	Operating Procedure	Procedure No.	750-04
		Revision No.	0
		Effective Date	2/16/2018
Standby Power Connection Procedure		Distribution Restriction: None	

PURPOSE

1. This procedure provides guidance for the connection of standby electrical power for residential and commercial facilities within the IREA service territory.


REQUIREMENTS

1. Standby (i.e. backup) power systems, to include generators and or batteries, can be installed on a residential or commercial facility.
2. Optional standby systems are intended to supply power to public or private facilities or property. Optional standby systems are intended to supply on-site generated or stored power to selected loads either automatically or manually.
3. The generators or batteries do not operate in parallel with the utility. The Batteries may be charged from the utility but may not supply power to the customer's load outside of standby operations.
4. All designs must be in conformance with the National Electric Code (NEC) Article 702, Optional Standby Power.


APPLICATION AND INSTALLATION PROCESS

The following is a step by step process for applying for standby power:

1. Customer will submit a completed application (Appendix A) with all required documentation to IREA for review and approval. Please include the following documents with the application:
 - a. One-line diagram that includes the meter, transfer switch, backup power source, disconnect to backup power source, the main disconnect / circuit breaker for the facility.
 - b. Backup power source and transfer switch specifications sheet.

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- c. A site plan showing the meter, disconnect, transfer switch, and standby power source.
2. IREA will review application for completeness and technical specifications.
3. After application approval, a qualified person can install the following:
 - a. A manual or automatic transfer switch to allow only one energy source to provide power to the load at any given time. The utility being one power source, the backup power being the other power source. The residential or commercial facility is considered the load that the power is supplied to. At no time can the backup power source be interconnected or in parallel operation to the grid.
 - b. A lockable visual disconnect mounted within five (5) feet and reachable from the meter housing or service entrance.
 - c. The standby power source.
4. Contact IREA to schedule an outage. During the outage, a qualified person shall connect the transfer switch to the utility. IREA personnel shall inspect the following:
 - a. Verify standby power operation with no back feed to the utility.
 - b. Verify visible, lockable disconnect.
 - c. Install/Verify signage on meter housing, disconnect switch and transformer indicating standby power source.
5. Additional Information:
 - a. All back up power must be installed in accordance with NEC standards.
 - b. Generators, batteries, inverters, and transfer switches must be UL certified.

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- c. You are responsible for any injuries or damage to your property, your neighbors' or IREA's, from an improperly installed or operated standby power source.

ONSITE STANDBY POWER CONFIGURATION EXAMPLES

There are two typical onsite standby power configurations. Below is a list of configurations with example one line drawings:

1. Standby Energy Operation with Generator. (Diagram No. 1)
2. Standby Energy Battery Storage (Diagram No. 2)

Each diagram provides the representative configuration in principle and may have other features not reflected in the diagram, but the operational principle shall be consistent with the operational principle demonstrated by the diagram. The desired functionality maybe controlled by inverter or control system programing. The diagrams are attached at the end of the text and are considered a part of this guidance.

REQUIRED LABELING

Signage is required in accordance with IREA Small Generation Interconnect Guidelines (750-02).

Diagram 1

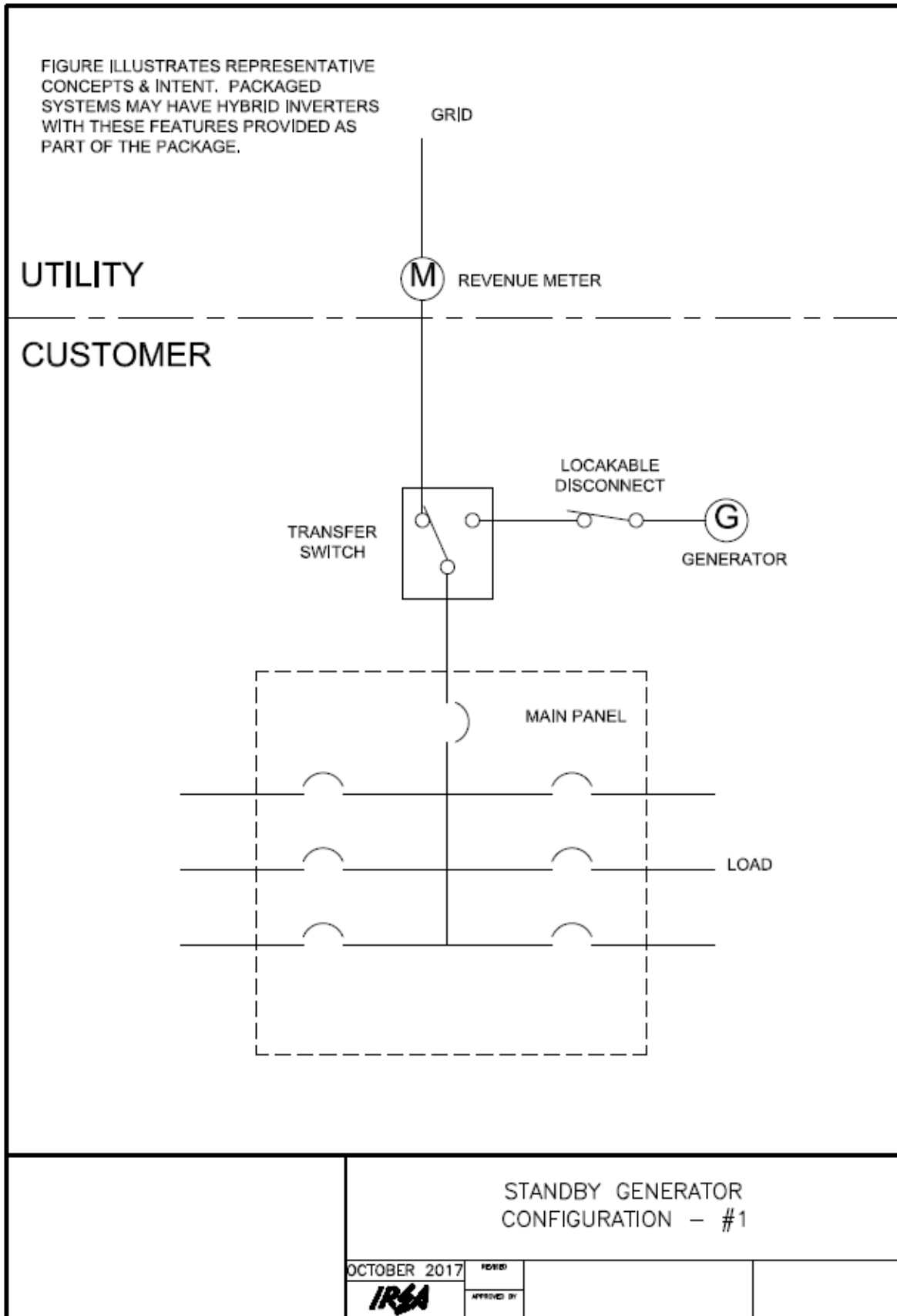
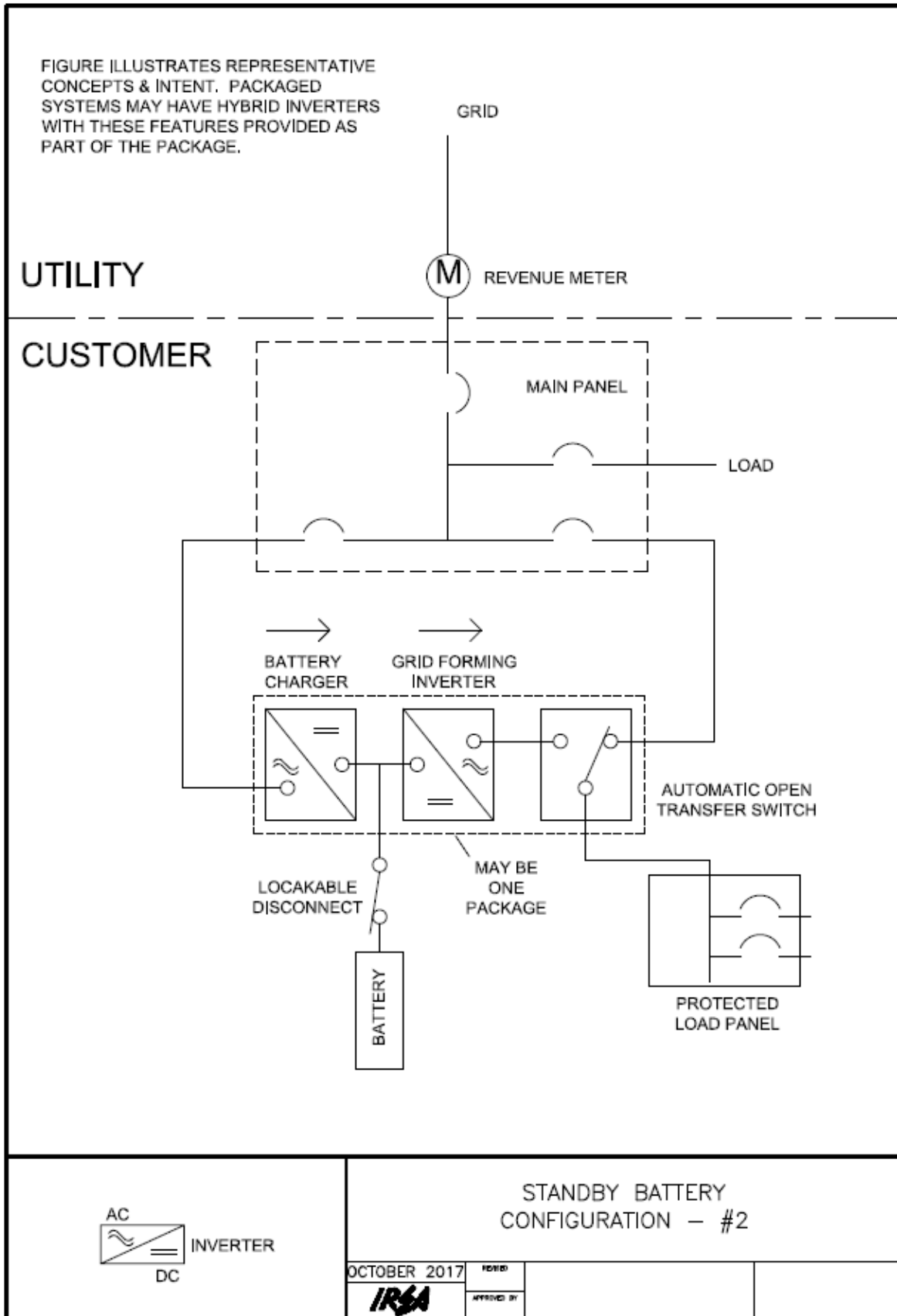


Diagram 2



Backup Energy Connection Application

Interconnection Customer Information

Name: _____ Contact Person: _____

Account Number: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact Phone Number: _____ E-Mail Address: _____

Equipment Installation Contractor/Electrical Contractor (If different from above)

Name: _____

Company Name: _____

Contact Phone Number: _____ E-Mail Address: _____

Backup Energy Equipment Information:

Location (street address if different from above): _____

Type of Backup Energy: Generator Battery

Backup Power source Manufacturer: _____ Model: _____

Nameplate AC Rating: (kW) _____ (kWh) _____ (AC Volts) _____

Single Phase Three Phase UL approved

Inverter Manufacturer (If different from battery):

Model: _____ UL 1741 approved

Nameplate AC Rating: (kW) _____ (kVA) _____ (AC Volts) _____

Please include the following documents with the application:

Major components specifications sheet showing UL listing

One-line Diagram

Site Plan

Customer Signature: _____ Date: _____