GENERAL RULES

A. Should the installing contractor or electrician need to disconnect the electrical service at any point, the installer must contact Rock Energy to schedule a time for Rock Energy crews to perform the disconnect. Cutting the meter seal or making any alterations to Rock Energy's equipment by anyone other than Rock Energy crews will result in a tampering fee being applied to the member's bill.
B. Member owned equipment shall not be installed in any cabinets or meter socket areas that are sealed by Rock Energy
C. Meter assemblies that contain breakers must meet Short Circuit Current Rating (SCCR), Fault Current Ratings and Amperage Interrupting Current (AIC), if the meter assembly does not contain breakers, these ratings do not apply.
D. Splices are not allowed in meter sockets, pedestals, or cabinets.
E. Metering equipment shall not be used as a raceway unless designed with such provisions.
F. It is not permitted to modify or install lugs in a meter socket, pedestal, or metering transformer cabinet other than what is listed on the manufacturer's drawing associated with the UL listing.

WORKSPACES AND CLEARANCES

G. Rock Energy requires a minimum of 48" of working space in front of each meter, meter cabinet, or instrument transformer cabinet. This is measured out from the face of the meter or doors of the cabinet and a minimum 30" wide
H. A minimum of 6" vertical and horizontal separation shall be maintained between metering equipment and other obstructions or non-metering equipment (NEC 125)
I. The space shall be large enough to allow cabinet doors to open 90 degrees
J. The space shall be clear from final grade to at least 6'6" (8' preferred) above the ground
K. A minimum of 30" wide shall be provided to access the work area
L. Working space shall not be used for storage of any kind

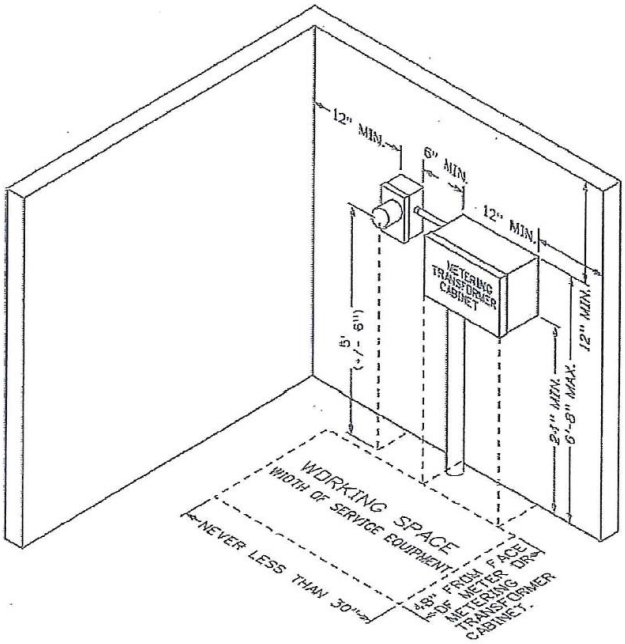

FIGURE 1: CLEARANCES AND WORKING SPACES

DISCONNECT SWITCH

M. Shall be lockable in the open position
N. Should disconnect DG only and not disconnect load
O. Location of disconnect switch should be within 10' and visual line of sight of the meter base, or in accordance with Rock Energy's Technical Specification Manual, whichever distance is less
    1. An exception may be granted with Rock Energy's consent. In which case a permanent placard must be placed on the meter socket indicating the location of the disconnect on a full site overview.
P. Any DG connection on the line side of the main service disconnect shall have a service entrance rated disconnect switch with overcurrent protection
Q. Shall be properly sized UL listed NEMA 3R rated

TRANSFER SWITCHES

A. Notes
    1. A make before break switch is that which has no disruption to the load when operating
    2. A break before make switch requires disruption to the load when operating
    3. In accordance with IEEE-1547, Battery Energy Storage Systems (BESS) are permitted to operate in parallel with the Cooperative's electrical distribution system while utility-supplied power is present. In the event that utility-supplied power is lost, the transfer switch must isolate the BESS from the Cooperative's electrical distribution system and then function as a standby source or cease to operate
B. Safety
    1. Member must consult Rock Energy before connecting any generating equipment to any member circuit that is, or can be, supplied from Rock Energy's electrical distribution system
    2. Transfer switches may only be located before the main service disconnects where they meet the member's service's AIC
    3. The member's device shall be installed to mechanically prevent any possibility of power from the member's standby source feeding back into Rock Energy's electrical distribution system
    4. It is the member's responsibility to comply with all rules and labeling requirements of the National Electric Code (NEC) or any other jurisdictional codes
C. Requirements
    1. Rock Energy shall approve automatic transfer systems
    2. The member may supply any portion of their electrical load from a standby generator or BESS
    3. The member shall install a transfer switch or contactor in order to transfer load from ungrounded conductors between the normal utility supply and standby generator or BESS
    4. All transfer switch devices that meet UL 1008 Rated and designed with Break-Before-Make connections will not require a Standby Generation Disconnect
    5. Transfer switches that do not meet UL 1008 shall have a lockable, visually open break in the circuit that isolates the utility normal supply from the member's transfer switch. This break, referred to as the Standby Generation Disconnect, shall be accessible to Rock

Energy and should be located within 10’ of the meter socket, unless otherwise labeled as approved by Rock Energy. A circuit breaker may be considered if installed with a locking mechanism and approved by Rock Energy.

D. Transfer Switch Options
   1. Permitted
      i. Manual or automatic double throw switches
      ii. Double throw relays
      iii. Mechanically interlocked switches (only when Cooperative-accessible)
      iv. Breaker panels with factory designed mechanical interlocks
   2. Not Permitted
      i. Key interlocked switches or breakers
      ii. Switches that plug into the meter socket
      iii. The addition of splices or taps in meter sockets and metering transformer cabinets

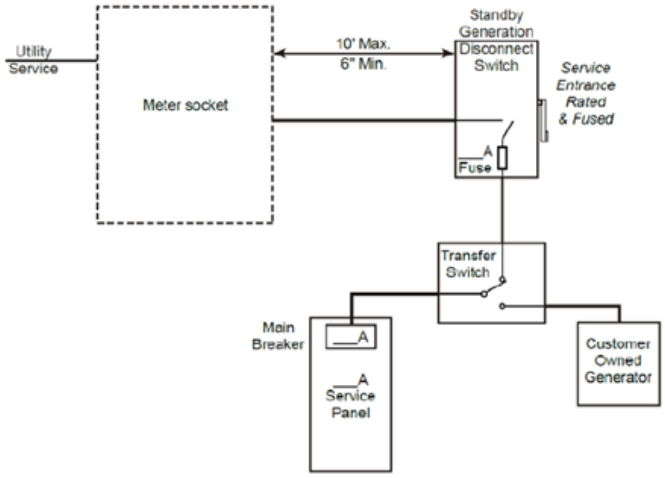

FIGURE 2: 1-PHASE/3-PHASE, FULL SERVICE BACKUP

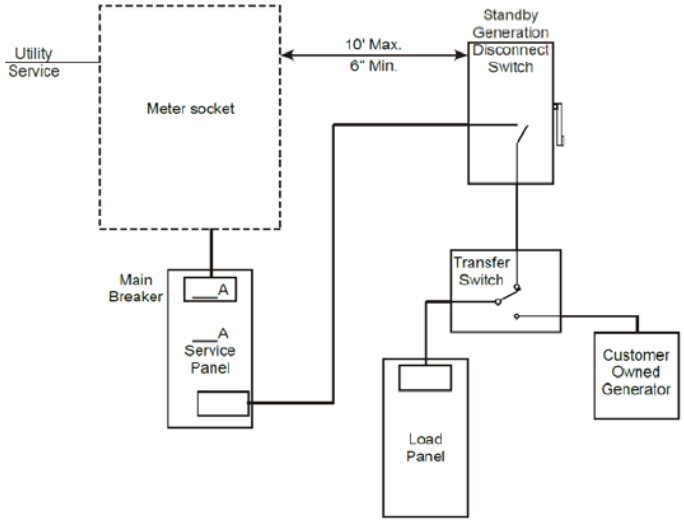

FIGURE 3: 1-PHASE/3-PHASE, PARTIAL LOAD BACKUP

POINT OF INTERCONNECTION

A. Preferred Methods
    1. DG interconnected via a properly sized sub breaker downstream from the main disconnect in the service panel
    2. Meter socket with main for alternative energy
    3. Meter socket with factory installed dual lugs, 320 A
    4. Attached to metering transformer cabinet with available lugs
B. Allowable Methods
    1. Properly sized UL-listed NEMA 3R sealable bussed gutter
    2. Properly sized UL-listed NEMA 3R termination box
C. Not Permitted Methods When Connecting DG on the Line Side of the Member's Overcurrent Protective Device
    1. Splices
    2. Split bolts
    3. Tap connectors
    4. Insulation piercing connectors
    5. Installing more cables than lugs are designed to handle
    6. Modifying or installing lugs on any equipment on the line side of the overcurrent protective device, other than what is listed on the manufacturer's drawing associated with the UL listing

WIRING INSPECTIONS

A. Member wiring installations shall meet the minimum requirements as set forth by current NFPA 70 NEC, state regulatory commissions, and the local Authority Having Jurisdiction (AHJ). Rock Energy shall receive written approval from the AHJ.
B. Where no inspection authority exists, Rock Energy shall receive a complete signed copy of WI or IL wiring affidavit before energizing any new or modified electric service.
C. Rock Energy reserves the right to inspect for compliance with these standards but assumes no responsibility for the inspection of the member's installation.

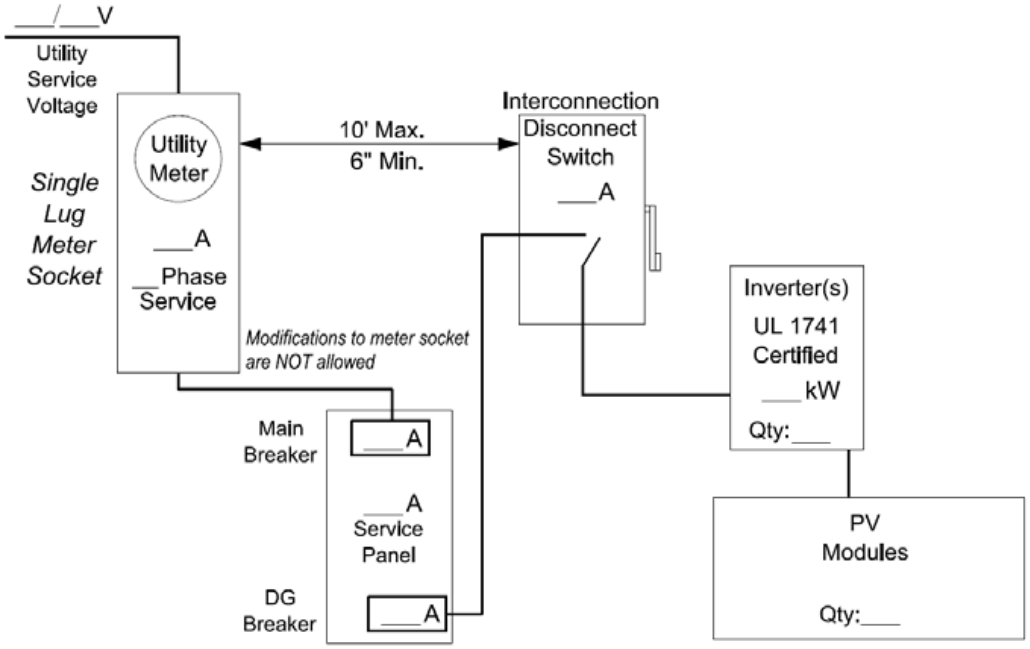

FIGURE 4: 1-PHASE/3-PHASE, SELF-CONTAINED, SINGLE LUG

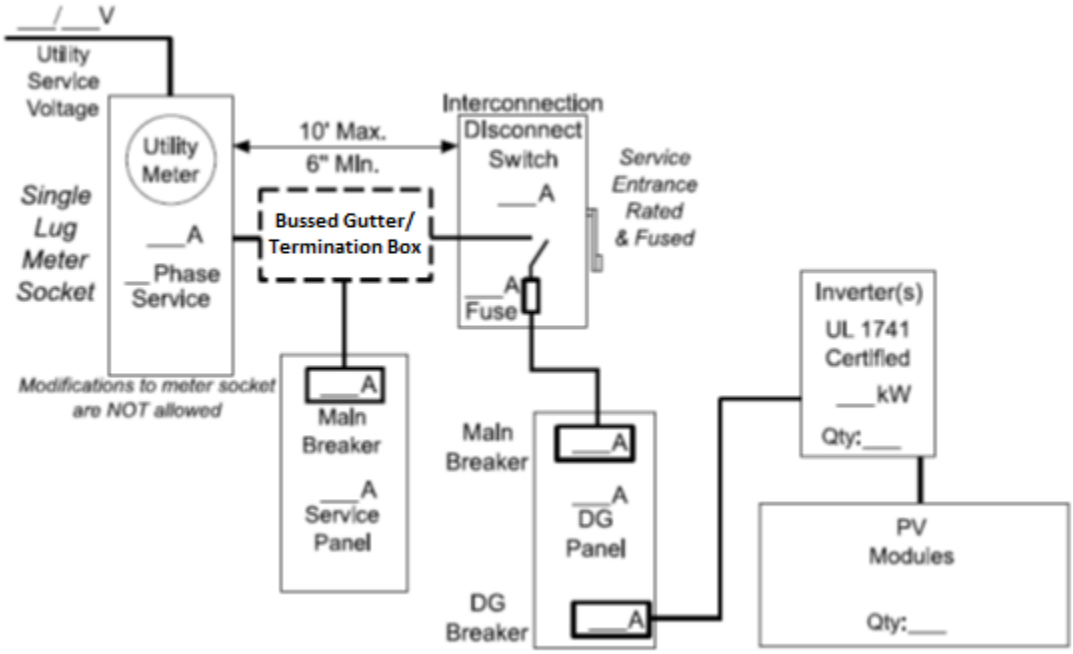

FIGURE 5: 1-PHASE/3-PHASE, SELF-CONTAINED, SINGLE LUG UL LISTED GUTTER OR UL LISTED TERMINATION BOX

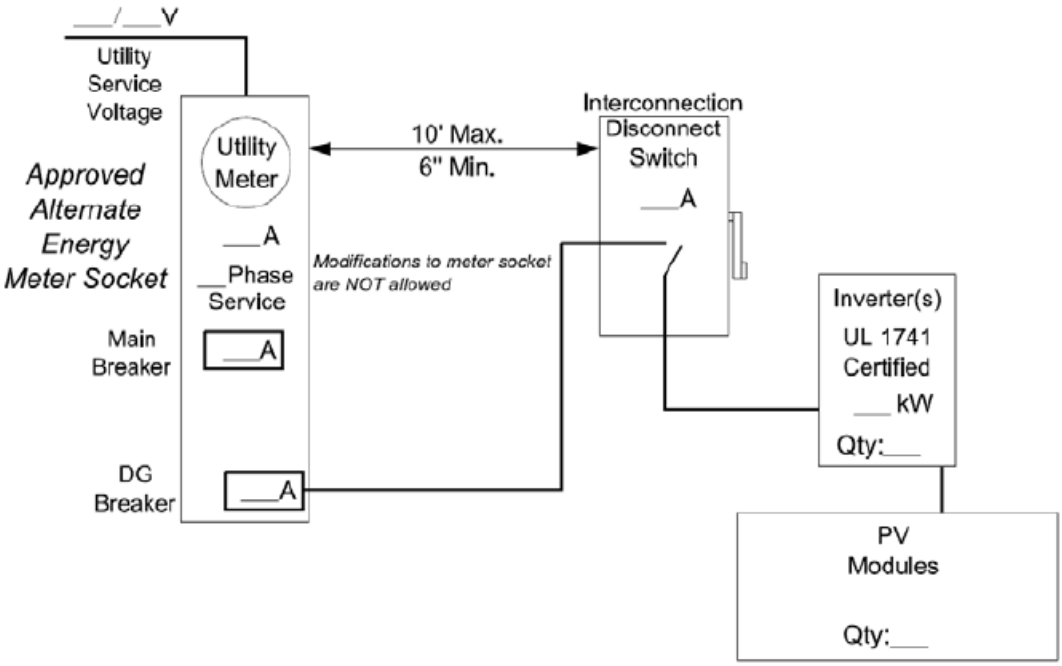

FIGURE 6: 1-PHASE/3-PHASE, SELF-CONTAINED, APPROVED ALTERNATE ENERGY METER SOCKET, 200 AMP MAIN, 60-70 AMP DG BREAKER

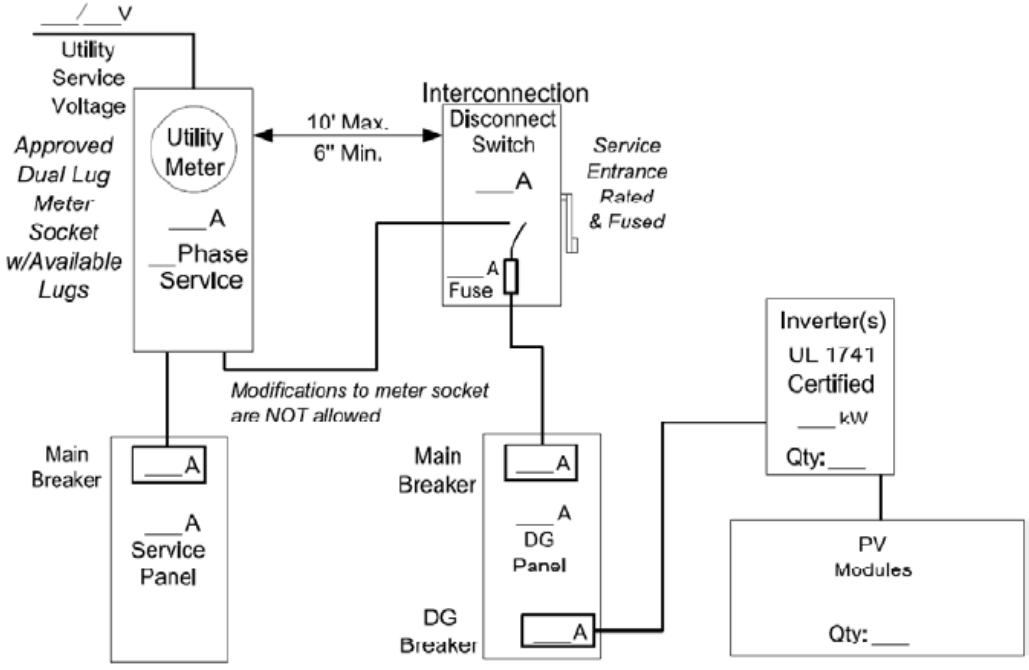

FIGURE 7: 1-PHASE/3-PHASE, SELF-CONTAINED, APPROVED DUAL LUG METER SOCKET

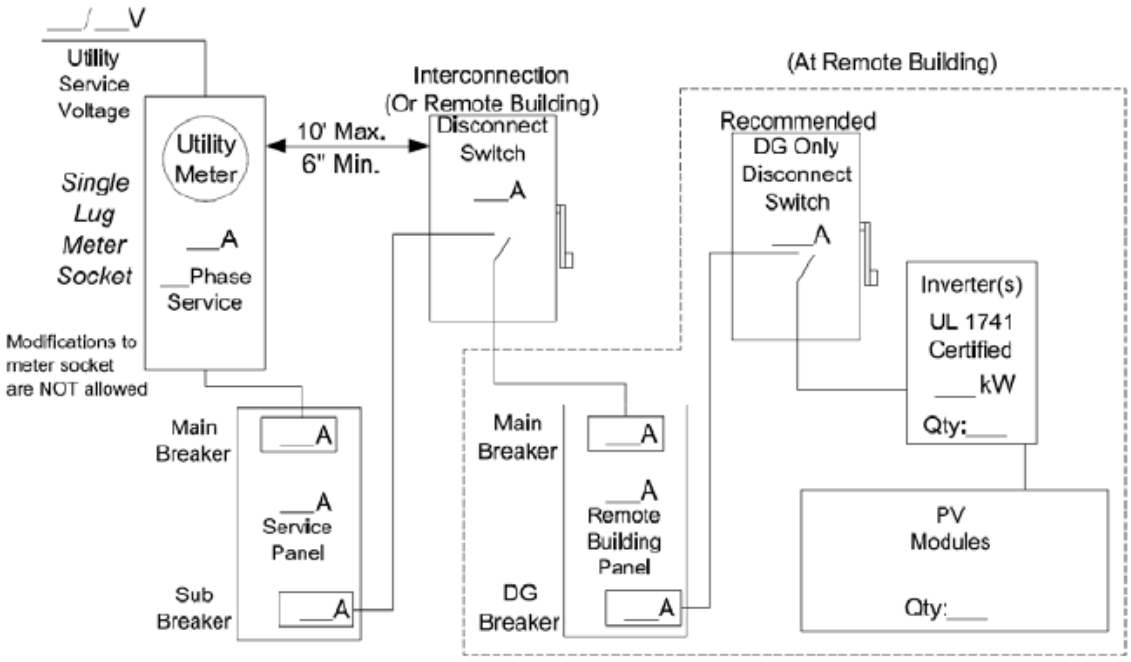

FIGURE 8: 1-PHASE/3-PHASE, SELF-CONTAINED, SINGLE LUG REMOTE BUILDING WITH DG

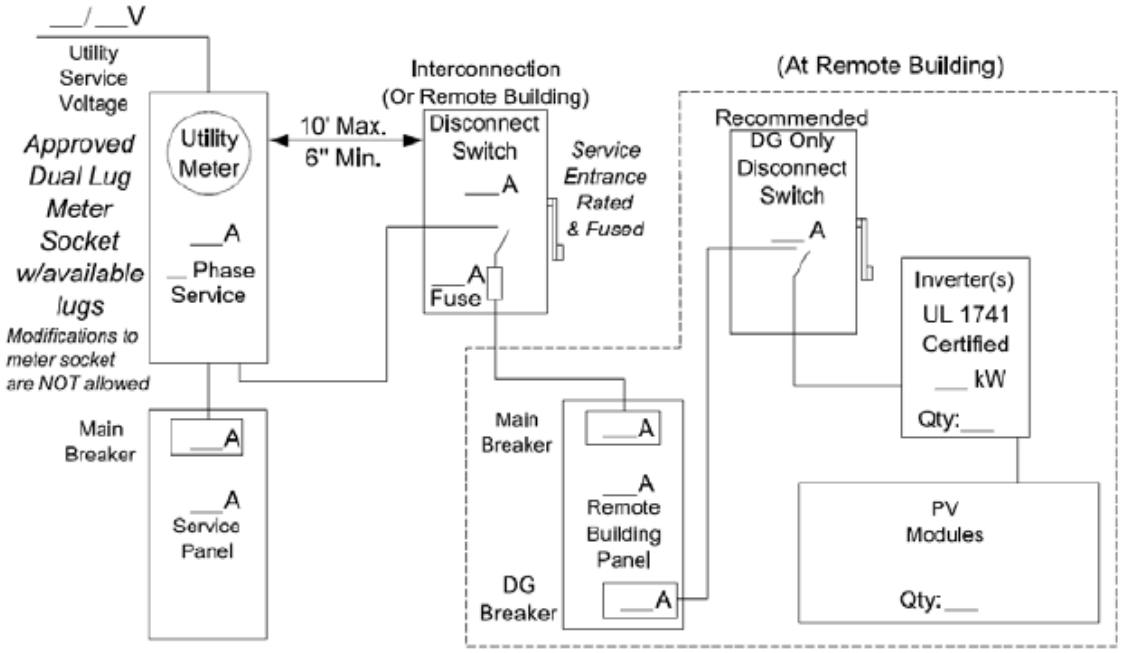

FIGURE 9: 1-PHASE/3-PHASE, SELF-CONTAINED, DUAL LUG REMOTE BUILDING WITH DG

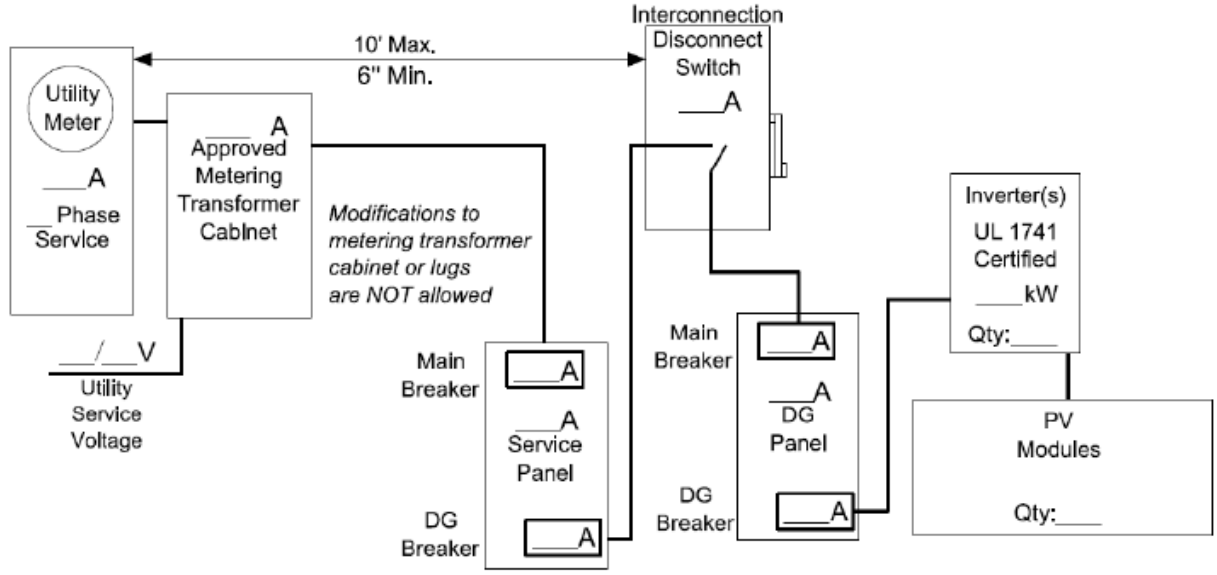

FIGURE 10: 1-PHASE/3-PHASE, METERING TRANSFORMER CABINET

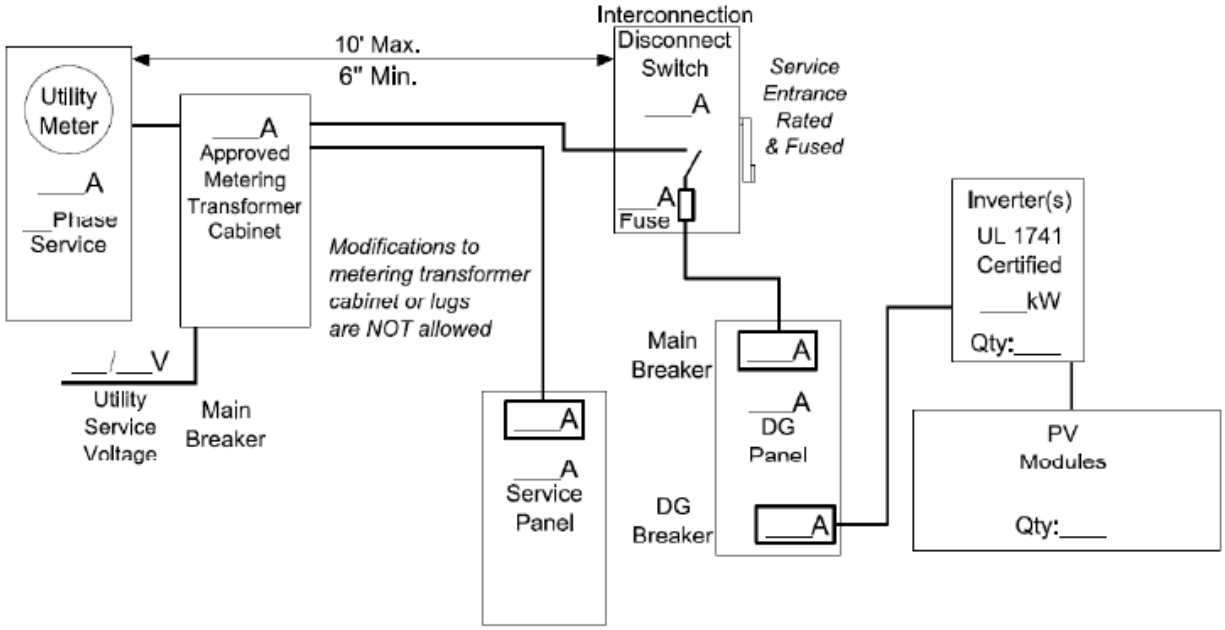

FIGURE 11: 1-PHASE/3-PHASE, METERING TRANSFORMER CABINET WITH AVAILABLE LUGS IN METERING TRANSFORMER CABINET

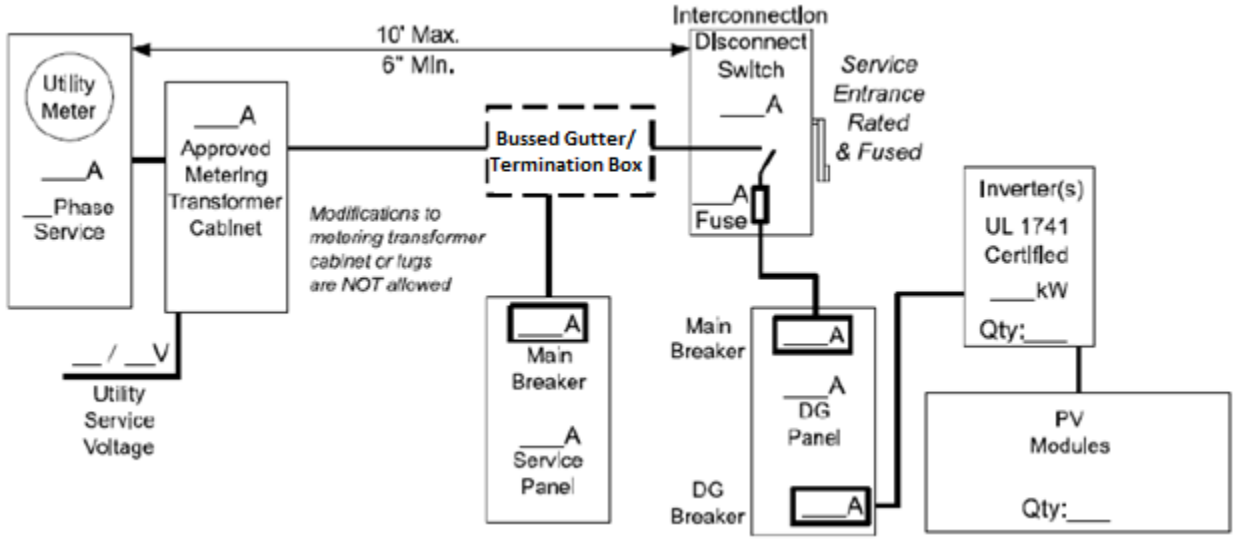

FIGURE 12: 1-PHASE/3-PHASE, METERING TRANSFORMER CABINET, WINGLE LUG, UL LISTED BUSSED GUTTER OR UL LISTED TERMINATION BOX

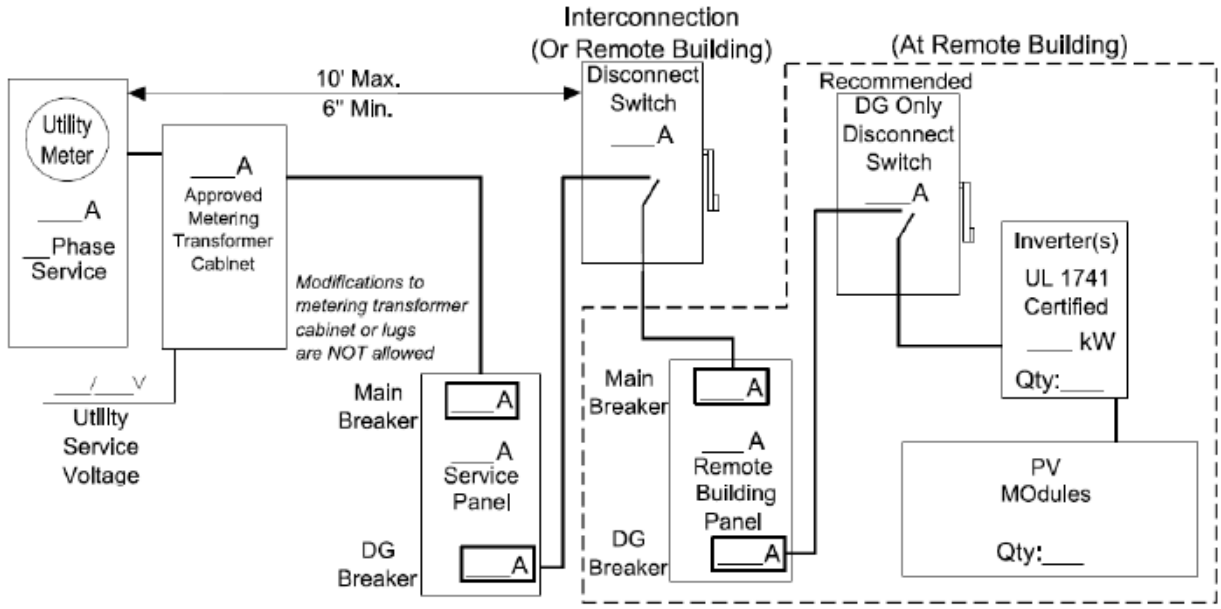

FIGURE 13: 1-PHASE/3-PHASE, METERING TRANSFORMER CABINET, REMOTE BUILDING WITH DG

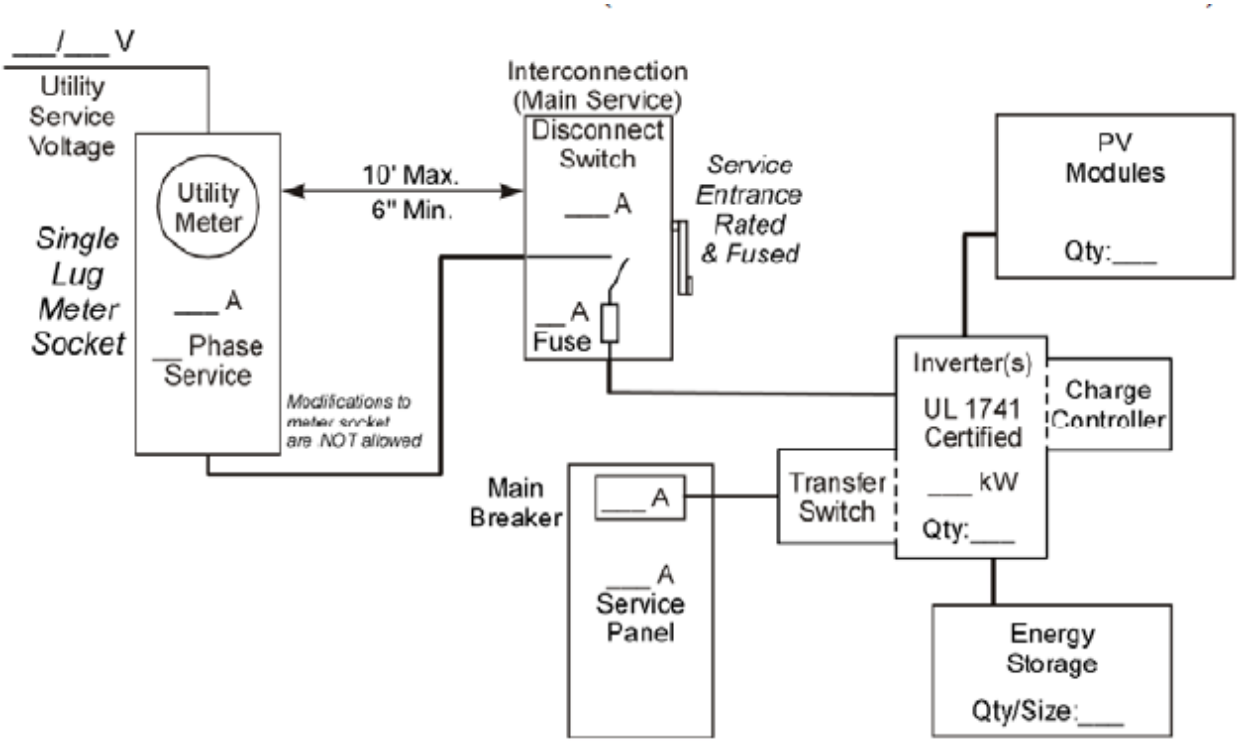

FIGURE 14: 1-PHASE/3-PHASE, SELF-CONTAINED, SINGLE LUG + BATTERY STORAGE SYSTEM (ENTIRE SERVICE BACKUP)

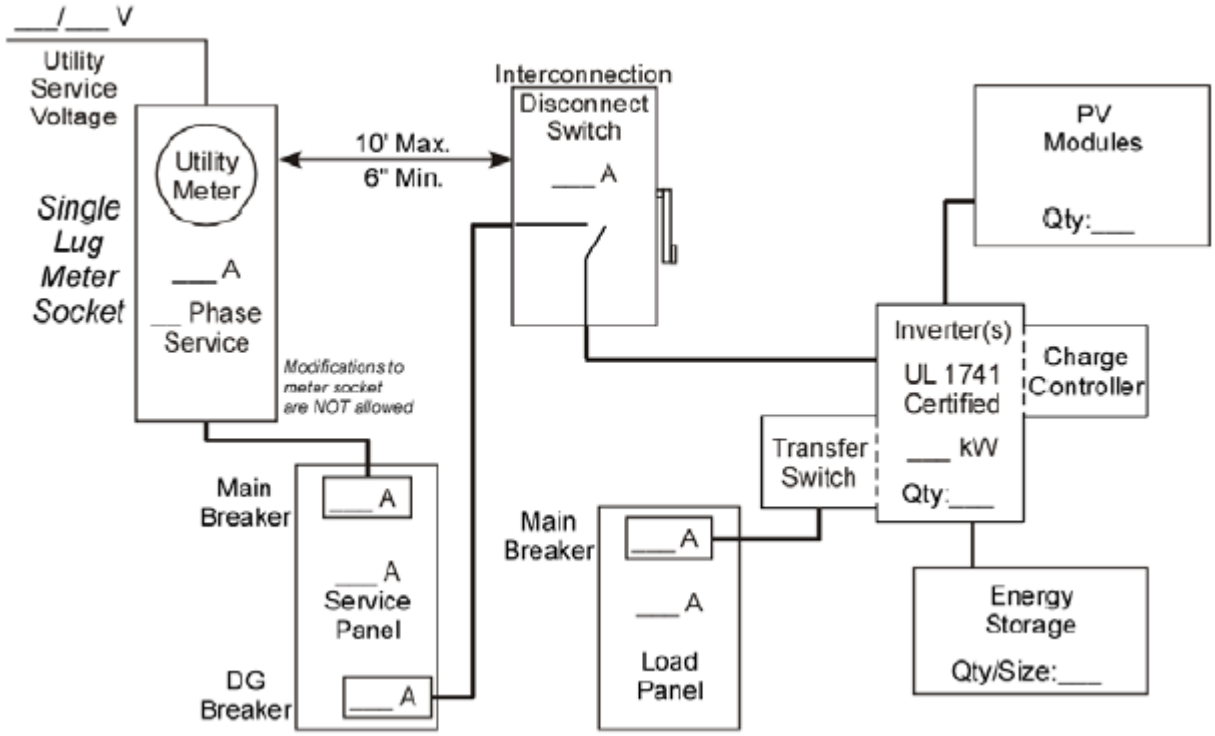

FIGURE 15: 1-PHASE/3-PHASE, SELF-CONTAINED, SINGLE LUG + BATTERY STORAGE SYSTEM LOAD PANEL