Metering Guidelines for Instrument Rated Metering and Check List for Electrical Contractors

Guidelines for Transformer rated metering installations

NOTE:

- These are general guidelines and are **not** intended to replace the Austin Energy Design Criteria Manual.
- Specific design requirements and final approval of any transformer rated metering installation shall be directly coordinated with the Distribution Metering Operations Dept.

  *For further details, refer to section 1.9.0. of the **Austin Energy Design Criteria Manual –Latest Edition**.*

  Please read the entire contents of these guidelines

Electricians and Contractors within the Austin Energy (AE) service area:

The Distribution Metering Operations section of Austin Energy *requires that all transformer-rated services be inspected **before** any meter is set. The **Austin Energy Design Criteria Manual** section 1.4.1 requires that the Customer must apply for electric service **before** any meter can be energized.*

- Instrument Rated or CT Rated inspections need to be called in and passed before you call for a '305' from the City of Austin Inspection section.
- Ensure the address for the property or unit being worked on has been added to all required COA and AE systems. (Amanda, 911 addressing, AE Billing)
- Please allow 5 business days for your CT Inspection to be completed, once it has been scheduled with Distribution Metering Operations Dispatch. Email: aedmodispatch@austinenergy.com
- Please allow up to 5 business days for your meter installation after the CT inspection has passed.
- Once the meter is on the system, the customer will need to contact AE Customer Care at (512)494-9400 to set up an account and apply for service.
- If the service does not pass the inspection, you will be charged a re-Inspection Fee that will be added to your permit fees. Any corrections that will need to be made, will be discussed with you on site, by phone, or e-mail. You will also receive a metering correction notice stating the corrections that need to be made.

Please contact Distribution Metering Operations, with any questions you may have. If you leave a voicemail message, be sure to provide the following:

- Your name
- Your phone number
- The address of the installation
- The permit number of the installation

Contact **Distribution Metering Operations Dispatch** for inspections, scheduling, and installation: aedmodispatch@austinenergy.com

Contact **Distribution Metering Operations** for general metering questions: aedistributionmetering@austinenergy.com

Contact **AE Meter Review** for metering design questions (such as - meter spots, load questions or one-line review) or equipment sizing and/or part numbers: aemeterreview@austinenergy.com

Metering Guidelines for Instrument Rated Metering and Check List for Electrical Contractors

Tasks you must perform when building Instrument Rated installation(s) are listed below.

For Instrument Rated service installations up to 600 amps:

- ❑ When a Customer's service size exceeds 350 amps, for single phase or 225 amps for three phase, the customer shall use an AE approved Transocket (for single phase 120/240v services or three phase - 120/208v services, three phase 120/240v services, or three phase 277/480v services).
  For further details, reference section 1.9.1.9 in the Austin Energy Design Criteria
  https://austinenergy.com/ae/contractors/electric-service-design-and-planning

- ❑ When using a transocket for three phase 277/480v services, a VT (voltage transformer) enclosure, a VT Pack, and harness are required.
  For further details, contact Distribution Metering Operations:
  aedistributionmetering@austinenergy.com

- ❑ When using a transocket for three phase 277/480v services with a VT enclosure, there shall be a #6 AWG copper conductor for case grounding, from the transocket to the VT enclosure. This ground must be connected to the earth ground or a driven ground run inside conduit only, not external to either enclosure.
  Note: All conduits entering or leaving the meter can or meter socket shall use knockouts provided.
  For further details, refer to Austin Energy Design Criteria Manual sections 1.9.1.9 O

For Instrument Rated service installations with up to 4000 amps:

- ❑ Mount the CT enclosure. Be sure you **do not** mount it on its side or up-side-down.
  For further details, refer to the Austin Energy Design Criteria Manual section 1.9.1.9.

- ❑ All CT enclosures shall be double door hinged enclosures only
  For further details, refer to the Austin Energy Design Criteria Manual section 1.9.1.9 C.

- ❑ Mount the CT's either vertically or horizontally inside the can using the supplied mounting bar or backplate. Be sure that each polarity mark faces the line side of the service.
  "White dot to the pot"
  For further details, refer to Austin Energy Design Criteria Manual section 1.9.1.9 F.

- ❑ Mount the meter can. Refer to Austin Energy Design Criteria Manual section 1.9.2 for heights and clearances.
  Note: All conduits entering or leaving the meter can or meter socket shall use knockouts provided.
  For further details, refer to Austin Energy Design Criteria Manual sections 1.9.3.3 E, and Appendix – Exhibit 1-11.

- ❑ Install all required plastic bushings for line (service), load, and metering conduit end inside the enclosures.

- ❑ Pull the conductors through the current transformers (CTs).

- ❑ Apply color codes to the conductors in the CT enclosure to indicate the service voltage and proper phasing.
  For further details, refer to Austin Energy Design Criteria Manual section 1.3.7.

- ❑ Run the #6 ground wire, either solid or stranded, from the earth grounded terminal (supply side) in the disconnect, tap can (SDE), or gutter through the CT enclosure and into the meter can. Ensure the ground is bonded to the CT enclosure and bonded to the grounding stud provided in the meter can.
  For further details, refer to Austin Energy Design Criteria Manual section 1.9.1.9 N

- ❑ Label the meter can or socket to reflect the street number of the address and any additional information required to uniquely identify that address, such as a unit number, suite number, or building number. Use 2" numbers or letters.
  For further details, refer to the Austin Energy Design Criteria Manual section 1.9.1.7.

Tasks you must perform when building Instrument Rated installation(s) are listed below.

For installations metered at the transformer bushings:

- ❑ Mount the meter can.
  Refer to Austin Energy Design Criteria Manual section 1.9.2.C for heights and clearances.

- ❑ All conduits entering or leaving the meter can or meter socket shall use knockouts provided.
  For further details, refer to Austin Energy Design Criteria Manual sections 1.9.3.3 E and Appendix – Exhibit 1-11.
  For details on how to construct the support structure (build the "rack"), refer to the Austin Energy Design Criteria Manual Appendix Figure 1-11

- ❑ Install the plastic bushing in the meter can.

- ❑ Run the #6 ground wire (stranded) from the secondary compartment of the padmount transformer to the meter can or socket. Bond the ground wire to the meter can or socket. Also run a pull string when running the # 6 ground wire in the 1 1/4 "conduit.
  For further details, refer to Austin Energy Design Criteria Manual section 1.9.1.9

- ❑ Label the meter can or socket to reflect the street number of the address and any additional information required to uniquely identify that address, such as unit number, suite number, or building number. Use 2" numbers and letters.
  For further details, refer to the Austin Energy Design Criteria Manual section 1.9.1.7

If you are upgrading a service, whether the existing meter(s) will be removed or not, you only need to provide meter number(s) of meter(s) involved in the upgrade. If you remove a meter, or meters, give the meter(s) to any Austin Energy personnel.

For further details, refer to the Austin Energy Design Criteria Manual section 1.9.1.5.