

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.
15. If Communication lines are present, 43" of clearance must be maintained between the lowest energized equipment and communication line. Equipment includes but is not limited to drip loops, neutral, transformers, etc.
16. Meter sockets not furnished by Bluebonnet will need to be ringless.

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

1. 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:

- Line taps shall be made in the galvanized trough by the electrical contractor.
No more than (2) conductors per phase shall be allowed.
- No more than (2) risers will be connected per installation.
- Wire sized to total disconnect sizes. (See Chart Below)
- If secondary service exceeds (2) 2", 3", or 4" approved electrical metal conduit; BEC will install a primary underground transformer at member's expense.
- Maintain 3"-6" distance between the disconnect and the meter can. Member shall use a metal nipple. A straight or offset nipple is acceptable.
- #6 solid, bare ground copper wire and clamp attached to Bluebonnet's pole ground.
- See "Metering Guidelines" for all other applicable notes.

Ⓐ Transformer Pole Riser Length:
35' Pole = 20' Riser
40' Pole = 24' Riser

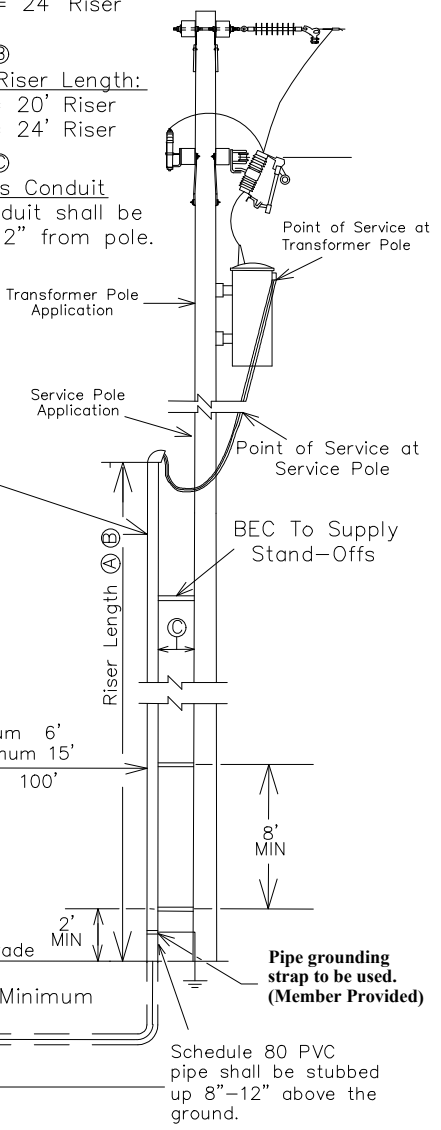
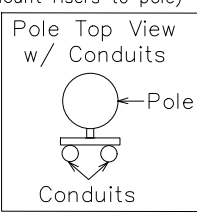
Ⓑ Service Pole Riser Length:
30' Pole = 20' Riser
35' Pole = 24' Riser

Ⓒ Member's Conduit
Member's conduit shall be installed 8"-12" from pole.

FOR THREE PHASE APPLICATIONS
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 available for purchase through Techline any other electrical supplier provided it meets all Bluebonnet Electric Cooperative specifications. Techline

No more than four 60-200 amp metersockets and weatherproof main disconnects. No more than one disconnect per enclosure.

RISER ONLY
Only 2", 3", or 4" approved electrical metal conduct allowed above finished grade. Risers will not exceed 2 risers per pole. Member will provide 10' of conductor tails from top of weatherhead. BEC to supply Stand-Offs. (Bluebonnet to mount risers to pole)



8' ground rod to be driven 12" below grade

3000 PSI. Concrete Min.

24" Minimum

Service to load cable enclosed in minimum schedule 40 nonmetallic conduit.

Equipment rack 2" or 3" steel pipe with uni-strut horizontal support.

Galvanized Trough
Rack minimum 6'
Building minimum 15'
Maximum 100'

5' MIN. - 6' MAX.
Center of Meter

Finished Grade
2' MIN

8' MIN

Minimum schedule 40 rigid nonmetallic service conduit below finished grade. No schedule 40 conduit allowed above ground level on source side of main disconnect.

CURRENT CARRYING CAPACITIES AND CONDUIT/NIPPLE SIZE REQUIREMENT OF STANDARD WIRE SIZE. (RHH, RHW, THW, THWN, THHN, AND XHHW) REFER TO NEC FOR OTHER CALCULATIONS.					
WIRE SIZE	COPPER CONDUCTOR/ BREAKER SIZE	CONDUIT/NIPPLE SIZE	WIRE SIZE	ALUMINUM CONDUCTOR BREAKER SIZE	CONDUIT/NIPPLE SIZE
#6	60 AMP	1 1/4" CONDUIT	#4	60 AMP	1 1/4" CONDUIT
#4	100 AMP	1 1/4" CONDUIT	#2	100 AMP	1 1/4" CONDUIT
#2	125 AMP	1 1/2" CONDUIT	#1/0	125 AMP	1 1/2" CONDUIT
#1	150 AMP	2" CONDUIT	#2/0	150 AMP	2" CONDUIT
#2/0	200 AMP	2" CONDUIT	#4/0	200 AMP	2" CONDUIT

1Ø OR 3Ø 60-200 AMP MULTIPLE METERS ON RACK OR BUILDING NOT TO EXCEED A TOTAL OF 800 AMPS



DATE	REVISIONS	Drawn By :	Checked By :	Approved By :
12-07-2017	ADDED WIRE SIZING CHART.	RG	MS COMMITTEE	MS COMMITTEE
11-19-2019	ADDED SOLID COPPER NOTE.	Scale :	Date :	
11-04-2021	ADDED MAIN BREAKER NOTE.	NONE	11-04-2021	MS-105