

Development Policies
City of Oak Ridge, Tennessee
Electric Department

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**DEVELOPMENT POLICIES
CITY OF OAK RIDGE, TENNESSEE
ELECTRIC DEPARTMENT**

1 INTRODUCTION

The City of Oak Ridge offers a variety of services to its citizens. These include provision of electric power through its electric distribution system. The Electric System functions through an integrated series of laws, contracts and policies.

The purpose of this document is to summarize the policies of the City of Oak Ridge Electric Department with regard to electrical extensions. It is designed to be helpful to land developers, contractors and new customers in our City.

The administration of the policies outlined in this document is the responsibility of the Electric Department. The Department stands ready to answer questions or supply additional information about your specific project.

All Distribution of power is subject to the Rules and Regulations for Distribution of Power by the City of Oak Ridge. The Rules and Regulations are adopted by ordinance of the City and are available to all customers.

2 THE CONCEPT OF JUSTIFIED INVESTMENT

Justified investment is a concept under which the expected revenue from a particular project is compared with the capital, maintenance and operation costs of infrastructure for that project¹. At the minimum justified investment, the debt service generated by a project is covered by the electric rates and contributes to the routine maintenance and operation needs of the system. The justified investment is equivalent to the expected annual gross income from the project.

Where analysis shows that the revenue will not cover the installation, the City requires an upfront cost payment for the difference. If a dramatic expansion of the system is required, or if cost recovery is believed to be over a long period, the developer may be required to pay part or all of the expansion cost up front and be partially reimbursed as development takes place for the first five years, up to a defined amount.

3 RESIDENTIAL DEVELOPMENTS

3.1 Overhead Residential Policy

3.1.1 Primary Extension² Policy for Residential Areas

Installation of overhead electric lines within residential developments is generally performed without cost. It is the philosophy of the City that overhead service represents

¹ Because of their long life and re-usable nature, the cost of transformers is not normally included in justified investment calculations.

² A primary extension is one where high voltage lines (13.2 kV) are built into an area. Normally, these lines serve large numbers of customers, but in some circumstances (such as a keyhole lot) a primary extension may be required for a single residential customer.

the “basic service level” that is provided for in the rate structure. All such projects, however, must meet the “justified investment” in order to be fully funded by the City.

3.1.2 Individual Services for Residences

Individual overhead services for residential loads are installed at no cost to the owner. In residential neighborhoods, several houses are normally fed from a single transformer, so sometimes easements can be required.

In cases where a home is far removed from the transformer location, a primary (high voltage) extension is required.³ This is because of the voltage loss that occurs at lower voltages over significant distances.

In either case, the City requires that the property owner provide a clear path for the service installation, including tree trimming or removal and easements as appropriate.

3.2 Underground Residential Policy

3.2.1 Primary Extension Policy for Residential Areas

The customer is required to install conduits, vaults and other equipment required for electrical installation. City forces install the underground cables, transformers and make all connections. The cost of the City’s investment, however, is limited to the justified investment for the subdivision, as described below.

For subdivisions over ten lots, a ten year build out would be assumed for revenue calculations. Anticipated revenue at the three year mark (33% complete) would be used in calculating the justified investment. If permanent meter installation in the development exceeds this expectation, the developer is generally entitled to a refund of any invested monies sufficient to reflect the actual justified investment for that portion of the development completed at the three year mark.

Standards and specified required inspections are available through the Department.

3.2.2 Individual Services for Residences

3.2.2.1 Residential Services in Underground areas.

The customer is responsible for installing the conduit for services and connecting to stubouts provided in the distribution system. Where such stubouts have not been provided, the customer is not allowed to penetrate vaults or other structures that contain energized parts. Conduits should be extended to an agreed location and the City will make the required connections.

Standards and specified required inspections are available through the Department.

³ Individual services are typically low voltage feeds (120/240 volt for residential) to a single customer. In overhead areas, this would typically be the wire from the transformer on the pole to the customer’s weather head.

3.2.2.2 Underground Services in Overhead Areas

If a resident in an overhead area requests an underground service in addition to the items listed above, an estimate is prepared for the cost of extra work required and must be paid before work begins.

Note: The City will not accept wire pulled in by any other party. In cases where contractors have pulled in wire, we have removed it and returned it to the contractor.

3.3 Residential Street Lighting Policy

Street lighting in residential areas is intended to provide minimum guidance for vehicular traffic and for pedestrians. It is not intended to provide uniform lighting or security for the residents. Lights are normally placed approximately every two hundred fifty feet and at intersections.

For overhead areas, street lighting is attached to every other pole. Depending on the circumstances a variety of lighting heads may be used, ranging from 100 to 450 watts.

For underground residential areas, the City offers two types of lights. The standard underground light is mounted on a fiberglass pole and has a plain profile. A decorative light is available for the difference in cost between the two fixtures.⁴

Public street lighting is not available outside of the City limits.

4 COMMERCIAL DEVELOPMENTS

4.1 Overhead Extensions Policy

4.1.1 Existing Overhead Primary Extension Policy for Commercial Areas

Overhead electric lines are installed into commercial areas under the justified investment policy. Anticipated loads normally justify the costs.

In cases where the costs are excessive or income may be uncertain, the City may require up front cash contributions for the work with or without reimbursement, establish minimum bills, or seek other aid to construction.

4.1.2 Individual Services for Commercial Installations

Due to transformer stocking issues and the desire of the City to avoid “platform substation” construction, overhead electric services are not always available for commercial services. Where they are, the services are installed under the justified investment policy. The City maintains the service up to the weather head.

In cases where the costs are excessive or income may be uncertain, the City may require up front cash contributions for the work with or without reimbursement, establish minimum bills, or seek other aid to construction.

⁴ The standard decorative light was chosen after reviewing available options with a number of developers. The City does not supply a wide variety of lights due to the need to stock spare poles, fixtures and parts.

Note that there are defined limits to the voltage/phase/load combinations supplied by the City.

4.1.3 Justified Investment

Commercial subdivision build out is estimated to occur over a ten year period. Using this formula, revenue projections at the end of the first three years (33% complete) are used in calculating the justified investment. If build out in the development exceeds this expectation, the developer may be entitled to a refund of invested monies sufficient to reflect the actual justified investment for that portion of the development completed at the three year mark.

4.2 Underground Commercial Extension Policy

4.2.1 Existing Underground Primary Extension Policy for Commercial Areas

Developers of underground commercial areas are required to install all conduit and vaults for primary cable. The City installs the cable, subject to justified investment considerations.

Standards and specified required inspections are available through the Department.

4.2.2 Individual Underground Services for Commercial Installations

The owners are required to install primary conduit to a designated point on the property line and to place a concrete transformer pad to City specifications. The contractor also installs all secondary conduits and pulls all secondary wire.

The City maintains the primary side of the installation and provides the transformer. The owner maintains all secondary wiring.

Standards and specified required inspections are available through the Department.

Commercial subdivision build out is estimated to occur over a ten year period. Using this formula, revenue projections at the end of the first three years (33% complete) are used in calculating the justified investment. If build out in the development exceeds this expectation, the developer may be entitled to a refund of invested monies sufficient to reflect the actual justified investment for that portion of the development completed at the three year mark.

4.3 Street Lighting Policy for Commercial Areas

When a commercial area is developed in overhead areas, street lighting is attached to every other pole if the distribution system is near the roadway. Depending on the circumstances a variety of lighting heads may be used, ranging from 100 to 450 watts. Upon specific request and unusual circumstances, the City may install additional lighting, but this is rare.

In new underground commercial parks, the developer of the property is responsible for the lighting. The improvements should be installed as part of the development and dedicated to the City for maintenance. Standard specifications are available for the lights and poles.

Public street lighting is not available outside the City limits.

5 MISCELLANEOUS POLICY ITEMS

5.1 Upgrading of Existing Services

The upgrading of electric service is considered to be the same as a new service. As such, the City uses the justified cost investment approach to evaluate investment.

In the majority of cases, the additional loads that drive the upgrade easily justify the investments required by the City. This is especially true in commercial settings. Costs associated with the relocation of the service itself (for example moving a transformer to make room for a building expansion) are considered part of the upgrade and are covered by justified investment. Costs associated with relocation of lines, streetlights, anchors or other improvements outside of the service itself (for example to make room for the building or parking lot or that improve aesthetics) are not covered under justified investment and are billed at full cost (see section 5.3)

5.2 Second Voltage Services to a Structure

In cases where a single customer desires more than one voltage to a building, the City will attempt to comply given that a specified set of safety related conditions are met. The customer, however, must pay the full cost of providing the second voltage. In these cases, the customer must evaluate the costs of the second voltage in comparison with providing for his own internal voltage transformation or other solutions.

5.3 Relocation of Existing Facilities

It is the position of the City that all electric lines in the City give evidence in fact that they are necessary and part of an overall operating system with a right to occupy their position in space.

The City receives numerous requests to relocate our facilities. Whenever we replace a pole, we relocate the pole to a property line whenever feasible. We do not, however, relocate poles upon request without charge. It is the position of the City that all costs associated with the relocation of specific facilities should be borne by the party requesting (and benefiting from) the relocation.

In terms of a development project, we believe that the cost of relocation of lines is a specific component to be considered in the particular layout version of the project. We have consistently stated that the lines were present when the project was envisioned, and that if the lines impacted the value of a property or project, such impact has been in place since the lines were constructed. We are willing and able to provide cost estimates to help developers or builders evaluate the cost of their projects. The City has never believed that the ratepayers should be responsible for expenses generated by these private concerns.

5.4 Contribution toward Substation Construction

The City's policy that commercial loads that require an addition to a substation must bear the cost of the expansion. Specific negotiations with the customer are required

5.5 Redundant Services

It is the practice of the City to offer only one feed from one circuit to a customer. When a customer requires a second feed, it can be installed for cost. If the load is of such

magnitude as to require reservation of capacity at a second substation, the cost of that reservation is included in the cost calculated.

The City does not purchase, install or maintain the transfer switch required for a customer to be fed from two circuits. In cases where customers have been fed from two different City-supplied transformers, they have been required to purchase one of the units.