# **Metering Guidelines**

Latest Update to all specs can be found at Bluebonnetelectric.coop

For the member's safety, wiring installation and material shall conform to the requirements of the NEC, TDLR and NESC. All Wiring Installations must also meet local guidelines, if applicable, set forth but the city, county, or other governing entity in the event these requirements are more stringent than Bluebonnet specifications.

#### **General Notes**

**Applicable to All Specs** 

- 1. Weatherproof fittings are required for all connections.
- 2. The main electrical disconnect for each electrical service, if not mounted on a Bluebonnet pole or on an approved rack, shall be unenclosed and installed on the exterior of the building or approved structure in a location approved by Bluebonnet Electric Cooperative
- 3. Meter assembly must remain unenclosed on the exterior of a structure.
- 4. Meter assembly cannot be mounted on a mobile home.
- 5. Any part of a meter rack or equipment rack shall be a minimum of six feet from Bluebonnet poles or equipment, and shall not impede access for maintenance to Bluebonnet's poles or equipment.
- 6. Bluebonnet poles must remain free of structures and private attachments other than the meter loop/meter loop riser assembly.
- 7. Meter loops or risers shall be installed on pole by Bluebonnet.
- 8. All secondary connections are to be made by Bluebonnet.
- 9. Neutral(s) must be insulated and may only be reduced two sizes on residential applications. No reduction of the neutral(s) is allowed on commercial applications.
- 10. Each phase must be sized to accommodate the total main fuses or breakers installed
- 11. Electric service to fire pumps shall be served through a CT-metered service.
- 12. Where three-phase is used to provide single-phase service to individual occupants, the load must be balanced between all three phases as equally as possible. This applies whether the single phase services are individually metered or not.
- 13. For all jobs requiring excavation, including rack or underground, the individual or contractor performing the work shall call TEXAS811 for locating jobs before digging to Bluebonnet equipment. No private utilities will be located.
- 14. Mobile Home Feeder Cables may not be used from Transformer or UJB to Meter unless the fourth (Green or Bare) Ground wire can be and is removed before installing.



# **CT Metering Notes**

Applies to: MS-112B1, MS-112B3, MS-113B1, MS-113B3, MS-114A1, MS-114B3, MS-115-1, MS-115-3, MS-202A1, MS-202B3, MS-204B1, MS-204B2, MS-204B3, MS-207B, MS-301B, MS-301C, MS-406A, MS-533-1, MS-533-3, MS-554-1, MS-554-3

1. CT Enclosures may be purchased from Techline (512-332-2978) and Installed by Member:

Minimum Size 1 Phase: Main Enclosure 30" x 30" x 12"

Backup Enclosure 24" x 30" x 13"

Minimum Size 3 Phase: Main Enclosure 42" x 30" x 13"

Backup Enclosure 24" x 30" x 13"

- 2. CT enclosures may be purchased at any supplier as long as it meets the minimum dimensions and is able to accommodate a Bluebonnet pad lock.
- 3. Bluebonnet to provide CTs.
- 4. The electrical contractor will notify Bluebonnet 72 hours in advance to schedule Bluebonnet personnel to deliver the CT's. The electrician shall install the CT's on the rack with the correct polarity before the conductor is brought through the CT enclosure. Call **(800-842-7708)** to schedule a connect.
- 5. Electric service to fire pumps shall be served through a CT-metered service.

# **Standby Generator Notes**

Applies to: MS-400, MS-401, MS-401A, MS-402, MS-402A, MS-403, MS-404, MS-405, MS-406, MS-406A, MS-407, MS-408, MS-412

- 1. Generators shall be placed a minimum of 15' away from Bluebonnet's pole(s) and/or equipment and outside of Bluebonnet's easement.
- 2. Transfer switches may be on Bluebonnet pole, only if they are in place of a main panel. They may not be in addition to a panel.
- 3. Any transfer switch that serves as a main (first device past meter) must be service rated
- 4. Generators must be connected with a dedicated transfer switch. Breaker interlocks are not acceptable.
- 5. Portable generators may be connected to an inlet through a transfer switch.
- 6. Transfer switches that plug into the meter base are not acceptable.

#### **Renewable Energy Connection Notes**

Applies to: MS-501, MS-502, MS-507T, MS-553-1, MS-553-3, MS-554-1, MS-554-3, MS-41115, MS-41119

- The solar and/or battery disconnect(s), if not mounted on an approved rack, shall be installed on the exterior of the building or approved structure in a location approved by Bluebonnet Electric Cooperative.
- 2. DG disconnect must be clearly labeled and identified.
- 3. Bluebonnet poles must remain free of structures and private attachments other than the meter loop assembly or riser.
- 4. Inspection may be required by local jurisdiction if applicable.
- 5. DG meter or equipment rack (If Applicable) shall be a minimum of 6' away from Bluebonnet's poles and/or equipment.
- 6. Any installation with Batteries are required to have an accessible disconnect or method of shutdown to disable batteries.



#### Notes: Single Phase Transformer Layout Line taps shall be made in the galvanized trough by the electrical Back of Transformer contractor. More than (6) main disconnects require a properly sized main Transformer disconnect ahead of the galvanized trough. Bluebonnet will complete wiring into transformer. Have 10' additional amount of wire for termination. Transformer Opening THREE PHASE APPLICATIONS ONLY DESCRIPTION: 200amp, 7 terminal, 3-phase, 4-wire will require a lever by-pass meeting ANSI C12.7, UL 414, and NEMA 3R. Meter cans are Side of Side of Transformer Transformer available for purchase through Techline or any other electrical supplier MEMBER CONDUIT & MEMBER CONDUIT provided it meets all Bluebonnet Electric Cooperative specifications. ( ) SECONDA Member/Electrician shall coordinate with Bluebonnet personal to install all conduit and the pulling of the secondary wire to the transformer. Member/Electrician shall notify Bluebonnet 48 hours in MEMBER CONDUIT SHALL STOP 36" FROM BOX. MEMBER SHALL PROVIDE SCH. 40 PVC CONDUIT ELBOW WITH A 24" SWEEP AND 10' OF ADDITIONAL CABLE RUN. advance to schedule a time/date to perform the work. If additional trips are made to the site by Bluebonnet personnel, Front of Transformer applicable fees maybe applied. No more than four 60-200 Amp See "Metering Guidelines" for other applicable notes. meter sockets and weatherproof main disconnects. No more than one disconnect per enclosure. Galvanized trough Equipment rack 2" steel pipe with uni-strut horizontal supports. М М М Conduit above finished grade shall be minimum galvanized metal or schedule 80 Gray PVC -6, rigid nonmetallic conduit. Load Load Load Load Point of Service Transformer Meter rack placement from transformer: Transformer 5' from side of transformer, 10' from front of secondary 0 2 ပ transformer and a maximum distance. 3000 psi bushings Conc. Front of 12" Finished Grade Transformer 1 Available 2" or 3" service conduit stub outs could exist on facilities installed Minimum Minimum Minimum Minimum after November, 2009. Older installations will require the installation of Bluebonnet 30 members conduit and elbow by Bluebonnet at transformer. If stub out does Primary not match members conduit then member shall provide a new stub out or Min. reducer. Cable 24" 24" Conduit below finished grade from Bervice to load cable underground transformer (or UJB) shall 24" Minimumenclosed in minimum be minimum schedule 40 Gray PVC rigid schedule 40 Gray PVC nonmetallic conduit. Min. honmetallic conduit. CURRENT CARRYING CAPACITIES AND CONDUIT/NIPPLE SIZE REQUIREMENT OF STANDARD WIRE SIZE. 8' ground rod to be (RHH, RHW, THW, THWN, THHN, AND XHHW) REFER TO NEC FOR OTHER CALCULATIONS. driven 12" below grade. COPPER CONDUCTOR ALUMINUM CONDUCTOR (Member Installed) WIRE SIZE CONDUIT/NIPPLE SIZE BREAKER SIZE WIRE SIZE BREAKER SIZE CONDUIT/NIPPLE SIZE #6 60 AMP 11/4" CONDUIT 11/4" CONDUIT 60 AMP #4 100 AMP 11/4" CONDUIT #2 100 AMP 11/4" CONDUIT 125 AMP 1½° CONDUIT #1/0 125 AMP 1½° CONDUIT #1 #2/0 150 AMP 2" CONDUIT 150 AMP 2" CONDUIT #2/0 2" CONDUIT Approved By: Drawn By: Checked By: 10 OR 30, 60-200 AMP UNDERGROUND GANG MOUNTED METERS ON RACK OR BUILDING NOT TO EXCEED A TOTAL OF 800 AMPS. MS COMMITTEE **Blue**bonnet MS COMMITTEE RG

REVISIONS

12-07-2017 ADDED WIRE SIZING CHART.

12-07-2017 ADDED MAIN BREAKER NOTE

Scale :

NONE

Date :

11-04-2021

MS - 205