



PROCEDURE:

T&D 20422 013 URACD DISTRIBUTION PROCEDURE

TITLE:

Underground Electric Distribution Systems for Developments

DATE CREATED: 10/01/85

REVISED: 10/14/14

OBJECTIVES:

- to provide uniform procedures for the installation of Underground Electric Distribution Systems
- to define the responsibilities of all involved parties
- to stipulate apportionment of costs

ASSIGNMENT OF RESPONSIBILITY:

- The Director, Transmission and Distribution (T&D) Projects, or his/her designee shall have the responsibility to establish, maintain, and disseminate this procedure and any attachments to this procedure.

DEFINITIONS:

- **Arterial Highway:** A street having no contiguous fronting Development or Electric Services. This includes, but is not limited to:
 - a street situated within a Development that is primarily used to provide ingress/egress to and from the internal roads of the Development
 - platted or unplatted roads
 - a street that is being built off-site
- **Blanket Easement:** An easement over the total Development that allows JEA to install, operate and maintain JEA underground facilities.
- **Commercial Area:** Stores, recreation areas, laundry facilities, sewer/water stations, pumps, pools and other similar facilities which are installed in conjunction with URD and UAD systems.
- **Conduit System:** The conduit system necessary for the Underground Electric Distribution System and which consists of any combination of duct, conduits, conduit markers, manholes, handholes, vaults and associated surface mounted equipment as prescribed by JEA.
- **Contribution-In-Aid-Of-Construction (CIAC):** A charge to customers, developers, or government agencies to recover a portion of the cost associated with extension/additions, modifications or upgrades to the distribution system.
- **Developer:** Any person or group subdividing any parcel of land.

- **Development:** Any parcel of land being subdivided into lots or tracts for purposes of resale or rental, or any parcel of land identified by Governmental Policy as a Development such as the City of Jacksonville "Land Development Procedures Manual" which identifies "Platted Roads" as Developments. Developments may be, but are not limited to, mobile home parks, apartment complexes, single family residential developments, duplex, triplex, or quadraplex developments, zero lot-line developments, business and/or industrial developments, commercial office parks, shopping centers, etc.
- **Feeder:** Primary voltage electric distribution system conductors larger than 1/0 Aluminum. Feeders are necessary when a single Development or a group of Developments are configured and sized such that 1/0 Aluminum conductors are not sufficient to carry the anticipated load or to provide the necessary customer reliability.
- **Governmental Policy:** Any Policy of the City of Jacksonville, and/or its divisions and agencies or the controlling governmental agency where the development is located.
- **JEA** - The electric, water and sewer utility serving within and without the City of Jacksonville, as defined in Article 21 of the JEA Charter and Chapter 92-341k, Laws of Florida, as amended, or its duly authorized representatives.
- **Non-Standard Service Revenue Allowance (NSRA):** An allowance of 3 times monthly non-fuel revenue for all rate classes, which can be used to offset CIAC material cost for non-standard service additions (such as UG extensions/additions, dual transformers, or other deviations from JEA specifications).
- **Secondary Main:** Underground secondary conductors to provide a source for more than one secondary service.
- **Secondary Service Lateral:** The underground service conductors and conduit between the JEA's transformer or Secondary Main and the first point of connection to the customer's service entrance in any terminal box, meter socket or other approved enclosure inside or outside the customer's building wall.
- **Single Family Residential Unit:** A building consisting solely of one dwelling unit which stands alone or which is cut off from adjoining structures by four-hour rated fire walls with all openings therein protected by approved fire doors.
- **Standard Service Revenue Allowance (SSRA):** An allowance of 30 times annual non-fuel revenue for residential and 4 times annual non-fuel revenue for non-residential customers, which can be used to offset CIAC cost for standard service additions.
- **Specific Easement:** An easement (usually outside the public right of way) for a particular structure or device.
- **Temporary Service:** Electric service for construction or other temporary purposes only.
- **Underground Commercial Development (UCD):** An Underground Electric Distribution System where each Secondary Service Lateral supplies one or more commercial services. Business and/or industrial developments, commercial office parks, shopping centers, and arterial highways (not part of a URD or UAD) may qualify as a UCD.
- **Underground Electric Distribution System:** An Underground Electric Distribution system where the distribution lines are installed below final grade. This includes the Conduit System, Primary and Secondary Main conductors including splices, and terminations. Some electric distribution facilities such as, but not limited to, transformers, switching and protective devices, equipment pads, pedestals, and other accessories, are installed above ground. Feeders may be required as determined by JEA for load or reliability requirements.

- **Underground Multi-Family Developments (UAD):** An Underground Electric Distribution System where each Secondary Service Lateral supplies more than one electric meter (ganged meters) serving high density multi-family residential units. Multi-family residential developments not meeting four-hour firewall requirements and mobile home developments not meeting URD zoning requirements shall fall in this category. This type of development includes:
 - **Underground Apartment Development:** An Underground Electric Distribution System where each Secondary Service Lateral supplies more than one electric meter. The Secondary Service Lateral is owned and maintained by the customer.
 - **Underground Condominium Development:** An Underground Electric Distribution System where each Secondary Service Lateral supplies more than one electric meter. The Secondary Service Lateral is owned and maintained by the customer.
 - **Underground Townhome Development:** An Underground Electric Distribution System where each Secondary Service Lateral supplies more than one electric meter. The Secondary Service Lateral is owned and maintained by the customer. The customer may or may not own the property (lot).
- **Underground Residential Development (URD):** An Underground Electric Distribution System where each Secondary Service Lateral supplies a single meter serving a Single Family Residential Unit. Multi-family residential dwellings may qualify as a URD if they have four-hour firewalls. Mobile home developments meeting zoning requirements may also qualify as a URD.

1.0 Apportionment of Costs

1.1 General

- 1.1.1 JEA policy requires the recovery of the differential cost between overhead and underground electric installations for URD, UAD and UCD systems.
- 1.1.2 Analysis by JEA comparing the installation costs of underground versus overhead systems indicates that the cost of the trench and Conduit System approximates the difference in cost between the systems.
- 1.1.3 JEA will allow the application of the Non-Standard Service Revenue Allowance (NSRA) which can be used to offset a portion of the differential cost to the Developer in cases where new load is involved. Analysis by JEA indicates that the NSRA is generally equivalent to the cost of manholes, secondary conduit electronic markers, cost of standard street lights, 3-phase service, on-site overhead line removal and minor overhead line relocation work.

1.2 Developer Responsibilities

- 1.2.1 In lieu of a CIAC, the Developer shall provide the materials for and construct a trench and Conduit System consisting of the combination of duct, conduits, conduit markers, manholes, handholes, vaults and foundation pads and pits for associated surface mounted equipment as prescribed by JEA for UAD, URD and UCD systems.
- 1.2.2 The trench and Conduit System shall be installed in accordance with JEA Standards for Underground Construction.
- 1.2.3 Upon acceptance of the trench and Conduit System by JEA, title to the system shall pass to the utility and such system shall be warranted against material defects and/or improper workmanship for a period of one (1) year. The warranty period begins on the day when the new system is energized.

- 1.2.4 In the case of abnormal developments where JEA determines that the purchase and installation of the Conduit System does not meet the overhead to underground differential cost, additional charges may be assessed as required.

1.3 JEA Responsibilities

- 1.3.1 JEA will furnish, install, and maintain all primary and secondary main cable, transformers, switching and protective devices, splices, terminations, street lights and other accessories required for the operation of the Underground Electric Distribution System.
- 1.3.2 JEA will furnish and install any Secondary Service Lateral conductors and connections that may be required in accordance with JEA Rules and Regulations for Electric Services.

2.0 Requirements

2.1 General Requirements for All Developments

- 2.1.1 Arterial Highway - The Developer shall install the Conduit System required for an Arterial Highway when an Underground Electric Distribution System is required to be installed on the Arterial Highway in accordance with any applicable law and/or Governmental Policy or at the request of the Developer. The size, type and locations for the Conduit System shall be determined by JEA; such system may need to accommodate a Feeder.
- 2.1.2 Easements - In the case of non-platted Developments, the Developer shall be responsible for providing a Blanket Easement on a JEA form. For all Developments, the Developer shall be responsible for providing all necessary Specific Easements to JEA in proper form. All easements shall be provided at no cost to JEA.
- 2.1.3 Feeder - The Developer shall install the conduit system required for a Feeder when the Feeder is part of a Development and where an Underground Electric Distribution System is required to be installed in accordance with any applicable law and/or Governmental Policy. JEA determines when a Feeder is required to serve load and/or to provide necessary customer reliability. The size, type and locations for the Conduit System shall be determined by JEA for each Development.
- 2.1.4 Meters - Reference is made to JEA Rules and Regulations for Electric Service, as they may be amended from time to time, for information regarding meters, meter sockets and current transformers.
- 2.1.5 Temporary Service - JEA shall not be obligated to furnish Temporary Service until the Underground Distribution System has been installed.
- 2.1.6 Service Extensions - JEA reserves the right to use, improve or extend any facilities installed in the Development to serve any customers outside the limits of the Development.
- 2.1.7 Street Lights - The Developer is hereby referred to any current JEA or Governmental Policy relating to street lighting requirements and/or options and the various rate schedules pertaining thereto. The Developer may choose to design, install, and maintain the street lighting, in which case such lighting system would be metered.

2.2 Additional Requirements for URD Systems

In addition to the above general requirements, the following requirements pertain to URD systems:

- 2.2.1 JEA Specific Easements will be depicted on a plat or a surveyor's sketch together with a legal description to be recorded in the public records of the appropriate county. All plats and easements must be reviewed and approved by JEA Real Estate Services in advance of utility infrastructure acceptance. In special cases, a Blanket Easement may be acceptable as determined by JEA.
- 2.2.2 Specific Easements will be required for all portions of the Underground Electric Distribution System that is to be installed outside the public or private right of way, as determined by JEA. In general, Specific Easements will be required for transformers, other above grade facilities, and all primary distribution and/or Feeder locations. For the primary cable, URD systems typically require a 7.5' easement parallel and adjacent to the right of way. All easement dimensions will be determined on a case-by-case basis and specified by JEA Electric Engineering.
- 2.2.3 Commercial customers within the Development shall be supplied electric power of a type and voltage designated by JEA in accordance with this policy and the JEA Rules and Regulations for Electric Service. Such service may require additional charges from the Developer.
- 2.2.4 The Developer, or individual unit builder, shall install the Secondary Service Lateral conduit as explained in the JEA Rules and Regulations for Electric Service. JEA shall install the Secondary Service Lateral conductor and maintain the Secondary Service Lateral conductor and conduit, including all connections.

2.3 Additional Requirements for UAD Systems

In addition to the above general requirements, the following requirements pertain to UAD systems that includes Apartments, Condominiums, and Townhomes:

- 2.3.1 Blanket easements are acceptable to JEA for a UAD system. A surveyor's sketch and legal description must be provided for the blanket easement and all easements must be reviewed and approved by JEA Real Estate Services in advance of utility infrastructure acceptance. Upon approval, the easement should be recorded in the public records of the appropriate county. Specific Easements may be required for transformers, other above grade facilities, and Feeder locations. JEA does not object to a specific easement for a UAD system if a blanket easement is not desired. A surveyor must provide the location of the UAD system and prepare sketches and legal descriptions for the specific easements with dimensions defined by JEA electric engineering.
- 2.3.2 Commercial customers within the Development shall be supplied electric power of a type and voltage designated by JEA in accordance with this policy and the JEA Rules and Regulations for Electric Service. Such service may require additional charges from the Developer.
- 2.3.3 The Developer shall furnish and install, and successors shall maintain, all Secondary Service Laterals.
- 2.3.4 The Developer shall furnish, install, own, and maintain any meter pedestals, meter centers, special meter cans, service pedestals, and current transformer enclosures, the design of which shall be subject to approval by JEA.

2.4 Additional Requirements for UCD Systems

In addition to the above general requirements, the following requirements pertain to UCD systems:

- 2.4.1 Except as noted, a Blanket Easement is required from the Developer for UCD Systems. In the case of platted UCDs where the JEA Specific Easements will be recorded on the plat, a Blanket Easement is typically not required.
- 2.4.2 Specific Easements will be required for all portions of the Underground Electric Distribution System that is to be installed outside the public right of way, as determined by the JEA Distribution Projects group. In general, Specific Easements will be required for transformers, other above grade facilities, and all primary distribution and/or Feeder locations.
- 2.4.3 Commercial customers within the Development shall be supplied electric power of a type and voltage designated by JEA in accordance with this policy and the JEA Rules and Regulations for Electric Service. Such service may require additional charges from the Developer.

3.0 Procedure

The latest revision of the JEA Underground Electric Distribution Standards furnishes all required information for the construction of the Conduit System. Contact the JEA Electric Development Engineering section for details and requirements necessary to achieve timely installation of the Underground Electric Distribution System.

The JEA desires to become involved in the project as soon as possible after its inception. At no cost to the Developer, personnel will respond to requests for information and will determine for what classification of service the proposed project is eligible.

4.0 Revision or Withdrawal of This Procedure

JEA reserves the right to revise or withdraw this procedure at any time without notice. Whenever possible, reasonable notice of such intent shall be provided to affected entities.

SIGNATURE – Director, T&D Projects: Vijay Burbure _____

EFFECTIVE DATE: _____ October 14, 2014 _____

Revisions:

No.	Date	Section
1	10/01/85	Procedure created
2	06/19/96	Procedure modified
3	01/18/06	Added more details to the Multi-Family definition and procedure
4	6/20/14	Updated to reflect new assignment of responsibility
5	10/14/14	Changes based on current evaluation of development overhead versus underground cost and the application of the NSRA. Easement language revised by JEA RES.