

AE Design Criteria for 2013 Outline

Summary

Austin Energy has revised the 2009 Austin Energy Design Criteria for the purpose of updating the information with current practices and requirements. The Basic organization of the 2013 Design Criteria remains the same as the 2009 document.

Notable changes to the existing 2009 Criteria included in the updated 2013 Criteria:

- Section 1.2.0 Updated Electric Inspection Phone number

- Section 1.3.3 Exceptions to One point of service not allowed in manual will be required to be approved by AE prior to Plan review.

- Section 1.3.5 Electrical Facility Ownership Clarified AE facility ownership requirements.

- Section 1.3.9 Revised disconnect main in accordance with City Electric Code

- Section 1.4.8 Para. E: Meter Equipment Installations – Customer is required to furnish, install, own, and maintain all metering equipment as listed.

- Section 1.4.9 Para. D: Meter equipment Installations - Customer is required to furnish, install, own, and maintain all metering equipment as listed.

- Section 1.4.11: Service Requests for Mobil Food Vending – New section for the electrical service for the venue site.

- Section 1.4.13: New Customer Demand Load Determination- Revised to be in accordance with NEC for conductor sizing. AE will require undiversified load requirements AE for Design. Conductor requirements in the Network Service area.

- Section 1.5.1.2 Table and notes: Ampacity changed from 833 amps to 800 amps.

- Section 1.5.1.4 Para A: Ampacity from less than 833 amps to 800 amps or less.

- Section 1.5.1.4 Para. B: - Customer required to furnish and install conduit to AE service point.

- Section 1.5.1.5 Para. A: Underground 216Y/125V Service – COMMERCIAL- Ampacity from less than 833 amps to 800 amps or less.

- Section 1.5.1.5 para. B: - Ampacity changed from 833 amps to 800 amps.

- Section 1.5.1.5 Para. C: - Revised Customer conduit installation requirements. Added conductor requirements.

- Section 1.5.1.6 Para. A: - Revised 300kW (833 amps) to 800 amps. Added revisions to include sub-grade transformer vaults in the Network service area.

- Section 1.5.1.6 Para. C: - Revised customer's service point as determined by AE Network Design.

- Section 1.5.1.6 para. D: - Revised that AE will own and maintain conduit to customer property line, customer responsible for installation.

- Section 1.5.1.6 Para. I: - Revised customer contact from Network Design to AE Complex Metering for metering.

- Section 1.5.1.7 Para A: - Revised that customer contact both Civil inspection and Network Design for civil inspections.

- Section 1.5.2.1 Para. H Revised Customer's Main disconnect shall be in accordance with City of Austin Electric Code.

- Section 1.5.2.1 Para. P: New paragraph for Dual feed Services Customer need to Contact AE Key Accounts.

- Section 1.5.2.2 Available Commercial Electric Service: Added new foot note to table for customer to verify correct electrical phasing at electrical service location.

- Section 1.5.2.3 Para. C Item 1 & 2 Revised weatherhead to servicehead.

- Section 1.5.2.4 Para. B item 3 – Customer installed service conduit no more than 150 feet long and not have more than a total of 270 degrees of preformed bend.

- Section 1.5.2.6 Para. D, 1 a. bullet: Three-phase padmount transformers up to 750 kVA can take a maximum of eight conductors per phase/neutral instead of six.

- Section 1.5.2.7 Para. A item 3 Minor revision to clarify fuses, breakers or such Oter device that can be used as a disconnect.

- Section 1.5.2.9 Para. A.: Removed the requirements that all leased space need to individually metered. They will however need to be labeled sequentially. Also word Important is removed from the next two paragraphs. The paragraphs are revised with regard to terminal blocks.

- Section 1.5.2.9 Para. B-1:- Removed Highly Recommendation Load Requirements for shell buildings.

- Section 1.5.2.9 Para. B -2 Included modular metering with the metering equipment.

- Section 1.5.2.12 Para. D Added water and wastewater infrastructure to the list for item to check

- Section 1.5.3.3 Para. B. bullet 1:- Require the permanent overhead service to be installed on a 6 inch post/pole instead of a 4 inch post/pole.

- Section 1.5.3.3 Table 1.5.3.3.C.2: -Revised the service wire over the roof overhang to be 10 foot to be consistent with service clearance over the roof.

- Section 1.5.3.3 Para. 4a:- Require the Customer to furnish and install the one-point rack.

- Section 1.5.3.3 Para. 4c:- Require the Customer to furnish and install, own and maintain the one-point rack.

- Section 1.5.3.3 Para. E -1 Added that phase ID is required 12" from servicehead.

- Section 1.5.3.6 Para. A: - Revised to include grouped meters with-in the building.

- Section 1.5.2.12 Para. D Added Water and wastewater infrastructure

- Section 1.6.1: Revised AE contact from Illumination Group to AE Design.

- Section 1.6.4 last paragraph: Revised to require the Customer to furnish St. Light foundations and pull string in conduit. Old requirement was that the AE furnished the foundations and charge the Customer cost.

- Section 1.6.5: Added monthly energy charges in accordance with the AE Nightwatchman terms and conditions. Required the customer to install pull-string and added the wording standard AE St. Light poles.

- Section 1.6.6: Required the customer to install pull-string and lighting foundations added the wording standard AE St. Light poles and fixtures.

- Section 1.6.7: Added in accordance with the Nightwatchman terms and conditions. Required the customer to install pull-string, standard foundations and added the wording standard AE St. Light poles.

- Section 1.9.1.1 Para A. - Meters, Metering Equipment, and Metering Services General – Requires that the customer furnish metering equipment. Revised that meter equipment be stamped AE not ALP.

- Section 1.9.1.1 Para B.: Revised working days from 5 to 3.

- Section 1.9.1.2 Para. A: Combined A&B paragraph and revised that the Customer shall furnish, install, own, and maintain metering equipment.
- Section 1.9.1.3 Para. A Exception revised parallel to multiple conductors

- Section 1.9.1.7: Identification of Customer Meter(s) - Revised label requirements.

- Section.9.1.8: Old Type, Damaged, and Obsolete Equipment- Revised to include Damage to CT's - VT's, Test switches, CT wiring and CT enclosures. Metering equipment or conduits/fittings that have excessive corrosion or damage.

- Section 1.9.1.9: Current Transformers (CT's) and Enclosures- Changed paragraph A to include minimum requirements for enclosures and moved table to paragraph B.

- Section 1.9.1.1.9 Para. C: Added requirement that CT's can not be mounted on wood.

- Section 1.9.1.1.9 Para. D: Added requirement that Service wire is to be routed through CT window.

- Section 1.9.1.1.9 Para. E: Requires no other wiring metered or unmetered will be permitted in the CT service enclosures, gutters or tap boxes.

- Section 1.9.1.1.9 Para. F: Revised such that enclosure can not be used as junction box.

- Section 1.9.1.1.9 Para. L: New requirement for CT metering when modifying or upgrading a service.

- Section 1.9.1.11 Application Table on the 120/240v only revised word from Parallel to multiple.

- Section 1.9.1.11 Table foot note 1: Requires Customer to furnish, own and install.

- Section 1.9.3.1 Para. A. Installation of Meters: Revised location and approval by Metering and Design.

- Section 1.9.3.1 Para. C.: Added with written approval not just approval and identifying requirements.

- Section 1.9.3.1 Para. G: New requirements for Meter installation in the interior of a building.

- Section 1.12.1 Para B: Network Transformer Vaults- Revised Customer load estimate requirements.

- Section 1.12.1 Para C: Revised location requirements.

- Section 1.12.1 Para D: Revised customer Plan approval process.

- Section 1.12.1 para E: Added requirement for copper bus bar entering the vault and measurements.

- Section 1.12.1. Para. F: Revised service point from property line to as determined by AE Network Design.

- Section 1.12.1 Para. J: Added by AE Network Design.

- Section 1.12.1 Para. K: Revised fire rated door requirements exterior and interior.

- Section 1.12.1 Para. O: Added AE Network Design.

- Section 1.12.2:- New Sub-surface Transformer Vault Requirements

- Section 1.14. : Miscellaneous – In This Section 1.14.2 for the AE’s Requirements for Distributed Generation Interconnection (under 50 kW) is move to a new section 1.15.0. Section 1.14.3 CAD Drawing Requirements is now Section 1.14.2. Section 1.14.4 is moved to Section 1.15.7- Metering to Measure Solar Energy Credits.

- Section 1.15.0: New Section for Distributed Generation Interconnection (less than 50 KW). This Section was revised completely.
- Section 1.15.7 Moved from 1.14.4 Footnote 2 is removed.

Appendix C – Revisions

- Figure 1-14: Added Pressure Treated Pole and bonding in footnote 6.
- Figure 1-15: a & b: Corrected this drawing it was incorrect showed underground detail instead of Overhead. Revised drawing to require a 6"x 6" mounting post instead of 4"x 4" mounting post. Revised Meter socket to be stamped AE instead of ALP.
- Figure 1-16a: Revised Meter socket to be stamped AE instead of ALP. Added bonding of ground.
- Figure 1-17: Revised Meter socket to be stamped AE instead of ALP. Added bonding of ground.
- Figure 1-18: Revised Meter socket to be stamped AE instead of ALP. Added bonding of ground. Added minimum service mast guy requirements new note #6.
- Figure 1-19: Revised Meter socket to be stamped AE instead of ALP. Added bonding of ground.
- Figure 1-20: Revised drawing to require a 6"x 6" mounting post instead of 4"x 4" mounting post. Revised Meter socket to be stamped AE instead of ALP.
- Figure 1-21: Revised Meter socket to be stamped AE instead of ALP. Added bonding of ground.
- Figure 1-22: Revised Meter socket to be stamped AE instead of ALP. Added bonding of ground. Added minimum service mast guy requirements new note #6.

- Figure 1-23: Revised Meter socket to be stamped AE instead of ALP. Added bonding of ground.

- Figure 1-24: Revised Meter socket to be stamped AE instead of ALP. Added bonding of ground in new note 4.

- Figure 1-25: Revised Meter socket to be stamped AE instead of ALP. Added bonding of ground in new note 4.

- Figure 1-26: Revised Meter socket to be stamped AE instead of ALP. Added bonding of ground in new note 9.

- Figure 1-27: Revised Meter socket to be stamped AE instead of ALP. Added bonding of ground in new note 9.

- Figure 1-33: Deleted drawing on clearance.

- Figure 1-34: Revised conductor clearance in accordance with NEC. Swimming Pools

- Figure 1-39A: Removed 5th terminal in meter drawing.

- Figure 1-39c Revised neutral wiring diagram.