RULE NO.: R161-19.09

NOTICE OF RULE ADOPTION **ADOPTION DATE: 03/06/19**

By: Jackie Sargent, General Manager
Austin Energy

The General Manager of Austin Energy has adopted the following rule. Notice of the proposed rule was posted on the 8th of January in 2019. Public comment on the proposed rule was solicited in the January 8, 2019 notice. This notice is issued under Chapter 1-2 of the City Code. The adoption of a rule may be appealed to the City Manager in accordance with Section 1-2-10 of the City Code as explained below.

A copy of the complete text of the adopted rule is available for public inspection and copying at the following locations. Copies may be purchased at the locations at a cost of ten cents per page:

Office of the City Clerk, City Hall, located at 301 West 2nd Street, Austin, Texas.

EFFECTIVE DATE OF ADOPTED RULE

A rule adopted by this notice is effective on March 6, 2019.

TEXT OF ADOPTED RULE

R161-19.09: Notice of Adoption to Section 1 in the Utilities Criteria Manual contains no changes from the proposed rule.

Summary of rule
Grammar and format corrections
Updated References
Spreadsheet "Summary of Changes" attached

SUMMARY OF COMMENTS

Austin Energy did not receive comments regarding Rule R161-19.09.

AUTHORITY FOR ADOPTION OF RULE

The authority and procedure for adoption of a rule to assist in the implementation, administration, or enforcement of a provision of the City Code is provided in Chapter 1-2 of the City Code. The authority to regulate construction is established in Chapter 15-9 and Chapter 1-2 of the City Code

APPEAL OF ADOPTED RULE TO CITY MANAGER

A person may appeal the adoption of a rule to the City Manager. **AN APPEAL MUST BE FILED WITH THE CITY CLERK NOT LATER THAN THE 30TH DAY AFTER THE DATE THIS NOTICE OF RULE ADOPTION IS POSTED. THE POSTING DATE IS NOTED ON THE FIRST PAGE OF THIS NOTICE.** If the 30th day is a Saturday, Sunday, or official city holiday, an appeal may be filed on the next day which is not a Saturday, Sunday, or official city holiday.

An adopted rule may be appealed by filing a written statement with the City Clerk. A person who appeals a rule must (1) provide the person's name, mailing address, and telephone number; (2) identify the rule being appealed; and (3) include a statement of specific reasons why the rule should be modified or withdrawn.

Notice that an appeal was filed and will be posted by the city clerk. A copy of the appeal will be provided to the City Council. An adopted rule will not be enforced pending the City Manager's decision. The City Manager may affirm, modify, or withdraw an adopted rule. If the City Manager does not act on an appeal on or before the 60th day after the date the notice of rule adoption is posted, the rule is withdrawn. Notice of the City Manager's decision on an appeal will be posted by the city clerk and provided to the City Council.

On or before the 16th day after the city clerk posts notice of the City Manager's decision, the City Manager may reconsider the decision on an appeal. Not later than the 31st day after giving written notice of an intent to reconsider, the City manager shall make a decision.

CERTIFICATION BY CITY ATTORNEY

By signing this Notice of Rule Adoption R161- 19.09, the City Attorney certifies that the City Attorney has reviewed the rule and finds that adoption of the rule is a valid exercise of the Director's administrative authority.

REVIEWED AND APPROVED

Jackie A. Sargent

Jackie Sargent, Director
Austin Energy

Date: 2-11-19

Anne L. Morgan
City Attorney

Date: 3/1/19

Design Criteria Manual 2017 - Summary Of Requested Changes From Previous Version			
Section	**Identifier**	**Draft 1 Changes**	**Department Requesting Change 1**
All		Change: Effective June 2019	Metering
All		Remove: Cost: $15.00. AE will no longer offer hard copies of the Criteria Manual, as it is available online for download and print.	Metering
All		ALL references in the DCM to ~~One Stop Shop~~ should be changed to Development Assistance Center, and ~~Permit Center~~ to Service Center	One Stop
TABLE OF CONTENTS			
1.3.0		Change 1.3.0 to BASIC REQUIREMENTS OF ELECTRIC SERVICE. Removed "CHARACTERISTICS".	Standards
1.4.12		Relocate Truck Access from 1.4.12 to 1.3.15	Standards
1.3.15		Inserted 1.3.15 Taxes.	Standards
1.3.16		Inserted 1.3.16 Truck Access, relocated from 1.4.12.	Standards
1.15.0		Changed from 1.15.0 to 1.14.3 Distributed Generation Connection. Removed "less than 50 kW".	Standards
1.15.1		Removed 1.15.1 Distributed Generation Interconnection Procedures. Moved content under new 1.14.3	Standards
1.1.0 INTRODUCTION			
1.1.0		Add: The AE Design Criteria is available online at no cost. Go to the website Austinenergy.com, then go to Contractors – Electric Service Design & Planning – "Download a free copy of the Austin Energy Design Criteria Manual (pdf)".	Metering
1.2.0 RELEVANT CITY OF AUSTIN BUSINESS OFFICES			
1.2.0		Update Phone Numbers: AE Public Involvement-512-322-6442; All Streetlights (North & South) Call 311; AE Complex Metering (includes CT Metering) 512-505-7068; Development Assistance Center (One Texas Center) 512-974-2632 or 974-9112; One Call-Call before you dig- Call 811	Work Management South
1.2.0		Update Phone Numbers & Titles: Work Management North,Civil Inspections North 512-505-7167; Work Management South,Civil Inspections South 512-505-7537; Civil Inspection Section (North & South Major Ductbanks) 512-505-7144	Standards
1.2.0		Update Phone Numbers & Titles: Permit & Inspections Center 512-978-4000; Remove: Permit & Liscence Center & Electrical Inpsections Section, as the numbers are no longer valid.	Standards
1.2.0		Remove: The ESPA form can be obtained from Austin Energy. Contact AE Design. Relocated to Section 1.4.3.1	Standards
1.2.0		Remove: AE Design Criteria can be purchased from Austin Energy. Contact AE Design. Will no longer be an option.	Standards
1.2.0		Remove: The AE Design Criteria is available online at no cost. Go to the Website Austinenergy.com. Relocated to 1.1.0	Standards
1.2.0		To help customers submitting requests (or on the AE webpage), Austin Energy now has 3 email addresses available for customer requests: aebspaespa@austinenergy.com – This is for submitting BSPA and ESPA forms to the One Stop Shop / Development Assistance Center. aeelectricspots@austinenergy.com – This is for requesting a Spot for a service location (Please include the property address & the Permit #). Within a couple days after the Electric Permit is pulled an Austin Energy Spotter will be out to spot the location of the service (permanent services only – AE does not spot temporary services). Please make sure all gates are unlocked or gate codes are provided (or access instructions) and all pets are put up, to avoid a $250 return trip fee being assessed to the permit (fee does not apply to new construction of homes or additions where the meter WILL BE located, where framing is not complete). aeelectricconduit@austinenergy.com – This is for requesting a conduit inspection (Please include the property address & the Permit #). Please make your requests using the appropriate email address as the mailboxes are monitored daily and gives us a record of your request.	One Stop
1.2.0		Update Phone Numbers & Titles: AE Complex Metering Operations – Add: Equipment Information, Ct Inspections, and Modular Metering 505-7045 Remove: AE Complex Metering Inspections 505-7068	Metering
1.2.0		Add email addresses to Spot & Conduit: aeelectricspots@austinenergy.com, aeelectricconduit@austinenergy.com	One Stop
1.2.0		Austin 311 now answers all Development Service Department questions etc. I have also forwarded this information out to my staff to verify changes. I looked through the log sheet and it looks good. I will be in the office all day on Friday so let me know what time works for you so we can walk through some of the information.	One Stop
1.3.0 CHARACTERISTICS/BASIC REQUIREMENTS OF ELECTRIC SERVICE			
1.3.0		Change: BASIC REQUIREMENTS OF ELECTRIC SERVICE. Propose delete "CHARACTERISTICS" from title for simplification.	Standards
1.3.6		NOTE: Easements are not normally required for secondary voltage facilities installed on the Customer's property for the exclusive purpose of providing electric service to the Customer.	PIRES

Table 1.3.7		Remove "See Note 4"; Add: Note 2: Where an Austin Energy transformer serves multiple meter banks, Austin Energy shall label secondary service conductors as the meter bank that it serves. Customer shall label secondary service conductors at the meter bank as the transformer that serves it. "This is a major issue with multi-story buildings with multiple meter rooms on multiple floors that are fed from multiple xfmrs. If we could get the AE crews and or the electricians to tag every service at the xfmr, PB, MH, and meter can, where ever the service goes, this would make AE's job much safer. If there is no ID tags installed, then no meter shall be set. This would enable AE to be much more accurate in GIS which in turn would make AE much more efficient on trouble shooting and reducing outages."	GIS
1.3.8		We will cross property lines with service if the appropriate easement(s) is/are put in place, even if it's not a unified development.	PIRES
1.3.8		Correct reference to Land Development Code from Definitions #77 to #78.	Standards
1.3.9		The Customer's main disconnect switch(es) shall be in accordance with latest version of City of Austin Electrical Code (Ordinance number 201111020-089). However, where the Customer is the only Customer served from a transformer, the meter and disconnect shall be located so that they are accessible from outside the Customer's building to AE personnel 24/7 by means of a customer provided lock box per AE specifications. The lock box shall contain a key or key fob for access to the customer's electrical meter room and/or gate(s). The lock box and meter/disconnect locations shall be clearly visable from transformer location.Add: Note: For meter room requirements refer to Section 1.9.3.2. Any deviation requires advanced approval from Complex Metering prior to construction. EXCEPTION: For 277/480V three-phase self-contained	
1.3.9		Add: For meter room requirements refer to Section 1.9.3.2. Any deviation requires advanced approval from Complex Metering prior to construction.	Metering
1.3.12	Line Extension Policy	Projects submitted to the Planning and Development Review Department before October 1st, 2014 will be subject to the line extension policy in effect at the time of submittal. Any changes to the site plan after the submittal will result in exclusion from the prior line extension policy and the site plan will be subject to the current line extension policy.	
1.3.12	Line Extension Policy (SMART Housing)	1.3.12 City ordinance provides an exemption for affordable housing. Customers seeking an exemption will need to provide Austin Energy with a SMART Housing Certification signed by the Neighborhood Housing and Community Development Department demonstrating that the Customer's premises meets City standards for affordable housing and stating the percent of residential development that will be considered SMART Housing. A waiver shall be applied such that the percent discount off of the cost to provide service to a residential development is equal to the percent of affordable housing (%CIAC Discount = %Affordable Housing), with the percentage of affordable housing being as stated on the City of Austin SMART Housing Certification.	
1.3.16 (Insert, Relocated from 1.4.12)		Relocate & Change: (Truck Access to AE Construction and Existing Facility Sites) Truck access to the site as required by the specific project shall be provided by the Customer with a minimum horizontal width of 12 feet and a minimum vertical clearance of 16 feet (or as required by AE Design). Where access to the construction site is by paved road or other prepared surface, the surface shall be capable of supporting, without damage to the road or surface, a total vehicle weight as designated by AE Design. Set-up area in front of equipment shall be a minimum space of 15 feet x 35 feet and a minimum vertical clearance of 20 feet (or as required by AE Design). See Section 1.10.0 for clearance requirements above and around equipment. Propose differentiating clearance requirements between "Truck Access" and "Set-up area". Change truck access to standard road clearances (16ft width & 16ft vertical). Add space requirement for set-up area in front of equipment.	Design South
1.3.3.1		**1.3.3.1 Network Area Vault(s)** On a single lot or tract of land Network Design will allow each building located on the same single lot or tract of land to house its own Network vault(s). This exemption does not apply to services that are 800AMPS or less of 120/208V that are located within the Network Area.	Network
1.4.0 REQUESTING/OBTAINING ELECTRIC SERVICE			
1.4.3.1		Add: The ESPA is available online at the website Austinenergy.com, then go to Contractors – Electric Service Design & Planning – "View and download the ESPA (pdf)".	Standards
1.4.3.1		For 'service only' requests (outside of the network area), the Customer should contact the Development Assistance Center, Online at www.austinenergy.com or the AE Design Lead for their area for Electric Service Planning Application (ESPA) approval and to determine service availability and service requirements (see Section 1.4.8).	One Stop
1.4.3.2.A		Remove: Information purposes only (Building/Electric Permit not required). Requires submission of ESPA only.	Standards
1.4.3.2.B		Change: Cost estimates or feasibility study requires submission of ESPA with a set of Customer drawings as required for adequate evaluation of request.	Standards
1.4.3.2.C		Change: Provide checklist showing what exactly are the steps & requirements to obtain a design. Wants it in a checklist format.	Standards
1.4.3.2.D		Change: Process for Obtaining Design	Design
1.4.3.2.D		Remove: See Section 1.5.0 for other information regarding electric service requirements and availability. See Appendix C - Exhibits for examples of various AE metering and service requirements.	Standards

1.4.3.2.D		Comment: Would like a checklist of what customer needs to do/provide to obtain a design.	Individual Developer
1.4.3.2		Remove: Step 1: Submission of an ESPA to AE Design ~~(or One-Stop Shop who will forward the ESPA to AE Design)~~ with a complete set of Customer drawings (see Section 1.4.3.3 including as a minimum a plot plan and a scaled elevation drawing for any structures that exceed a single story) for preliminary verification that the specific Customer infrastructure and/or electric service requirements requested in the ESPA	One Stop
1.4.3.3		Correct table reference from Table 1.14.3-B to Table 1.14.2-A	Standards
1.4.3.3		Add: The Customer is responsible for assuring that the project data supplied to AE is current throughout all of the project design phases. If the Customer has not provided the most up to date version of project data to AE, the project construction schedule could be negatively impacted.	Standards
1.4.3.3.A		Change: A utility design CAD file of the plans for the proposed site (see requirements below)(Smaller designs may only require a pdf or hard-copy plan, as required by Design).	Standards
1.4.3.3.C		Change: Scaled elevation drawing for any structures that exceed a single story.	Standards
1.4.3.3		Add: A utility design CAD file shall be submitted to AE Design on all projects that have been designed in a CAD environment.	Standards
1.4.3.3		Remove: A utility design CAD file must be submitted to AE Design on all projects that have been designed in a CAD environment. The Customer is responsible for assuring that the project data supplied to AE is current through all of the project design phases. If the Customer has not provided the most up to date version of project data to AE, the project construction schedule could be negatively impacted. AE acknowledges that the Customer has no responsibility for the accuracy or completeness of the data in the "as-built" stage of the electrical design.	Standards
1.4.3.3		Change: Corrected reference from Table 1.14.3-A to 1.14.2-A. (See DCM for other edits).	Standards
1.4.4		Remove: for a new electric service or electrical facility or any changes to a Customer's existing electric service or electrical facilities.	Standards
1.4.4		Add: The ESPA is also available online at the website Austinenergy.com, then go to Contractors – Electric Service Design & Planning – "View and download the ESPA (pdf)".	Standards
1.4.4		Remove: (See the Basic 'Service Only' Work Flow Process Chart in Section 1.13.0.) All other electric service ESPA requests detailing Customer's requirements for residential andcommercial service must be submitted to AE Design for approval (or One-Stop Shop who will forward the ESPA to AE Design). Submitting an electric service request ESPA form to AE Design for approval for new or modified electric service is not in itself an official request for that electric service. Approval of the ESPA by AE Design only denotes that AE can provide the desired service or service voltage and power capacity at the location requested. Customers who require a COA electrical inspection by the COA Electric Inspection section (for new electric service or changes to their existing electric service) must resubmit the ESPA to AE Design with the COA Building/Electric Permit Number. This resubmitted ESPA with the permit number then becomes the official request to AE for the installation of the new or modified electric service. (See the Basic Residential/Commercial Services Work Flow Process Chart in section 1.13.0.) For non-electric service ESPA requests, the Customer can submit a single ESPA request to AE Design for such things as information, cost estimates, or AE distribution system infrastructure expansions or modifications for subdivisions, developments, relocations, etc. (anything not requiring a COA Electric Permit). AE Design will determine feasibility, cost, and/or other Customer requirements and initiate design/construction process as required.	Standards
1.4.4		An AE-approved ESPA form is required before the COA ~~Permit and License~~ Service Center will issue a Building or Electric Permit for a new electric service or electrical facility or any changes to a Customer's existing electric service or electrical facilities. A copy of the ESPA form can be obtained at the ~~COA Permit & License Center~~ Online at www.austinenergy.com, from the ~~One-Stop Shop~~ Development Assistance Center, or from AE ~~Spots & Conduit~~. (See Section 1.4.3 – Electric Service Requests)//ESPA approvals for 'Service Only' ESPA electric service requests for residential and small commercial (no infrastructure construction required) can be obtained at the ~~One-Stop Shop~~ Development Assistance Center or by meeting the ~~AE Spots & Conduit representative at the job site,~~ through email submission to aebspaespa@austinenergy.com (See the Basic 'Service Only' Work Flow Process Chart in Section 1.13.0.) //For non-electric service ESPA requests, the Customer can submit a single ESPA request to AE Design for such things as information, cost estimates, or AE distribution system infrastructure expansions or modifications for subdivisions, developments, relocations, etc. (anything not requiring a COA Electric Permit). AE Design will determine feasibility, cost, and/or other Customer requirements and initiate design/construction process as required. Do we really want them submitting ESPAs for these things?	One Stop

1.4.8		ADD: Within 2 days after the Electric Permit is pulled an Austin Energy Spotter will be out to spot the location of the Point-of-Attachment (permanent services only – AE does not spot temporary services unless requested). Please make sure all gates are unlocked or gate codes are provided (or access instructions) and all pets are put up to avoid a $250 return trip fee being assessed to the permit (fee does not apply to new construction of homes or additions where the point-of-attachment WILL BE located, where framing is not complete).	One Stop
1.4.8.A		A. Contact AE Spot & Conduit Section for 'service only' requirements to provide electric service to four meters or less of single-phase 120/240V electric service of 350 amps or less or three-phase electric service of 350 amps / (See Section 1.4.9 for 'service only' to single-phase 120/240V electric service of 350 amps or more or to three-phase electric service of 350 ampere or more of combined main disconnect capacity as determined by the manufacturer's equipment rating or for all services of more than four meters.)	Metering
1.4.8.A.1		1. If the spot cannot be complete due to new construction or new addition framing, the Customer MUST contact the AE Service Spot & Conduit Section to request spotting of the ~~meter location and the service point of attachment location prior to beginning electrical work. Service Spot & Conduit will also provide the overhead service~~ Point-of-attachment for overhead services, and the meter and service point location for underground service laterals once framing is complete. The Customer MUST obtain this information before starting any electrical installation. The email addresses to contact Spots & Conduit are: aeelectricspots@austinenergy.com for Spots, aeelectricconduit@austinenergy.com for Conduit inspection.	One Stop
1.4.8.C		C. Determining Meter Location and Point of Service for 'Service Only' to Single Unit Residential and Small Commercial. (Single-phase 120/240V electric service of 350 amps or less or three-phase electric service of 350 amps or less of combined main disconnect capacity as determined by the manufacturer's equipment rating.)	Metering
1.4.8.E		E. Meter Equipment Installations. Prior to purchasing and installing any equipment, the Customer shall contact the AE Complex Metering Operation Section for approval of the service equipment. 1. Customer shall furnish, install, own, and maintain the following equipment: a. Transockets b. Ganged-meter socket assemblies (modular metering) c. Meter pedestals as described in Section 1.5.3.5 d. Self-contained meter sockets e. Hubs (overhead, self-contained meter sockets) f. One-, three-, or four-point racks (overhead) g. Closing plate (underground, self-contained meter sockets) h. AE Complex Metering Operations equipment (Current Transformers (CT), Voltage Transformers (PT's or VT Packs),T's and meter enclosures, Voltage Transformer (VT) enclosure, CT enclosure). NOTE: 1. Before starting any CT-rated service installation, the Customer should contact the AE Complex Metering Operations Section for additional information. 2. Austin Energy shall furnish, install, own and maintain the watt-hour meter devices.	Metering
1.4.9.D		Replace D 1 and 2 with: 1. Customer shall furnish, install, own, and maintain the following equipment: a. Transockets b. Ganged-meter socket assemblies (modular metering) c. Meter pedestals as described in Section 1.5.3.5 d. Self-contained meter sockets e. Hubs (overhead, self-contained meter sockets) f. One-, three-, or four-point racks (overhead) g. Closing plate (underground, self-contained meter sockets) h. AE Complex Metering Operations equipment (Current Transformers (CT), Voltage Transformers (PT's or VT Packs), meter enclosures, Voltage Transformer (VT) enclosure, CT enclosure). NOTE: 1. Before starting any CT-rated service installation, the Customer should contact the AE Complex Metering Operations Section for additional information. 2. Austin Energy shall furnish, install, own and maintain the watt-hour meter devices. (Also see Sections 1.9.0 and 1.15.0.)	Metering
1.4.9.E		Remove: or AE Complex Metering Inspections	Metering
1.4.11.B		Add: Austin Energy will provide one electric service point to each Multiple Mobile Vendor location, and individual meters can be established to each Customer at the location. One service can supply all vendors at that site. Sub-metering is allowed on the load side of the meter.	One Stop
1.4.11.E		Add: All mobile food vending must have a power supply off a ~~permanent~~ meter loop pole or shall have a separate metered service from a brick and mortar structure on the site. The existing service on a brick and mortar structure shall not be used to supply electric power to the mobile vending unit.	One Stop

1.4.12		Move section 1.4.12 (Truck Access) to directly after 1.3.14 (Front Lot Line Construction Requirement).	Standards
1.4.13		Comment: If these conductors are customer installed and customer owned, sizing the conductors for the rating of the equipment (disconnect) nameplate rating is not an NEC requirement.	Electric Board
1.5.0 TYPES OF PERMANENT ELECTRIC SERVICE			
1.5.1.4.B		Add: Any new service that falls within the network service area must be installed underground. The Customer shall furnish and install conduit and necessary conductors from the junction box, main switch, or metering enclosure to the service point as determined by AE Network Design. (Delete: The Customer shall furnish and install the necessary conductors from the service point location to AE's pull-box, service box, manhole, or vault. (The Network Design Section shall specify this location.) The Customer shall leave a 36-inch-minimum conductor tail extending from the top of the service box or pull-box. This sentence makes the term "service point" sound like the metering enclosure, junction box or main. Service point is the pull box or manhole. No need for (the deleted) sentence if "and necessary conductors" is used.	Design, Network
1.5.1.5.F		Comment: For this voltage and phase configuration, the NEC does not require the neutral to be full sized; it requires the neutral to be considered a current carrying conductor when the majority of the load consists of nonlinear loads, due to harmonics.	Electric Board
1.5.2		Add: N. For underground Customer-installed and -owned service installations NOT metered at the transformer, the meter(s) shall not be located more than 150 feet from the point of service. The service lateral shall not be installed under any building or other structure.	Metering
1.5.2.1.H		Comment: The ordinance shown is for the 2011 version; the City's current electrical ordinance is the 2014 edition.	Electric Board
1.5.2.1.E		Comment: ADD: Customer must obtain identifier ½ from addressing for all commercial Temp/Construction Power Loops prior to ESPA submittal	One Stop
1.5.2.1.M, 1.5.2.4.B.3, & 1.5.2.5.B.1.d		Comment: Remove limit on service length for customer-installed underground services. Let designers base service length on voltage drop.	Design South
1.5.2.1.O		Comment: The NEC allows copper or aluminum; depending on the service entrance conductor size, the minimum size service grounding electrode conductor, or main bonding jumper can be #8 A WG copper, or #6 A WG aluminum.	Electric Board
Table 1.5.2.2, Note 1		Comment: What would be the purpose of contacting the Electrical Inspection Section? AE would determine the available voltage and ampacity.	Electric Board

1.5.2.3.A.4.d		Change: d. A maximum length of 6 feet of service-drop conductors may pass over the roof of the structure being served, regardless of required height above roof and/or slope of roof	One Stop
1.5.2.3.A.4.h&i		Change: h. Service-drop conductors shall not pass within 5 feet, measured horizontally, ~~or over or under~~ any portion of a building or structure to provide service to another building or structure except as allowed in this Design Criteria. Additional clearances may be required as indicated in Section 23 of the NESC. Change: i. Service-drop conductors shall not pass within 5 feet, measured horizontally, or over or under signs, chimneys, billboards, radio and television antennas, tanks, and other installations not classified as buildings. Additional clearances may be required as indicated in Section 23 of the NESC.	One Stop
1.5.2.3.B & 1.5.3.3.D		Comment: The minimum service length drop needs to change back to 10' because at 5' it has caused continual issues for service trucks trying to hook up temp or perm services where AE may have facilities on the pole that cause conflict with a drop so close to the equipment on the pole.	Work Management South
1.5.2.3.C.3		Comment: Full current neutral (this term is used in severo/locations of the Criteria): The NEC does not require this, if the statement's intent is requiring the neutral to be the same size as the phase conductors.	Electric Board
1.5.2.4.A.2		All primary and secondary underground infrastructure conduit, in which AE installs AE conductors, shall be rigid metal or schedule 40 PVC. The conduit shall be limited to a maximum of four quarter bends (360 degrees total), between accessible pulling points (for example, transformer and pull-box). No heated bends are permitted.	Electric Board
1.5.2.4.B		Comment: An unwritten rule is to allow installer to encase Sch 40 conduit with sand and Sch 80 with native soil. Commercial secondary conduits have been sand encased regardless of conduit type.	Work Management South
1.5.2.4.B	5	Comment: Remove comments regarding customer owning or maintaining service boxes as AE is generally is the responsible party for replacing damaged lids or raising the pullboxes.	Work Management South
1.5.2.4.B		Comment: Provide clarification on the secondary riser requirements with regard to when a customer installs the box in their yard. Is it acceptable to allow the neighboring property to tap into this box even if the neighboring service runs in the other neighbor's yard?	Work Management South
1.5.2.4.B		Secondary Risers – Pull box is the AE point of service. Agreement to cross property lines with service lateral is between the property owners.	One Stop
1.5.2.4.B		The word "sand" is not in the AE Design Criteria. Sand requirement for conduit is stated at # 3 and # 21 of the General Conditions and depicted on the Civil Trenching detail.	One Stop
1.5.2.4 B.1		Comment: The COA Electrical Inspectors inspect based on the amended NEC. The NEC does not include installations under the exclusive control of the electrical utility (AE). If this installation is not under AE's exclusive control, my question would be, why does AE have requirements?	Electric Board
1.5.2.4 B.3		Proprose remove 150 foot restriction on customer installed services.	Design South
1.5.2.4 B.3		The Customer-installed service lateral conduit installed on the source side of the AE meter shall be run from the AE energy supply point to the closest point on the Customer's building or structure or equidistant (as designated by AE Design or AE Spots & Conduit) to a rack or pedestal (pre-approved by AE Design) suitable for mounting the riser conduit and AE meter base. The service lateral conduit shall be no more than 150 feet long and it shall not have more than a total of ~~270~~ 180 degrees of preformed bends.	One Stop
1.5.2.4.B.5		Comment: The NEC allows more than one circuit per conduit.	Electric Board
1.5.2.4B 7-a		Comment: underground conduit (24 inches miimum depth trench to the top of conduit below CURRENT grade)	Spotters
1.5.2.4 B 7-E		Junction boxes and wireways as per Service Distribution Enclosures (Tap and J Boxes) and Wireway Specifications in section 1.14.0. Tap boxes, junction boxes, service distribution enclosures, and wireways, ahead of metering equipment shall have a minimum of two 3/16-inch diameter holes drilled (or factory-installed provisions) for AE to install utility seals.	Metering
1.5.2.4.B.9		Comment: The NEC does not, in all cases, require the neutral to have a current carrying ampacity of the largest energized conductor; and this subsection is specific to past the service point. Should AE regulate past the service point (creates conflict with the electrical code)?	Electric Board
1.5.2.4.B.11		Comment: This subsection contradicts itself, and the NEC; it states, conductor sizes shall conform to the NEC and approved by the COA Electrical Inspection Section; then it states, minimum size service conductors for connection to AE facilities shall be #6 A WG copper or equivalent for commercial permanent services. There are cases in the NEC where the service conductors can be smaller than #6 A WG.	Electric Board
1.5.2.4.B.12		Comment: The NEC does not require service conductors to be consistent in size, type (copper or aluminum).	Electric Board
1.5.2.4.B.14		Comment: Customer installed, owned, and maintained service conduit and service lateral: why does AE regulate this? The second paragraph: if this relates to the possibility of deregulation, my experience has been, the requirements were not retroactive; what was existing prior to deregulation was allowed to remain.	Electric Board

1.5.2.5.B.1.a&b&d&e		Comment: Customer should never be able to "own and maintain" a 48-inch pull-box or any conduit or cable from pole to pull box. Propose remove "own and maintain" from references to pull boxes.	Design South
1.5.2.5.B.1.A		MAXIMUM ALLOWABLE CABLE BY THE CUSTOMERS: 1-500 MCM PER PHASE OR 2-4/0 AWG PER PHASE. SEE SECTION 1.5.2.5.B.1.A SECOND PARAGRAPH IN THE CRITERIA MANUAL, LATEST REVISION.	Design South
1.5.2.5 B.1.b		Comment: When using the electronic version of the DCM if you type the word "concrete" in it pops up a note to refer to the "general riser diagram in the appendix, page 36" only the diagram does not exist in the criteria manual any longer. The riser diagram now resides in the civil drawings provided by the designers to the customer for each job. Propose deleting references to "General Riser Detail" in the DCM.	Work Management South
1.5.2.5 B.1.d		Proprose remove 150 foot restriction on customer installed services.	Design South
1.5.2.5.		Secondary Risers – Pull box is the AE point of service. Agreement to cross property lines with service lateral is between the property owners.	One Stop
1.5.2.6 A		Comment: The NEC does not cover distribution and or metering under the exclusive control of the electrical utility (AE).	Electric Board
1.5.2.6.D.1.a		Remove: (See General Riser Detail in section Appendix C). The riser diagram now resides in the civil drawings provided by the designers to the customer for each job. Propose deleting references to "General Riser Detail" in the DCM.	Design South
1.5.2.6.D.1.e		Comment: Trench details are referenced on page 39, 1.5.2.6e, but are not provided in Appendix C. Deleted reference to trench details.	Work Management South
1.5.2.6.D.1.e		Comment: COA Electrical Inspection Section: utility metering is not covered in the NEC.	Electric Board
1.5.2.7.C.7&8		Comment: The NEC does not regulate utility metering, and utility equipment.	Electric Board
1.5.2.7.A.7		Comment: Does the NESC include requirements for facilities on the customer's side of the point of service?	Electric Board
1.5.2.7.C.7&8		Comment: The NEC does not regulate utility metering, and utility equipment.]	Electric Board
1.5.2.9		Comment:The NEC does not have a requirement for the customers' main service disconnect to be grouped with the utility meter; does not limit each occupant to one main service fused disconnect or breaker; and does not limit splices or taps to be made using terminal blocks only.	Electric Board
1.5.2.9.B.5.a		Comment: The electrical Inspections Section does not provide information and approve service distribution enclosure (size); the service distribution enclosure size is regulated by AE Design Criteria, Table 1.14.1, page 110.	Electric Board
1.5.2.9.B.5.b		Comment: This subsection, in part, states, the required number and size of service conductors, as per calculated load for entire building per the NEC,. In other sections of the Criteria the service neutral conductor is not allowed ta be sized per the NEC.	Electric Board

1.5.3.1.F		Comment: The subsection requires the service to be grounded/bonded in accordance with the NEC, however the exception requires a minimum size copper to be #6 A WG. In the NEC, depending on the service conductor size, the NEC will allow a minimum #8 A WG copper.	Electric Board
Table 1.5.3.3.C.2 (Chart also in Section 1.10.6)		Change: No more than 6 feet of service-drop conductors may pass over the roof.	One Stop
1.5.3.3.C.3.d		Change: A maximum horizontal length of 6 feet of service-drop conductors may pass over roof of structure being served, regardless of required height above roof and/or slope of roof. (Location must be accessible to AE personnel.)	One Stop
1.5.3.3.C.3.e&f		Change: e. Service-drop conductors shall not pass within 5 feet, measured horizontally, ~~or over or under~~ any portion of a building or structure to provide service to another building or structure. Additional clearances may be required as indicated in Section 23 of the NESC. Change: f. Service-drop conductors shall not pass within 5 feet, measured horizontally, or over or under signs, chimneys, billboards, radio and television antennas, tanks, and other installations not classified as buildings. Additional clearances may be required as indicated in Section 23 of the NESC.	One Stop
1.5.3.3.F		Tree Trimming. The Customer is responsible for all tree-trimming activities on the Customer's property required by AE to allow for the safe installation of new (or for Customer requested modifications to) electrical facilities by AE. The Customer shall not trim trees adjacent to AE energized facilities. If such trimming is required or deemed necessary, contact ~~AE Design or AE Spots and Conduit.~~ Tree Trimming (512) 322-6771	One Stop
1.5.3.4.A.4		Comment: Are we allowing service runs more than 150'? Section 1.5.3.4 A. 4. (p 53) says we do but does not specify what AE will require the customer to install. There is also verbage that allows for up to 200' so do we allow the customer to take service to 200' and charge excess facilities.	One Stop
1.5.3.4.A.5.e		Comment: Refers to 12" of separation between pipes, but I enclosed the construction standards which state 6" fill of sand for separation -why is there a difference? Needs to reflect same requirements.	Work Management South
1.5.3.4.B.2.a		Comment: Customer should never be able to "own and maintain" a 48-inch pull-box or any conduit from pole to pull box. Propose remove "own and maintain" from references to pull boxes.	Design South
1.5.3.4B2a		Add "An additional secondary pullbox past the pullbox at the base of the pole (maximum of 2 pullboxes) will be allowed where the maximum distance between pullboxes is 150 feet, the pullbox nearest to the customers' property is the service point, and the customer is responsible for pulling the wire from the service point (nearest pullbox) to the meter".	Design & Construction, North & South
1.5.3.4.B.2.b		Remove: (See General Riser Detail in section Appendix C). The riser diagram now resides in the civil drawings provided by the designers to the customer for each job. Propose deleting references to "General Riser Detail" in the DCM.	Design South
1.5.3.4		. AE-installed underground residential service lateral conductors shall be installed a maximum of 150 feet from the Customer's service equipment to AE's nearest designated service box, pull-box, or transformer. ~~AE Spots and Conduit shall determine the cost to the Customer for services over 150 feet but not over 200 feet for additional facilities, materials, and/or labor.~~ All services exceeding 200 feet shall be referred to AE Design for voltage drop and flicker calculations and determining the cost to the Customer.	One Stop
1.5.3.4		Secondary Risers – Pull box is the AE point of service. Agreement to cross property lines with service lateral is between the property owners.	One Stop
1.5.3.7.C		Comment: Customer installed, owned, and maintained service conduit and service lateral: Why does AE regulate this? The second paragraph: if this relates to the possibility of deregulation, my experience has been, the requirements were not retroactive; what was existing prior to deregulation was allowed to remain.	Electric Board
1.5.2.7.C.8		Remove customer maintenance of "AE metering equipment"	Complex Metering
1.5.3.7		Clarify, when serving multiple meter banks from one transformer and service wire is installed, request from South Construction is to energize "all or nothing" instead of energizing meter banks individually as customer builds and is permitted. Safety concern is that if energized, Construction would not know which meter bank is being energized.	Network
1.5.1.4		1.5.1.4 Underground 208Y/120V Service – RESIDENTIAL A. AE maintains a 208Y/120V, 4-wire underground electrical distribution grid in the Network Service Area (see the geographic map in section 1.12.0). Customers in this area requiring electrical service 800 amps or less of electric service demand might be attached to this electrical grid if capacity is available as determined by the Network Design Section. The majority of these service connections will be routed to Customers from the nearest electrical distribution grid access points which are located in the alleys and streets of the service area shown in Section 1.12.0. See Table 1.5.1.2 for electric service available in this area.	Network
1.5.1.4		1.5.1.4 - B. Any new service that falls within the network service area must be installed underground. The Customer shall furnish and install conduit and all necessary copper conductor from the junction box, main switch, or metering enclosure to the service point as determined by AE Network Design. The Customer shall leave a 36-inch-minimum copper conductor tail extending from the top of the service box or pull-box. The Network Design Section shall specify an exact length of copper conductor tails for manholes and transformer vaults.	Network

1.5.1.4		1.5.1.4 - D. Customer shall contact AE Complex Metering Operations or Inspections to request the spot location of metering equipment and other metering and meter location information.	Network
1.5.1.4		1.5.1.4 - E. Neutral copper conductors of 3-phase, 4-wire wye-connected services shall have the full-current carrying capacity of the largest energized conductor from the Customer's service point to the Customer's service disconnect(s) at the service equipment. The neutral copper conductor must be properly marked and grounded.	Network
1.5.1.5		1.5.1.5 Underground 208Y/120V Service – COMMERCIAL - C. The Customer shall furnish, install, own, and maintain the necessary copper conductors from the service location to AE's pull-box, service box, manhole or vault. The Network Design Section shall specify this location. The Customer shall furnish enough copper conductor length to extend out of the top of the service box or pull-box to a minimum of 36 inches above the lid. The Network Design Section shall specify an exact length of copper conductor tails for manholes and transformer vaults. AE shall make all necessary terminations between the Customer's and AE's conductors.	Network
1.6.0 STREETLIGHTING AND OUTDOOR LIGHTING			
1.6.4		Remove: AE no longer charges per-lot streetlight fees for recovery of CIAC, as they are now included in the total CIAC costs. Remove reference to per-lot streetlight (installation) fees.	Design
1.6.4		Streetlights in New Residential Subdivisions IN Austin's City Limits Inside and Outside Austin Energy's Service Area The developer of a new residential subdivision within COA shall pay streetlighting fees according to the Land Development Code Section 25-4-199. AE shall use the fees for the installation of streetlights in the residential area of the subdivision for which the fees were paid. The fees will be reviewed on an annual basis and are subject to change.	PIRES
1.7.0 TEMPORARY POWER			
1.7.1.4.C		Comment: Wrong department shown.	Electric Board
1.7.1.4.D	Temporary Power Designation	Remove 480V option for temp power. Requires a vault, and customers are trying to use other building's transformers, which puts AE in a bind when the building needs an outage.	Network Design
1.7.2.D (chart)		Comment: The minimum service length drop needs to change back to 10' because at 5' it has caused continual issues for service trucks trying to hook up temp or perm services where AE may have facilities on the pole that cause conflict with a drop so close to the equipment on the pole.	Work Management South
1.7.1.4		1.7.1.4 Temporary Power Designations - D. Network. For temporary power in the Network area, contact Network Design. Temporary power can be provided at 216 volts up to a maximum of 800 amps only if a Network power source is readily available.	Network
1.7.3.B		B. When connected to underground facilities, the temporary loop shall be installed within 1 foot of an underground service box ~~specified by AE Design or AE Spots & Conduit~~ and have the service address clearly marked on the meter loop, meter pole, and/or meter pole braces.	One Stop
1.8.0 CUSTOMER ELECTRIC EQUIPMENT REQUIREMENTS			
1.8.4		Comment:The City's Electrical Code, which includes the NEC as amended by the City, does not require the customer's main service disconnect to be located next to the meter.	Electric Board
1.8.4		ADD: states that a main disconnect is needed on services (only 6 breakers as the 6 disconnect rule)	One Stop
1.9.0 METERING			
1.9.1.B		Change: The Customer shall allow up to five (5) working days for the installation of the AE Complex Metering Operations equipment by AE after final inspection is approved by the AE Complex Metering Operations Section.	
1.9.1.1.A		Remove: Customer shall furnish, install, own, and maintain metering equipment of the proper type and capacity for measurement of Customer's electrical power consumption. Where more than a watt-hour meter is necessary to measure electrical power consumption, the Customer shall furnish the appropriate metering equipment. The Customer shall furnish and install all meter sockets, S-1 socket enclosures, and current transformers (CTs) for permanent installations. AE meter socket shall be identified by "AE" stamped into the metal of the meter socket. The Customer shall furnish, install, own, and maintain meter sockets, approved by the AE Complex Metering Operations Section, for temporary meter loops. The Customer shall furnish, install, own and maintain meter pedestals when required, transockets, ganged meter socket assemblies (modular metering), and CT enclosures approved by the AE Complex Metering Operations Section. The responsibility of the Customer is to furnish, install, own and maintain enclosures, junction boxes, wireways, connectors, conduit and fittings, and other miscellaneous materials. This equipment shall conform to the installation requirements of the Austin Energy Design Criteria and NEC.	Metering
1.9.1.1.A		Add • The Customer shall furnish and install all meter sockets, S-1 socket enclosures, and current transformers (CTs) for permanent installations. AE meter socket shall be identified by "AE" stamped into the metal of the meter socket. • The Customer shall furnish, install, own, and maintain meter sockets, approved by the AE Complex Metering Operations Section, for temporary meter loops. • The Customer shall furnish, install, own and maintain meter pedestals when required, transockets, ganged-meter socket assemblies (modular metering), and CT enclosures approved by the AE Complex Metering Operations Section. • The responsibility of the Customer is to furnish, install, own and maintain enclosures, junction boxes, wireways, connectors, conduit and fittings, and other miscellaneous materials. This equipment shall conform to the installation requirements of the Austin Energy Design Criteria and NEC.	Metering
1.9.1.2.A.2		Remove "2. Type 200-S meter socket (single-phase, residential only)"	Metering

1.9.1.2.A.3		Remove "commercial" from "3. Type 200-S meter socket (single-phase, commercial)"	Metering
1.9.1.2.A.4		Add "5. Type 320-SLR meter socket (120/240vV, 120/208v) (3 wire single-phase)"	Metering

1.9.1.2.A.5		Add "Type 320-SLR meter socket (120/240v, 120/208v, 277/480v) (4 wire three- phase)"	Metering
1.9.1.2.A.6		6. Type Instrument Rated (IR) meter socket enclosure (for instrument rated services)	Metering
1.9.1.2.A.7		Add "Current transformers (CTs)(All window, bushing, and bar type).	Metering
1.9.1.2.A.8		Add: "9. Voltage Transformer Packs"	Metering
1.9.1.2.A.8		Add."10. Voltage Tranformer Enclosure"	Metering
1.9.1.2.B.2		Remove "Voltage Transformers". Add "Metering Cable (For IR installations only)"	Metering
1.9.1.7		Add "Tagging Requirements: Cable shall be tagged between the property service point and the internal meter room to identify the (apartment number? Condominium unit? Customer identification? – and where should the tag be located – where the cable enters the building? Backside of the meter?)." To aid AE Service personnel in identifying and following cable to the meter where meters are located internally to the buildings (meter rooms).	GIS
1.9.1.7		Remove "or engraved plaque". Add "Engraved Plaques are acceptable however the print shall be 2" in height minimum. The Plaque will need to be either white lettering on a red background or white lettering on a black background ."	Metering
1.9.1.7		"For more than one meter" replace "For one or more meters"	One Stop
1.9.1.7		Remove "in permanent paint, weather proof ultra-violet inhibited acrylic adhesive permanent labels, or engraved plague 2 inches in height". Add "as per the above bullet specifications of 1.9.1.7".	Metering
1.9.1.8		~~A. The meter seal is broken to perform electrical work. C. Meter socket is damaged and cannot be resealed. E. Metering equipment or conduits/fittings that have excessive corrosion or damage. F. Meter blocks are damaged, burned, missing, and such.~~	One Stop
1.9.1.8.C-J		Add "If the integrity of the service has been changed such as modification from the originally designed system to the service. (i.e. Solar)" and "Service is to be final or has been de-energized for non pay and no disconnect is presently located either outside the building or within 25 feet of the outside door.".	Metering
1.9.1.9		Add "A. When a Customer's service size exceeds 350 amps, the customer shall use an AE approved Transocket (for 120/240v single phase or three phase and 120/208v services) (Exception: For 277/480v services use conventional style installations (separate Ct enclosure, and meter socket) for three-phase or 350 amps for 120/240V single-phase, B. When the service size exceeds 600 amps the customer shall contact AE Complex Metering Operations Section so that a representative can determine the capacity and type of CTs to be used. The following requirements apply to the installation and use of CTs and enclosures: 1. AE Minimum requirements for CT enclosure types as per listed below. a. Enclosure type NEMA 3R Hoffman type or equivalent with CT mounting bar or plate that will accommodate either horizontal or vertical mounting. Front cover of the enclosure shall be removable with provisions for pad locking. All manufacture provided hardware shall be installed. • Enclosures that have hinges shall have manufacture door stop kit installed and have provisions for padlock and will need to be approved by the AE Complex Metering Operations section prior to purchasing."	Metering
Table 1.9.1.9.B		Changed 226-800 to 400–800.	Metering
Table 1.9.1.9.B		Change 801-1200 to 600-1200.	Metering
1.9.1.9.I		Add I. The conduit from the CT enclosure to the meter enclosure shall be rigid metal, EMT or Schedule 80 PVC conduit. It shall have a 1-1/4-inch minimum to 1 1/2 inch maximum inside diameter and a minimum length of 4 inches and a maximum length of 40 feet.	Metering
1.9.1.9.L		L. When using a Transocket for 277/480v, the 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 building ground or a driven ground run inside conduit only, not external to either enclosure	Metering
1.9.1.9.I, Note		Add: For runs greater than 40 feet, contact the AE Complex Metering Operations Section.	Metering
1.9.1.9.K		Add K. There shall be a #6 AWG copper conductor for case grounding,from the CT enclosure to the meter enclosure. This ground must be connected to the building ground or a driven ground run inside conduit only, not external to either enclosure.	Metering
1.9.1.9.N		Remove "A transocket may be used instead of conventional CT metering. Contact the AE Complex Metering Inspections Section for information and approval prior to purchasing and installation."	Metering
1.9.1.9.O		Remove "A transocket may be used instead of conventional CT metering. Contact the AE Complex Metering Inspections Section for information and approval prior to purchasing and installation."	Metering
1.9.1.9.Q		Add "All conductors shall be phased on both sides of the current transformers (CT's) unless color coated wire is used."	Metering
1.9.1.9.R		Add "All conductors shall be phased on both sides of the current transformers (CT's) unless color coated wire is used."	Metering
Table 1.9.1.11		Remove "200S (Residential only)" row.	Metering
Table 1.9.1.11		For 320-SLR-Application-Phase, replace "single" with "All". Change 350 to 400 and 500 to 600.	Metering
Table 1.9.1.11		Change S-1 to Instrument Rated Meter (IR) Sockets	Metering

Table 1.9.1.11, Notes		Remove reference "Furnished, owned and installed by Customer"	Metering
1.9.2.B.1		30-inch-wide front working space ~~with a minimum 6 inches on each side~~	One Stop
Table 1.9.2.C		Remove 200-S Residential Only and "Commercial".	Metering
1.9.3.1.A.2		Add 2. Under overhangs (overhead services only), carports, or similar structures that exceed 72 inches.	Metering
1.9.3.1.A.4		Add: Within a circle radius of 4 feed of of gas meters, regulators, relief valves, and electrical apparatuses.	One Stop
1.9.3.1.B		Add It shall be the Customer's responsibility to see that the meter location remains the same as constructed and to keep the area below and in front of the meter location clear of debris such as: refrigeration equipment, trash boxes, landscaping, or any other obstruction that would affect the access and safety of AE personnel working on the equipment.	Metering
1.9.3.2.B.1		Add: Meter rooms located on a first floor or basement level shall have access from a door located on the building exterior wall opening directly into the room or, when approved by the Department, from a door opening directly into the room from a public area or hallway. Where a second access door is provided, the door shall not exit into any occupancy. The door to the room shall be within line of sight of the nearest AE transformer within 125 feet.	Metering
1.9.3.2.D.1		Add: When the meter room is to be locked, the customer shall install a lock-box in a permanent location on the meter room door, or in a readily accessible location adjacent to the meter room door. Customer will supply the lock-box as per 1.9.3.1 D.	Metering
1.9.3.2.D.2		Add: The customer will provide a key for the meter room door lock to be housed in the lock-box before the electric service will be energized. The key will be used for access by the AE personnel only.	Metering
1.9.3.2.G.1&2		Add: 1. The customer shall conduct a pre assessment of communication signal strength through AE's AMI network provider. The customer shall purchase, install and maintain any and all communication equipment required by the meters for to communicate to AE's AMI network provider. Add: 2. The customer shall purchase, install and maintain any and all communication equipment required by the meters to communicate to AE's AMI network provider.	Metering
1.9.3.3.A		Add Meter sockets, transockets, meter enclosures, Voltage Transformer enclosures, and CT enclosures shall be securely mounted level and plumb on the exterior finished surface of the building or structure, using only the mounting holes provided. Where meter sockets, transockets, meter enclosures, Voltage Transformer enclosures, and CT enclosures are attached to masonry or concrete walls, approved expansion bolts or anchors shall be used. Wood plugs or plastic anchors are not acceptable.	Metering
1.9.3.3.B		Add The meter socket should be mounted on the exterior finished surface of a building or structure and within line of sight of the nearest AE transformer.	Metering
1.9.3.3.C		Service conduit shall be exposed on the exterior finished surface of the building or structure. When running conduits into the meter enclosure, run the conduit into the factory-punched knock-outs only. Do not cut any holes in the meter enclosure. If holes are cut in the meter enclosure, AE will consider it damaged and will not approve the installation. AE will require the damaged enclosure to be replaced with a new one at the Customer's cost. Resealing the holes will not be acceptable.	Metering
1.9.3.3.D		'Identification of Customer's Meters' according to Section 1.9.1.7 is required for all meter installations. When desired, meter sockets, transockets, and enclosures may be painted for aesthetic purposes.	Metering
1.9.3.4.A		Add A. Where two or more meters are installed at one location and served from one set of service conductors, a service distribution enclosure (SDE), junction box, or wireway shall be used to connect the enclosures or sockets.	Metering

1.9.4.2		Replace: COA Electrical Inspection Section w. AE Complex Metering	Electric Board
1.10.0 CLEARANCE AND SAFETY REQUIREMENTS			
1.10.2.A		Change: The operation of equipment such as a crane, derrick, drilling rig, hay loader or similar equipment—any part of which is capable of vertical, lateral, or swinging motion—is forbidden by law to operate within 20 feet, any direction, of live overhead high-voltage lines. Contractors and owners (not AE) are legally responsible for safety of construction workers under this law, which carries both criminal and civil liability. (Per new OSHA requirement.)	Design South
1.10.2.B		Change: "at least 72 hours before"	Design North
Table 1.10.4, Note 3		Change: AE may provide electric service from niches accessible from outside of but located within the footprint of the Customer's building or structure. Niche service requires that all AE equipment be totally accessible by truck or other suitable AE equipment for installation, operation, and maintenance purposes. Clearance requirements around the equipment shall be the same as for a standard service, with a minimum 20-foot vertical clearance inside the niche and niche entrance (or as required by Design). All walls of the niche shall have a minimum 3-hour fire wall and be properly ventilated (or as required by Design). The entrance and area in front of the equipment shall remain free and clear as per standard services. All other requirements are as per standard services. Propose removing "vaults" unitl the distribution vault construction standards are finalized. Change vertical requirement from 35ft to 15ft, as per recent installations. Reference standards services for all other requirements.	Design South
1.10.5.A (Table)		Change: Measured both horizontally and vertically from AE's underground facilities (cable, conduit, duct structure, pull-boxes, and such) to other utilities other than gas lines, fuel lines, or steam lines. Joint trench is permitted with other utilities only by written agreement with AE.* 36-inches minimum: Measured both horizontally and vertically from AE's underground facilities (cable, conduit, duct structure, pull-boxes, and such) to gas lines, fuel lines, or steam lines. ** *Requires 2-in concrete encasement of AE conduit for 24 inches on both sides of crossing when AE conduit is installed above the other utility conduit. **Requires 3-in concrete encasement of AE conduit for 36 inches on both sides of crossing when AE conduit is installed above the other utility conduit.	One Stop
1.10.6.1		Change: The minimum service length drop needs to change back to 10' because at 5' it has caused continual issues for service trucks trying to hook up temp or perm services where AE may have facilities on the pole that cause conflict with a drop so close to the equipment on the pole.	Work Management South
1.10.10.3		It is permissible to install landscaping in utility easements if such landscaping does not restrict AE personnel and equipment access to distribution electric lines or equipment or conflict with other utility equipment. AE reserves the right to remove any obstruction without fault. See other clearance requirements in this section. For sodding or filling, see Item 1.10.10.1 above.	
1.10.10.3		For shrubbery, see 1.10.4 and 1.10.10.2 for minimum clearances required around all padmounted equipment, pedestals, subsurface AE vaults or manholes that require personnel access. Trees should be planted (a minimum of ten feet **for tree species not listed as Utility Compatible in Appendix F of the City's Environmental Criteria Manual**) far enough away from any easements (such as overhead lines, underground facilities, or padmounted facilities) so that when the trees reach maturity, overhanging branches will not obstruct access to AE facilities for maintenance or replacement of AE facilities. (See www.austinenergy.com/go/trees or follow the Customer Care, Other Services, Tree Pruning, and AE Replacement Trees plus other helpful links.) **If a root barrier a minimum of 48 inches deep is installed at least 5 feet from underground electric facilities , tree species not listed as Utility Compatible in Appendix F of the City's Environmental Criteria Manual may be planted within 10 feet of underground electric facilities, provided access to those facilities is not obstructed. Utility Compatible tree species may not be planted within 5 feet of underground electric facilities but may be planted under overhead electric lines, provided access to the poles is maintained.** Where the Customer installs landscaping in or trees near a utility easement (or AE facilities) such that additional upkeep, maintenance, or other costs are incurred by AE, the Customer or owner shall pay these costs. In addition, a License Agreement must be obtained from and filed with AE Public Involvement before installing any landscaping that might in any way obstruct AE's access to existing or future AE facilities located within the easement.	
1.11.0 GLOSSARY			
1.11.3		Point of Attachment (POA) – the physical location where AE will attach our infrastructure conductors (service conductors) to the customers structure or meter loop pole attachment.	One stop

1.12.0 NETWORK TRANSFORMER VAULTS			
1.12.1.B	General Requirements for Transformer Vaults	Load. The CUSTOMER shall provide an initial estimate of the total connected load and requested voltage for the proposed project as early in the planning stages as possible to AE Network Design. AE must be informed of any changes during the planning stages that would increase or change the initial estimated load. Customer shall provide an ESPA form to AE Network design when the final voltage and load is calculated. The Customer should also provide foreseeable future expansions load information in addition to the initial load calculations. Any deviation from the original signed and approved ESPA form that would require the re-submittal of the ESPA could result in additional Fee at the Customer's expense.	Network
1.12.2.A		Change: Austin Energy service and emergency response vehicles must be provided 24-7 access to the electrical vault from a parking garage. To accommodate these vehicles, driveway lanes from garage entrance and exit to vault doors shall maintain a minimum clear height of 8'-2" from finished floor to any structure above (i.e. beams, plumbing, conduits, signage, sprinklers, etc.). Austin Energy must be provided a dedicated and marked "Austin Energy Parking Only" parking space within 20' of the vault doors.	Design, Network
1.12.2.E		Add: No vault shall be more than 20' from finished grade at the lift out panels to the finished floor.	Design, Network
1.12.5, drawing		Change: Network Map to go down to River Street. Change area (West of Rio Grande & North of 24th) from Network to North Design (see latest sharepoint map).	Design, Network
1.12.0.N		1.12.0 NETWORK TRANSFORMER VAULTS - N. Vault Floor. The vault floor and supporting underlying structure shall be designed to bear the weight of all transformers, network protectors and other required electrical equipment. The transformer/equipment landing /approach area shall be an extension of the vault floor with a smooth trowel finish with no expansion joints in floor – NO PAVERS PERMITTED. Upon receiving the preliminary electrical load calculations, AE shall provide the Customer with the required number and size of transformers. AE Network Design will provide transformer maximum weights for vault design purposes.	Network
1.12.0.O		1.12.0 NETWORK TRANSFORMER VAULTS - O. Walls. The vault room and ceiling shall be solid in construction and have a minimum of three-hour fire rating. CMU walls must be concrete filled. No wall board (sheet rock) construction is permitted on interior walls of vault. No lights, switches, elec. conduit, junction boxes, ventilation, sprinklers, alarms, heat, smoke or fire sensors, etc. are permitted. Lighting installation is the responsibility of AE. The customer shall paint the inside of the vault white semi-gloss.	Network
1.12.0.S		1.12.0 NETWORK TRANSFORMER VAULTS - S. Customer shall contact AE Complex Metering Operations or Inspections to request the spot location of metering equipment and other metering and meter location information.	Network
1.12.0.B		B. Load. The CUSTOMER shall provide an initial estimate of the total connected load and requested voltage for the proposed project as early in the planning stages as possible to AE Network Design. AE must be informed of any changes during the planning stages that would increase or change the initially estimated load. Customer shall provide an ESPA form to AE Network design when the final voltage and load is calculated. The Customer should also provide foreseeable future expansions load information in addition to the initial load calculations. Any deviation from the original signed and approved ESPA form that would require the re-submittal of the ESPA could result in additional Fee at the Customer's expense.	Network
1.12.2		1.12.2 Sub-surface Transformer Vault Requirements In addition to the General requirements contained in Section 1.12.1, the requirements listed below shall also be required for Austin Energy to safely and reliably provide electric service from subsurface vault structures. Note for maximum Depth. 1. No vault shall be more than (20??)18' from finished grade at the lift out panels to the finished floor.	Network
1.12.2.D		Change: The lift-out panels shall not be located over any part of the vault room area as stated above in Section 1.12.2 (B). The lift-out panels shall be designed to Austin Energy requirements. No awning overhangs, protruding signs, decks, ETC shall be permitted within 35' above the lift-out panels. A Bilco 30" x 30" lid floor door shall be installed according to all applicable national standards.	Network
1.12.2.F		Change: An OSHA approved galvanized personnel ladder extension shall be installed by the Customer from the Bilco 30" x 30" lid to the electrical vault floor. The ladder is to be constructed and installed according to all applicable national standards. October 2015 Austin Energy Design Criteria Austin Energy - All Rights Reserved 103	Network
1.12.2.N		ADD: N. Customer shall contact AE Complex Metering Operations or Inspections to request the spot location of metering equipment and other metering and meter location information.	Network
1.12.2		Each building to house its own vault room in the event one structure got sold or demolished. Ideally we would like to centralize the vault room within each structure	Network
1.13.0 WORK FLOW PROCESSES			
1.14.0 MISCELLANEOUS			
1.14.3		Removed: Distributed Generation Interconnection (less than 50 KW)	Standards
APPENDIX C – EXHIBITS			
1.15.0 APPENDIX C	APPENDIX	1.15.0 APPENDIX C changed to 1.16.0 APPENDIX C	
Figure 1-10		Remove: Current Transformer Enclosure (drawing). Deletes due to galvanized cans will no longer be allowed.	Metering
Figure 1-11A		Add: S-1 Socket Enclosure (Typical Installation for Pad-Mounted)	Metering
Figure 1-11A		Drawing Change: Transformer pad shows six (6) secondary conduits. Should show ten (10). (CHANGE DRAWING)	Design North

1.15.0 APPENDIX C - Exhibits		Change: Figure 1-11A. S-1 sSocket Enclosure (Typical Installation).....6 To: Figure 1-11A. Instrument Rated (IR) meter socket Enclosure (Typical Installation).....6	Metering
Figure 1-15A		Meter Loop for Permanent Overhead Service Installation (Residential-Typical Installation) pg.10 Appendix C Delete 6" pressure treated post and require minimum 4"X4" galvanized steel pole (wooden poles will not be accepted) 20ft minimum length	One Stop
Figure 1-16A		Meter Loop for permanent Underground Service Installation (Residential/Commercial- Typical Installation) pg.12 Appendix C Delete 4"X4" Pressure Treated Pole and require minimum 4"X4" galvanized steel pole, (wooden poles will not be accepted) Delete 2"X4" Pressure Treated Wood and require minimum 1 ½" steel channel (wood will not be accepted)	One Stop
Figure 1-23		Comment: Below the title, this statement is made: THROUGH ROOF SERVICE MAST INSTALLATION, but this is for an underground service installation.	Electric Board/One Stop
Figure 1-24		Two-Meter Permanent Overhead Installation (Typical Installation)	
Figure 1-25		Two-Meter Permanent Underground Installation (Typical Installation)	
Figure 1-26		3 to 12 Meters for Permanent Overhead or Underground Installation (Typical Installation)	
Figure 1-27		Change height to 72" Max, 30" Min.	CMO
Figure 1-27		13 to 18 Meters for Permanent Overhead or Underground Installation (Typical Installation) Makes a reference to the table "Junction Box and Wireway Specifications" that does not seem to exist in the Appendix. It should refer to 1.14.1 Distribution Service Enclosure (Tap Box, Junction Box) & Wireway Specification	One Stop
Figure 1-37B, 1-38B		PULL BOXES - 18" service box to be used for secondary and services – 4-3" conduit Max penetrations – wire size, 4/0Triplex or less. - 36" pull box to be used for 1Ø Primary, secondary and services - 10 Max penetrations. - 48" pull box to be used for 3Ø & 1Ø Primary, secondary and services - 12 Max penetrations.	Design South