or retail tariffs, as applicable.

2.3 Except as otherwise provided by the specific provisions of this Agreement, all of the Company's and applicable tariffs in effect and on file at the Commission, as may be modified from time to time, including but not limited to standby service tariffs, shall apply to the electric energy and associated services provided to the Customer-Generator. For any terms and conditions not defined within this Agreement, the Company's tariffs shall take precedence.

2.4 This Agreement shall have no effect on the costs, invoicing or payment for retail electric service to the Customer-Generator. Such service is subject to the Company's tariff, as applicable.

3. Effective Date, Term, and Termination

3.1 Effective Date. This Agreement shall become effective upon execution by the Parties.

3.2 Term of Agreement. The term of this Agreement shall begin on the date when the Customer-Generator energizes the Customer Generating Facilities and shall continue thereafter until terminated in accordance with Section 3.3.

3.3 Termination. This agreement may be terminated:

3.3.1 By the Customer-Generator at any time after fulfillment of any applicable initial tariff or rate schedule term, by giving the Company at least thirty (30) days prior written notice.

3.3.2 By either Party upon at least thirty (30) days prior written notice that the other party is in default of any of the terms and conditions of this Agreement, so long as the notice specifies the basis for termination, and there is an opportunity to cure the default.

3.3.3 At any time by mutual agreement of the Parties.

3.4 Obligations Following Termination. Customer-Generator, no later than the date of termination of the Agreement, must completely disconnect the Customer Generating Facilities from Parallel Operation with the Company's distribution system.

4. Scope of Interconnection Service

4.1 Service. The Company will allow the Customer-Generator to connect the Customer Generating Facilities to the Company's distribution system at the Interconnection Point (as identified in Appendix B) and be eligible to deliver the Customer Generating Facility's output to the Company's distribution system.

5.2 Performance Standards. Each Party shall perform all of its obligation under this Agreement in accordance with applicable laws, regulations, applicable reliability standards, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such regulations

and standards, such Party shall not be deemed to be in breach of this Agreement.

5. Interconnection Facilities, Engineering, Procurement, and Construction

5.1 In accordance with applicable study procedures, the Company will determine whether any modifications, additions, or upgrades are required to physically and electronically interconnect the Customer Generating Facilities to the Company's distribution system ("Interconnection Facilities").

5.2 If the Company determines that Interconnection Facilities are required, the Company will be responsible for the design, procurement, and construction of such facilities, as described in Appendix B. The Company shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and applicable laws and regulations. In the event the Company reasonably expects that it will not be able to complete the Interconnection Facilities, by the specified dates, the Company shall promptly provide written notice to Customer-Generator and shall undertake reasonable efforts to meet the earliest dates thereafter.

5.3 Equipment Procurement. The Company will commence design of the Interconnection facilities as soon as practicable after the following conditions are satisfied (or as otherwise agreed upon in writing):

5.3.1 The Company has received written authorization to proceed with the design and procurement of the Interconnection Facilities from the Customer-Generator.

5.3.2 The Company has received security in the amount specified in Appendix B.

5.4 Construction Commencement. The Company shall commence construction of the Interconnection Facilities as soon as practicable after the following additional conditions are satisfied:

5.4.1 All necessary governmental approvals have been obtained for any facilities requiring regulatory approval;

5.4.2 Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of the Interconnection Facilities;

5.4.3 The Company has received written authorization to proceed with construction from the Customer-Generator.

5.4.4 The Company has received security in the amount specified in Appendix B.

5.5 Permits. The Company and Customer-Generator shall cooperate with each other in good faith in obtaining all permits, licenses, and authorizations that are necessary to construct the Interconnection Facilities.

5.6 Construction Costs. The Customer-Generator will compensate the Company for its actual costs to design, procure and construct the Interconnection Facilities, as set forth in Appendix B.

5.7 Ownership. The Company will maintain ownership of the Interconnection Facilities during and after construction.

6. Customer Generating Facilities

The Customer Generating Facilities have the following specifications. A system plan, including the Point of Interconnection is attached hereto as Appendix A.

Manufacturer name plate power rating: [XXX.XX] kW [XXX.XX] kVA
Voltage: [XXX/XXX] Volts
System type: [Photovoltaic]
Interconnection Equipment location: [XXX]
Outdoor manual utility accessible & lockable disconnect switch distance from service meter: [XXX] ft.
Describe the location of the disconnect switch: [XXX]
Existing electrical service capacity: [XXX] A
Service character: [Three Phase]
Total capacity of existing Customer-Generator Facilities (if applicable): [XXX.XX] kW [XXX.XX] kVA

7. Customer Generating Facilities Installation

7.1 The Customer-Generator will install, at its own expense, the Customer Generating Facilities.

7.2 The Customer-Generator will be solely responsible for maintaining the Customer Generating Facilities in compliance with all applicable laws and regulations at no expense to the Company.

7.3 The Customer-Generator shall notify the Company at least 30 days in advance of the initial testing and energization of the Customer Generation Facilities. The Company shall have the right to have a representative present at any such testing.

7.4 The Customer-Generator shall notify the Company at least 120 days in advance of start-up of any future additions or equipment modifications to the Customer Generation Facilities or on-site generation, regardless of the source.

8. Operation of the Customer Generating Facilities

8.1 The Customer-Generator must ensure that the Customer Generating Facilities cause no damage to the Company's system or equipment and present no undue hazard to Company personnel.

8.2 If harmonics, voltage fluctuations, or other disruptive problems on the Company's system are directly attributed to the operation of the Customer Generating Facilities, such problem(s) shall be resolved at the Customer-Generator's expense.

8.3 The Company shall have the right to require the Customer-Generator, at certain times and as operating conditions warrant, to limit the production of electrical energy from the Customer Generating Facilities to an amount no greater than the load of the Facility.

8.4 If it appears to the Company, at any time, in the reasonable exercise of its judgement, that operation of the Customer Generating Facilities is adversely affecting safety, power quality, or reliability of the Company's electric system, the Company may immediately disconnect and lock-out the Customer Generator Facilities from the Company's electrical system

8.5 The Customer-Generator shall furnish, install, operate and maintain in good order and repair, and without cost to the Company, such relays, locks and seals, breakers, automatic synchronizer, a disconnecting device, and other control and protective devices as shall be designated by the Company as being required as suitable for the operation of the generator in parallel with the Company's system.

8.6 The Customer-Generator shall provide a manual disconnect switch which shall be under the exclusive control of the Company. This manual switch must have the capability to be locked out by Company personnel to isolate the Company's facilities in the event of an electrical outage on the Company's transmission and distribution facilities serving the Customer-Generator. The Customer-Generator must also provide an isolating device which the Customer-Generator has access to and which will serve as a means of isolation for the Customer's equipment during any qualifying facility maintenance activities, routine outages or emergencies. The Company shall give notice to the Customer-Generator before a manual switch is locked or an isolating device used, if possible; and otherwise shall give notice as soon as practicable after locking or isolating the Customer-Generator's facilities.

9. Metering and Distribution Costs

9.1 The Customer Generating Facilities shall be equipped with sufficient metering equipment that can measure the amount of electrical energy produced or consumed by the Customer Generating Facilities.

9.2 The Company will supply, own, and maintain all necessary meters and associated equipment utilized for billing. In addition, and for purposes of monitoring Customer-Generator generation and load, the Company may install at its expense, load research metering. The Customer-Generator shall supply, at no expense to the Company, a suitable location for meters and associated equipment used for billing and for load research. Such equipment shall be accessible at all times to utility personnel.

9.3 If it is necessary for the Company to install additional distribution equipment to accommodate the Customer Generating Facilities, the Customer-Generator shall reimburse the Company for the costs to purchase and install the necessary additional equipment.

9.4 At the request of the Customer-Generator, such costs may be initially paid for by the Company, and any amount up to the total costs and a reasonable interest charge may be recovered from the Customer-Generator over the course of up to twelve (12) billing cycles. Any subsequent meter testing, maintenance, or meter equipment change necessitated by the Customer-Generator shall be paid for by the Customer-Generator.

10. Pricing and Billing

10.1 Charges to Customer-Generator

10.1.1 Customer-Generators shall pay Company a monthly charge defined in the Company's [Parallel Generation Contract Service] schedule for additional Customer related costs of the Company.

10.1.2 The electricity supplied by the Company shall be billed to the Customer-Generator in accordance with the Company's applicable rate schedule for Customers in the same rate class;

10.2 Charges to Company

10.2.1 Minimum - There shall be no monthly minimum charge for purchases made by Company.

10.2.2 Rate - Purchases shall be made by Company from a Customer-Generator at the rate defined in the Company's [Parallel Generation Contract Service] schedule.

11. Testing and Inspection

11.1 Pre-energization. Prior to energization of the Customer Generating Facilities, the Company will test all Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. The Customer-Generator shall bear the cost of all such testing.

11.2 Post-energization. Each Party shall, at its own expense, perform routine inspection and testing and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued Interconnection of the Customer Generating Facilities with the distribution system in a safe and reliable manner. Each Party shall have the right, upon advance written notice, to require reasonable additional testing of other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.

11.3 Right to Observe Testing. Each Party shall notify the other Parties in advance of its performance of tests of its Interconnection Facilities. The other Parties have the right, at its own expense, to observe such testing.

12. Indemnification

Each party will indemnify, hold harmless and defend the other and its officers, directors, shareholders, agents, employees, and representatives from all third party claims, liabilities, fines, interest, costs, expenses and damages (including reasonable attorneys' fees) incurred for any damage, injury, death, loss or destruction of any kind to persons or property, to the extent the damage, injury, death, loss or destruction arises out of or is related to the negligence, error, omission, willful misconduct, or misrepresentation on the part of the other party or any of its servants, representatives, agents, employees or contractors.

13. Liability

13.1 Limitation on Liability. Except for the third-party indemnification obligations set forth in this Agreement, in no event will either party be liable for any consequential, incidental, direct or indirect damages to the other under this Agreement. Each party shall bear its own costs related to this Agreement.

13.2 Insurance. Liability insurance is not required of a Customer-Generator of ten kilowatts (10 kW) or less. For generators greater than ten kilowatts (10 kW), the Customer-Generator should consider carrying no less than the value of the property in liability insurance that provides for coverage of all risk of liability for personal injuries (including death) and damage to property arising out of or caused by operation of the Customer Generating Facilities.

14. Modification

No modification, amendment or waiver of any provisions of this Agreement shall be valid unless it is in writing and signed by both Parties.

15. Notice

Any bills, written notice, demand, or request required or authorized in connection with this Agreement shall be deemed properly given if delivered in person, delivered by recognized national courier service or sent by first class mail, postage prepaid, to the persons specified below:

If to the Customer Generator:

[Name]
[Address]
[Address]
[Address]

If to the Company:

Evergy, Inc
Attn: Net Metering/DER Interconnection
PO Box 418679
Kansas City, Missouri 64141-9679
E-Mail: netmeteringapp@evergy.com

16. Third Party Beneficiaries

This Agreement is intended solely for the benefit of the Parties, and nothing in this Agreement shall be construed to create any duty to, or standard of care with reference to, or any liability to, any person not a party to this Agreement.

17. Waiver

17,1 A waiver by either party of any breach of a provision of this Agreement shall not be binding upon the waiving Party unless such waiver is in writing.

17.2 The failure of either Party to insist, on occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

18. Validity

The illegality, unenforceability, or occurrence of any other event rendering any portion or provision of this Agreement void shall in no way affect the validity or enforceability or any other portion or provision of this Agreement. Any void provision of this Agreement shall be construed and enforced as if the Agreement did not contain the particular portion or provision held to be void. The provisions of this section shall not prevent the entire Agreement from being void should a provision, which is the essence of the Agreement, be determined to be void.

19. Authority

19.1 This Agreement is executed by a duly authorized representative, or employee of the Company who is fully authorized to execute this Agreement on behalf of the Company, and to fully and completely bind the Company to the terms of this Agreement.

19.2 This Agreement is executed by a duly authorized representative, or employee of the Customer-Generator, who is fully authorized to execute this Agreement on behalf of the Customer-Generator, and to fully and completely bind the Customer Generator to the terms of this Agreement.

20. Assignment

This Agreement shall not be assigned by either Party without the prior written consent of the other Party, which consent will not be unreasonably withheld. This Agreement shall inure to the benefit of and be binding upon the permitted successors and assigns of the Parties.

21. Confidentiality

Each of the Parties to this Agreement agrees to keep the terms of the Agreement herein confidential and covenants not to disclose the amount or terms of the Agreement to any person or entity not a party to this Agreement except to their accountants and attorneys. Notwithstanding any language to the contrary, the Parties may disclose all or any part of the information contained in this Agreement if such disclosure is required in order to comply with a subpoena or order issued by a court of competent jurisdiction, or as required by law, regulation or action of a regulatory agency ("Disclosure"); provided the Party with the obligation to disclose (i) immediately notifies the other Party of the existence, terms and circumstances surrounding the Disclosure, (ii) consults with the other Party on the advisability of taking legally available steps to resist or narrow the scope of the Disclosure, and (iii) if the Disclosure is required, exercises reasonable efforts at the cost and direction of the Party whose information is to be disclosed to obtain an order or other reliable assurance that confidential treatment will be accorded to such portion of the disclosed information which the Party whose information is to be disclosed so designates.

22. Miscellaneous

11.1 Entire Agreement. This Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement among the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, among the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, a Party's compliance with its obligations under this Agreement.

11.2 Choice of Law. This Agreement shall be construed in accordance with the laws of the State of [Missouri] but without regard to the conflict of laws provisions of the State of Missouri.

11.3 Headings. The descriptive headings of the articles of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.

11.4 Counterparts. This Agreement may be executed in one or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed the day and year first written above.

EVERGY [Jurisdiction], Inc.	[CUSTOMER-GENERATOR]
By: _____	By: _____
Its: _____	Its: _____
Date: _____	Date: _____

DISTRIBUTION FACILITIES INTERCONNECTION AGREEMENT

APPENDIX A

Diagram of Customer Generating Facilities

DISTRIBUTION FACILITIES INTERCONNECTION AGREEMENT

APPENDIX B

Specifications for Point of Interconnection and Construction of Interconnection Facilities

The Customer-Generator interconnects to an existing Company-owned [XXX] kVA transformer located on the south side of the existing building located east of [XXX] and north of [XXX]. The transformer is connected by underground cable to the Company's [XXX] kV system via a riser pole located on the north side of [XXX] and east of [XXX].

The Company has determined that the system design as outlined in Appendix A does not necessitate additional equipment or facility modifications to accommodate the Facilities Interconnection Agreement. Should any modifications be made by the Customer-Generator to the Customer Generating Facilities, the Company may reevaluate the Customer-Generator's Facilities and the Company's system as outlined in Section 5 of this agreement.

Revision History

Rev 1.0

- Added section 6.3.9 Frequency -Droop Operation

Rev 1.1

- Revised link to California Energy Commissioner's (CEC) list of eligible Inverters available in Sections 7.1.1 and 7.2.1.
- Revised Figure 7-5: Load Side DG plus Storage DER with PoC in a Load Panel
- Revised Figure 7-6: Supply Side DER with PoC at a Double Lugged Meter Enclosure
- Added Figure 7 7: Typical PV Install with Source tap and Generac Inverter and Battery
- Added Figure 7 8: Typical PV Install with TESLA Service Rated Gateway and Powerwall Battery

Rev 1.2

- Section 2 – Corrected the Electric Service Standard website address.
- Section 4.3 – Updated Net metering application
- Section 5.4. – last paragraph, added information for flexible interconnection.
- Section 5.5 – last paragraph, added requirement for recloser on 500 kWA and larger systems.
- Section 6.3.10 – Additional Protection and control considerations
- Section 7.1.1 - Revised link to show internet path to California Energy Commissioner's (CEC) list of eligible Inverters available.
- Section 7.1.2 – Renamed Net meter to Main Meter. Show source and load directions on meters.
- Section 7.2 – Added wording on BESS participating in wholesale marketing.
- Section 7.2.1 – Revised link to show internet path to California Energy Commissioner's (CEC) list of eligible Inverters available.
- Section 7.2.2 – Renamed Net meter to Main Meter. Show source and load directions on meters. Revised drawing to show Generation meter and disconnect ahead of DER.

Rev 1.3

- Section 5.3 – removed 25kW DER limit.
- Section 5.6.1 was renamed to DER interconnections which includes net metering and parallel generation and also allowing for multiple production meters.
- Section 5.6.2 was renamed to additional metering requirements for large arrays etc.
- Revised Table 7.1 to remove UL 1741 SA, and added note that Inverters shall be certified to the latest version of UL 1741
- Section 7.1.2 increased amperage for DER facility requiring CT metering to 400 amps.
- Section 7.1.2 added wording on source (Top -towards utility source) and Load (Bottom – towards DER source)
- Section 7.2 removed wording on specific brand references not participating in wholesale marketing.
- Renamed Figure 7.8 to remove specific brand reference
- Added Figure 7.9 – Production Meter Wiring and added note on Neutral grounding.

Rev 1.4

- Reformatted.

- Section 5.5 added wording on Wholesale customers recloser requirement.

Generation – Standby

Scope

This section outlines the requirements for customers installing standby (backup) generation systems intended to supply customer loads during loss of utility power. These requirements ensure that standby generation does not unintentionally backfeed Evergy's electrical system and complies with applicable codes and Company standards.

This section also includes requirements for closed-transition (make-before-break) transfer systems that momentarily parallel with the utility during transfer.

Note:

- This section does not apply to parallel systems operating in conjunction with Evergy's system. See **9300.0-000** to determine what generation category the system applies to. See **9300.49-000 Distributed Energy Resources [DER]** for parallel generation requirements.

Open-Transition Requirements

Transfer Equipment

Standby generation must be connected using a break-before-make (open-transition) transfer switch or equivalent switching device.

The transfer equipment must prevent any possibility of backfeed onto Evergy's electrical system.

All switching devices must comply with NEC Article 702 and applicable local codes.

Customer Submittal Requirements

Customers must submit detailed installation plans to Evergy prior to installation. Plans should include:

- Equipment specifications.
- Electrical one-line diagrams.
- Site layout or installation description.
- Any additional documentation requested by Evergy.

A Company Representative must review and approve the plans before the standby generator is placed in service.

Submission Location

Plans, documents, and questions shall be submitted to Customer Service.

Closed-Transition (Make-Before-Break) Backup Generation Requirements

Closed-transition transfer systems allow the generator to parallel with Evergy's system for a short duration (<250 ms) during transfer. When customers install closed-transition systems, the following requirements apply, based on Evergy's relay protection and system coordination standards. **Closed-Transition Backup Generation requires approval from a Standards Representative.**

General Protection Requirements

Closed-transition systems must include protective relaying and control schemes that:

- Coordinate with Evergy's system protection to ensure safe operation.
- Supervise synchronization to prevent closing the generator onto the utility when out of phase or when the utility source is de-energized.
- Prevent energizing Evergy's system when the utility source is dead.

Required Customer Submittals

Customers must provide the following documentation prior to approval:

- Installation drawings, including:
    - AC schematics.
    - DC schematics.
    - All breaker arrangements.
    - Current and potential transformer (CT/PT) connections.
- Complete generator data sheets, including:
    - Generator reactance.
    - kW and kVAR ratings.
    - Power factor.
- Interconnection transformer data, including full nameplate information.
    - Transformer must be wye-connected on the Evergy side.
- Relay settings and calculations, including:
    - All relay element settings.
    - Calculation sheets used to develop settings.
    - Electronic relay setting files in manufacturer's native format and PDF.
    - Minimum required relay functions: 25/27, 47, 51/51N, 59, 67N, 81.

Testing Requirements

Before operation, customers must perform:

- Bench testing (secondary injection) of all relays and transfer switches to verify correct operation.
- Functional testing of the complete system, including verification that relay outputs correctly trip lockouts and breakers.
- Load testing to validate correct CT and PT monitoring.
- Coordination of testing schedules so Evergy personnel may attend if necessary.

Control System Requirements

All digital relay and transfer switch failure alarms must be monitored and acted upon by the customer's control system.

Closed-Transition Timing Requirement

Total time the generator is paralleled with Evergy's system during closed-transition switching must be less than 250 ms (15 cycles).

Control systems must be hardwired to automatically break parallel and trip breakers if parallel duration exceeds this limit.

Voltage Unbalance Requirement

Evergy follows ANSI C84.1 Appendix D2, limiting maximum voltage unbalance to 3% under no-load conditions.