



PREPARED BY

# Electric Service Standards

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## III. SERVICE PROVISIONS

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### III. SERVICE PROVISIONS

#### A. Standard Service

FPL's standard service is that supplied by overhead lines, with wood poles, to FPL's designated point of delivery, at the standard voltages specified below. All service is alternating current at 60 hertz (60 cycles per second). All voltages and frequencies mentioned are nominal values.

Single phase, three wire 120/240 volt service is furnished for ordinary lighting loads, household equipment, small appliances, and motors. This voltage is standard throughout FPL's service area for residences and for commercial and industrial applications where three phase service is not required, in the opinion of FPL, or available. Three phase service will be provided where available, or where in the opinion of FPL, the use of single phase is impractical. This, as with all service, is subject to the line extension provisions of section III.C. Devices to convert single phase to three phase can be obtained for a wide range of three phase motors, therefore availability of three phase service for smaller motors should be discussed in advance with FPL.

**Voltages Under 600V** - In most locations, FPL's overhead secondary distribution system provides service at the following standard voltages:

- Single phase, 120 volt, two wire
- Single phase, 480 volt, two wire (street lighting)
- Single phase, 120/240 volt, three wire
- Single phase, 240/480 volt, three wire

In some locations, FPL's system is able to provide service at the following voltages:

- Three phase, 120/240 volt, four-wire delta
- Three phase, 120/208 volt, four wire wye
- Single phase, 120/208 volt, three wire (from a three phase, four wire wye system)
- Three phase, 277/480 volt, four wire wye

120/240 volt, four-wire delta is determined by FPL to be the standard 3 phase voltage for loads in which individual motor sizes are greater than or equal to 7.5 hp (but not exceeding 20 hp), or, the 3 phase "demand" load does not exceed 75 KVA, or, the "total" demand load does not exceed 150 KVA, **and** the use of single phase, in the opinion of FPL, is impractical. When the Customer desires three phase, 120/208 or 277/480 volt will be considered the standard voltage only where, in the opinion of FPL, three phase service is required, **and** 120/240 volt delta service is not, in the opinion of FPL, the standard voltage for the load being served, unless otherwise mutually advantageous to both FPL and the Customer.

**Voltages Over 600V** - Service requirements for installations requiring higher distribution voltages (primary voltages) are subject to special negotiation between the Customer and FPL. Customers accepting primary voltage will provide, through ownership or rental, all distribution facilities required beyond the metered point, and, all facilities required for reducing or increasing the FPL supplied voltage to any other voltage which he may require.

If the customer plans to lease higher voltage transformers from FPL, the voltages for transformers available through FPL are:

- Single phase, 2400/4160 volt\*
- Single phase, 7620/13,200 volt\*\*
- Single phase, 13,200/22,860 volt\*\*\*
- Three phase, 2400/4160 volt grounded wye
- Three phase, 7620/13,200 volt grounded wye
- Three phase, 13,200/22,860 volt grounded wye

(For connection phase to neutral to a grounded wye system rated: \*2400/4160 volts; \*\*7,620/13,200 volts; \*\*\*13,200/22,860 volts)



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Typically, where the customer requests service considered by FPL to be non-standard for the load being served, the Customer will bear the additional expense as a CIAC.

**B. Point of Delivery**

The point of delivery is defined as that location where FPL's electric facilities connect to those of the Customer's. FPL will give considerable weight to the Customer's preference, but shall reserve the right to designate this location. Should the Customer request a location other than that designated by FPL, and FPL approves, the Customer shall be responsible for all additional costs to extend beyond FPL's designated point.

**C. Extension of FPL's Electric Facilities**

1. **General** - Amounts due as Contributions In Aid of Construction (CIAC) from customers who require extensions or "upgrades" of distribution facilities are calculated in accordance with Florida Administrative Code (FAC) Section 25-6.064 and FPL's Tariff (General Rules and Regulations paragraph 2.2).
2. **Overhead Extensions** - FPL extends or upgrades its overhead facilities at no charge if:
  - a. the facilities being built are for standard service for the load being served, *and*
  - b. FPL's expenditure is supported by the Estimated Annual base rate Revenue (EAR)

Other factors that may affect the approval of the extension include:

- The potential of other customers to be served from the same extension or addition within a five year period
- The permanency of the installation being served
- The expected completion date of the project
- The need to improve facilities at or near the area to be served such that the line extension can be installed
- Issuance of a construction permit
- Examination of architectural plans

A nonrefundable Contribution in Aid of Construction (CIAC) will be required for any overhead extension where the total estimated job cost for the extension or upgrade (excluding service drops and meters) required to provide *standard service*, as determined by FPL, exceeds four (4) times the estimated annual incremental base rate revenue (EAR). This CIAC amount is equal to the difference between that estimated total job cost (excluding service drops and meters) and four (4) times the EAR. For upgrade of facilities, the customer is also charged for the Net Book Value of the existing facilities removed and receives a credit for salvageable items. If the customer requests facilities that are not typically required, in the opinion of FPL, to serve the load, a CIAC in addition to the above difference will also be required. This *additional* amount is equal to the difference (including service drops and meters) between FPL's estimated cost to provide the standard service and the estimated cost of the non-standard service requested by the Customer.

3. **Underground Extensions** - Where, in FPL's opinion, overhead distribution facilities are typically provided to serve the load for which service is requested, but underground is provided instead (due to Customer request or the requirement of a governmental agency), a CIAC is required which is equal to the difference between the total estimated cost to provide the overhead *standard* service and the total estimated cost of the underground. This differential cost includes all service drops and meters.



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Furthermore, if the cost of the overhead system for standard service could not have been supported by estimated incremental base rate revenue, the Customer would pay an *additional* CIAC amount equal to the difference between that total estimated job cost (excluding service drops and meters) and four (4) times the EAR.

### D. Residential Service (under 600v)

A single, one phase, 120/240 volt, three wire overhead service drop per lot is the standard service offered by FPL to residential customers. Excluding any extension charges that might apply (section III.C.2) this service is offered at no charge to FPL's designated point of delivery. Three phase service may be available but only under special circumstances and CIAC charges might apply.

FPL will provide residential underground electric service upon request when the Customer or developer pays the difference between the estimated cost of underground and the estimated cost of overhead facilities, as defined in FPL's General Rules and Regulations for Electric Service and Underground Residential Tariff. The charges quoted in the Tariff are based on conditions which permit employment of rapid construction techniques. This Tariff applies to all residential customers, including those where underground is required by local ordinance.

Underground residential service is offered under the provisions of the Residential Tariff for:

- New subdivisions, known as URD (Underground Residential Distribution) Subdivisions
- New underground service laterals from overhead systems
- Replacement of existing overhead and underground service laterals
- New multiple occupancy residential buildings

#### 1. Underground Service for New Residential Subdivisions (Less than 5 units per building)

When requested, FPL will provide underground distribution facilities in accordance with its standard practices, in (a) recognized new residential subdivisions of five or more building lots and (b) tracts of land upon where five or more separate dwelling units are to be located.

Developers of new URD subdivisions are to contact FPL before the platting process so easements can be included in the plat. Survey work associated with producing legal descriptions of such easements for FPL facilities is to be completed by the developer's surveyor where needed. Early notice also enables FPL to design an efficient URD system and consider preferences the developer may have concerning the location of FPL facilities.

FPL will normally provide the trench and backfill for all its underground distribution facilities, including service laterals. The Customer will provide and install the service entrance conduit (downpipe), the meter socket, and the wiring from the meter socket to the service entrance equipment (Fig. IV-11a,b). If the Customer wants to trench, backfill, and install the FPL provided conduit, and FPL agrees, a credit will be applied towards the contribution amount, up to the amount of the charges that are due.

The charges for underground service are based upon arrangements that will permit serving the subdivision's underground distribution system from overhead feeder mains. If feeder mains are deemed necessary by FPL to provide and/or maintain adequate service and are required to be installed underground by the Applicant or a governmental agency, the Applicant shall pay FPL the difference between the cost of such underground feeder mains and the cost of equivalent overhead feeder mains.

Tariff charges for underground service to new residential subdivisions are based on timely and reasonably full use of the land being developed. Where FPL is required to construct underground facilities through a section or sections of the development where full use of



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facilities, as determined by FPL, may not be realized for at least two years, FPL may require a deposit before construction commences. This deposit, to guarantee performance, will be based on the estimated *total* cost of such facilities. The amount of the deposit, without interest, in excess of any differential charges for underground service will be returned to the applicant on a pro rata basis at quarterly intervals on the basis of utilization. Any portion remaining un-refunded after five years from the date FPL is first ready to render service from the extension will be retained by FPL.

**2. Underground Service from an Overhead System to New Residential Buildings (Less than 5 units per building)**

FPL will normally provide the trench and backfill, and provide and install the PVC conduit and service lateral conductors. The Customer will provide and install the service entrance conduit (downpipe), provide and install the meter socket and the wiring from the meter socket to the service entrance equipment (Fig. IV-11a,b). If the Customer requests to trench and backfill, and install the FPL provided conduit, and FPL agrees, a credit will be applied towards the CIAC amount, up to the amount of the charges that are due.

If the customer prefers to install, own, and maintain the underground service lateral, FPL will install a handhole at the base of the pole, at the charge specified in the tariff. Customer risers are not permitted to be attached to FPL or telephone company poles.

**3. Replacement of Existing Overhead and Underground Residential Service Laterals**

If a residential customer wishes to replace an existing FPL overhead service drop with an underground service lateral, or to relocate an existing FPL underground service lateral, or to replace a customer owned underground service lateral, FPL will provide the underground service lateral according to the terms, provisions, and charges specified in the tariff.

The Customer shall provide the trench and backfill, install the FPL provided PVC, and provide all restoration. The trench shall be deep enough to provide 24" of cover (36" maximum) over FPL's service lateral. The customer shall also provide and install the downpipe from the meter socket, replace the meter socket if necessary, and perform all rework necessary to accommodate the new service lateral (Fig. IV-11a,b). If requested by the Customer, and FPL approves, FPL may provide the trench and backfill and install the conduit, but the Customer shall pay for this work based on a specific cost estimate. In either case, FPL will provide, install, and connect the service lateral cable from the secondary source to the meter socket.

**4. Mobile Home and Recreational Vehicle (RV) Parks**

Individual electric metering by the utility is required for each separate occupancy unit (where the intent is to establish permanent residency) in trailer, mobile home and recreational vehicle (RV) parks for which construction was commenced after January 1, 1981.

FPL will supply service to these individual units provided the service entrances are properly wired and grounded in accordance with the National Electrical Code and local building codes, and the wiring is approved by the local inspector.

Overhead service typically requires no CIAC provided the estimated revenue supports the estimated cost of any extension that might be required (section III.C). Underground service requires CIAC in accordance with FPL's Tariff.

FPL's overhead service drop or buried service lateral may not terminate directly on a mobile home or recreational vehicle, but shall run to a pole or pedestal mounted service entrance provided by the Customer. The customer's service equipment is to be mounted on the load



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side of the meter socket. The wiring from the pole or pedestal to the Mobile Home or RV is also provided and installed by the customer.

For overhead service, a treated pole or equivalent shall be furnished to provide adequate support and elevation for FPL's service drop. Overhead service drops shall have 16 feet of clearance crossing over areas subject to mobile home or recreational vehicle movement. Other clearances are specified in section IV.B and Fig. IV-5.

If service is underground, an approved pedestal shall be furnished to support and protect FPL's cable and meter (Fig. IV-13a,b,c). If the Customer wishes to furnish and use a pedestal which combines the service equipment and the meter socket, he may do so only if he uses equipment on FPL's approved list. It shall be the Customer's responsibility to obtain authorization from FPL before any commitments are made to use this equipment at a particular location. There will be no charge to FPL.

Where individual electric metering is required, it is often advantageous for the Customer to group multiple meter sockets and service equipment on a single pole or pedestal (Fig. IV-13c). Where overhead service is provided, this is aesthetically advantageous in that the number of aerial service drops is minimized. Where underground service is provided, this reduces the CIAC amount required by FPL.

In those parks or areas of parks designated for overnight occupancy (where the intended use is not for purposes of permanent residency), individual electric metering is not required, nor provided by FPL. In these cases, electric consumption is considered commercial use, and FPL will provide a single point of service (or multiple points if deemed necessary or appropriate by FPL) with each point individually metered. Electric wiring from these points to the individual units is the responsibility of the Customer.

### 5. Multiple Occupancy Buildings (5 Units or more per building)

For new residential multiple occupancy buildings (five or more dwelling units), the Customer may request underground service. FPL will provide underground facilities at or near the building at no cost to the Customer provided FPL is allowed to build its distribution facilities in the most economic and efficient manner. If FPL determines a padmounted transformer is necessary, the transformer will be the point of delivery, to which point the Customer will install (and FPL will connect) his cables. The customer will furnish the transformer pad location per FPL pad specifications (section V.A). The location will typically lie between FPL's source of power and the portion of the building closest to the available source.

Should a point of delivery not preferred by FPL be desired by the Customer, a CIAC will be required to cover any additional cost that might be incurred. Should the Customer provide the suitable location but FPL elects to place its transformer equipment elsewhere, FPL may elect to install its buried secondary conductors to an FPL owned handhole. In this case, the handhole would be the point of delivery.

The Customer shall extend his building service to FPL's designated point of delivery regardless of the distance from Customer's switchgear.

When feeder mains on tracts of land upon which multiple occupancy buildings will be constructed are deemed necessary by FPL to provide and/or maintain adequate service, and underground installation is requested by the Customer or required by a governmental agency, the Customer shall contribute the difference between the cost of underground and the cost of overhead feeder mains. There will typically be no contribution required from the Customer with respect to construction of underground distribution facilities to multiple occupancy dwellings other than feeder mains as long as FPL is free to construct such extensions in the most economic manner, and reasonable full use is made of the tract of land



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upon which the multiple-occupancy residential buildings will be constructed. Other conditions may require special considerations or arrangements.

### 6. High-Rise Buildings (Residential, Commercial, or Mixed Use)

**General** - Standard service to high rise buildings is from a single main vault provided by the Customer, at ground level. If solid bus is used to carry power from the vault to the meter rooms, the bus from the main vault to the meter rooms must be "feeder bus" or "riser bus". "Plug bus" is not allowed prior to the meter centers. The Customer may request that primary service be extended vertically to transformer vaults located at intervals in the building. This "stacked" vault option is available only if certain criteria are met, FPL agrees, and local codes and inspecting authorities allow this type of construction.

Economic considerations to FPL and the Customer are key factors in deciding whether to use stacked vaults. If stacked vaults are requested, and FPL approves, the Customer will be required to contribute the differential cost. That cost is the difference between the estimated cost of a single main vault and the estimated cost of the multiple vaults.

#### Criteria for Single Vaults:

The load must exceed the following capability or CIAC will apply:

- 1000 KVA for 120/208V loop or radial type padmounted transformers
- 1000 KVA for 277/480V loop type padmounted transformers
- 2500 KVA for 277/480V radial type padmounted transformers

#### Criteria for Stacked Vaults:

- The units shall be metered according to the requirements set forth in Florida Administrative Code 25-6.049
- Single phase vaults shall be 120/240V and the capacity of the vault shall not exceed 333 KVA
- Three phase vaults shall be 120/208V or 277/480V and the capacity of the vault shall not exceed 1500 KVA
- All switching equipment and/or throwover equipment shall be located in the ground floor main vault
- All critical loads shall be served from the ground floor main vault
- At least 3 stacked vaults shall be required, as determined by FPL, to serve the load
- The Customer shall adhere strictly to FPL's specifications concerning vault and duct construction (section V.C)

**The Main Vault** - The same specifications that apply to any other grade level vault apply also to the main vault of a high-rise, stacked vault distribution system (section V.B). FPL will furnish separate specifications for the main vault.

**Agreement to Proceed** - The Customer shall secure agreement from FPL on the use of stacked vaults in the early design stages. When this agreement has been reached, the vaults should be physically located near the center of the load they will serve. Single phase vaults will be spaced 3 floors apart (i.e. – floor 3, 6, 9, 12, etc.) serving the floor containing the vault and the floors immediately below and above the vault. Three phase vaults will be spaced 9 floors apart (i.e. – floor 6, 15, 24, etc.) serving the floor containing the vault and the 4 floors above and 4 floors below the vault.



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The Customer shall obtain engineering information from FPL as to how much space will be needed for FPL's electrical equipment. The Customer should obtain FPL's detailed vault specifications before completion of the design stage.

**E. Commercial Service (under 600v)**

For commercial Customers whose load is such that, if located in an overhead area it could be served by one (or bank of) single phase aerial transformer(s) rated 100 kVA or less (as determined by FPL), standard service is considered by FPL to be overhead (with wood poles), at the standard voltages specified in section III.A, to the FPL designated point of delivery.

**Commercial Underground Service**

For loads where overhead service is considered standard by FPL, and underground service is either requested by the customer or required by local governmental agency, a CIAC equal to the difference between the estimated cost of underground and the estimated cost of overhead will be required. These differential charges are specified in FPL's Underground Commercial Distribution Tariff, **providing the service requested is at the standard voltage, in the opinion of FPL, for the load being served.** Special situations or requests for non-standard voltage may require specific cost estimates. Where EAR does not support the estimated cost of an FPL line extension, additional CIAC will be required (section III.C).

**a. Underground Service to Small Commercial Loads**

In overhead areas where the meter socket is located at least 5 feet but not more than 100 feet from the utility pole, and where the Customer's main line switch is no more than 60 Amps for a two-wire 120 volt or 125 Amps for a three-wire 120/240 volt service, FPL will install the underground service to the meter socket if the Customer prefers (typically, this is the only situation FPL will install underground service conductor to a commercial Customer's meter socket, unless otherwise mutually advantageous to both the Customer and FPL). A CIAC is required. The Customer provides the trench and backfill (24" minimum cover); the 2" PVC conduit from the meter socket (see Fig. IV-11a,b) to the base of the pole (24" radius 90° 2" PVC bend at base of pole); all restoration, easements and permits.

Otherwise, the customer can install his underground service conductors to an FPL handhole at the base of the pole (where FPL will connect its conductors to the Customer's), where CIAC also applies; or, the customer can elect to receive overhead service. **Customer owned risers for commercial electric service are not permitted on FPL or Telephone Company poles.**

Where FPL's secondary source is "underground" (i.e. vault, padmounted transformer, or handhole), the customer provides and installs the service conductors, and FPL connects those conductors at that secondary source. If that underground secondary source was existing before the request for service, no CIAC would typically be required.

**b. Underground Service to Moderate Commercial Loads**

In overhead areas where, in the opinion of FPL, the load is such that secondary voltage can be provided at an overhead source, FPL will provide secondary conductors to a handhole at the base of the pole where FPL will connect to the Customer's underground conductors. If a transformer (or transformers) must be hung to make this secondary voltage available, FPL will consider installing underground primary cable to a padmounted transformer, where FPL will connect to the Customer's underground conductors. In either case, CIAC applies.

If either of these options is not desirable, the customer can elect to receive overhead service. **Customer owned risers for commercial electric service are not permitted on FPL or Telephone Company poles.**



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Where FPL's secondary source is "underground" (i.e. vault, padmounted transformer, or handhole), the customer provides and installs the service conductors, and FPL connects those conductors at the secondary source. If that underground secondary source was existing before the request for service, no CIAC would typically be required.

### c. Underground Service to Large Commercial Loads

If the load is such that, if located in an overhead area it could not be served by one (or bank of) single phase aerial transformer(s) rated 100 kVA or less, in the opinion of FPL, FPL's standard service then would consist of underground primary cables (from an overhead source determined by FPL) to a radial padmounted transformer. CIAC would typically not be required if the cost of an equivalent overhead line extension is justified (section III.C), but would be required for cases including, but not limited to; radials that cannot originate from an overhead source where, for instance, a pad mounted switch cabinet must be installed; "loop" systems; underground primary conductors that do not originate at an overhead source at FPL's preferred location; points of delivery requested beyond those designated by FPL; etc.

For larger loads exceeding 2500 KVA and other special circumstances, FPL's standard service consists of underground primary cables from an overhead source (determined by FPL) to a radial vault. The CIAC provisions stated in the preceding paragraph apply to vaults, as well. For padmounted transformer and vault specifications, refer to section V.

### d. Automatic Throwover Facilities to Large Commercial Loads

Throwover facilities enable a customer's primary electrical feed to be switched from a preferred source to an emergency source, using automatic FPL switching equipment. Throwover facilities are provided at no charge only in FPL designated underground areas where for physical, operating, or economic reasons, an underground throwover system is in the collective best interest of FPL and its customers.

In non-designated underground areas, throwover facilities *may* be provided, although CIAC would apply. If a throwover system is feasible, the CIAC would include, but not be limited to, the estimated cost of all additional equipment required for operation of the throwover system and the estimated cost of the additional emergency feeder to the customer's location. New installations with a demand load of at least 500 KVA will be granted a credit, not to exceed the amount of CIAC required, equal to their first year's annual base rate revenue. Existing customers increasing their demand load at least 500 KVA will be granted a credit, not to exceed the amount of CIAC required, equal to their first year's annual base rate revenue.

The type of throwover system equipment to be installed (ATS Powell-Esco vs. Vac-Pac) is the decision of FPL. If the customer specifically requests a more expensive option than required for the load being served, the additional cost is borne as CIAC.

For additional information concerning throwover service, contact you local construction representative.

### e. Loop service to Large Commercial Loads

Loop service can be provided in lieu of throwover based on the criteria stated in section (d) above. Loop service may be more economical when there is only one feeder (source) available.

#### Examples of Loop:

Some typical examples of loop service include but are not limited to, strip shopping centers, building supply chains, grocery stores, large hotels, outdoor malls, etc.





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For additional information concerning loop service, contact you local construction representative.

## F. Underground Service Connections in the City of Miami Network Area

Service voltage in the City of Miami Downtown Network Grid is four wire, three phase wye, 120/208 volts. When other voltages are desired, the Customer is requested to contact FPL to determine their availability. Network service is only available from the existing network grid, new secondary networks are not being constructed.

Service may be available from the underground street secondary mains, or from a vault, depending on the magnitude of the load involved.

For service from the secondary mains, the Customer will provide and install, at the Customer's expense, the conduit and cables from the Customer's main switch or FPL's metering devices to the point of delivery. The point of delivery will be FPL's manhole, pullbox or vault located at or near the property line, as designated by FPL. FPL will connect the Customer's secondary cable to FPL's facilities.

FPL may, where it is mutually advantageous, elect to extend primary circuits into the Customer's property and serve the immediate and adjoining premises from a standard (non-networked) transformer vault located on the Customer's property. See section V.

## G. Temporary/Construction Service

### 1. General

Temporary/construction service is usually a limited term service to installations such as fairs, exhibitions, construction projects, displays and similar projects. Contact FPL regarding availability and applicable installation and removal charges before installing the temporary facility. These nonrefundable charges are paid **in advance** of FPL's construction.

Where the Customer's service entrance cable does not exceed 200 ampere capacity, the nonrefundable flat charge is specified in FPL's Tariff (Sheet No. 4.030). Larger services may require additional charges. For overhead service, the charge covers installation and removal of an overhead service and meter, at an existing secondary source. For an underground service, the charge covers connecting and disconnecting the Customer's service cable to FPL's existing underground facilities, including installation and removal of the meter. Contact FPL to determine current charges and availability of temporary/construction service.

Service may be single phase or three phase, 60 hertz, at the available standard secondary distribution voltage. This service is available only when FPL has existing capacity in lines, transformers and other equipment at the requested point of delivery.

For overhead temporary service, the Customer shall provide a sturdy and adequate service drop support, complete with service entrance and FPL approved meter enclosure, to accommodate FPL's service drop and meter (Fig. IV-1). In an underground area, a pedestal with FPL approved meter socket shall be provided to accommodate the meter, and the Customer's service cable shall be installed up to FPL's facilities (Fig. IV-2). An adequate amount of service cable shall be left available for FPL crews to pull into the handhole or transformer for connection. **Note: In underground residential distribution (URD) areas, handholes will not be installed by FPL for the sole purpose of providing temporary service.**

If specific electrical service other than that stated above is required, FPL, at the Customer's request, will determine its feasibility and may provide such service based on the estimated cost of installing and removing such additional electrical equipment. This estimated cost is payable in



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advance to FPL and will be subject to adjustment or refund based on the actual costs. The additional service may be overhead or underground, depending on circumstances at the particular location, as determined by FPL.

All temporary/construction services shall be subject to all of the applicable Rules, Regulations and Tariff charges of FPL, including service charges. The energy used by the temporary service will be billed monthly under the appropriate rate schedule applicable to commercial and industrial type installations.

The Customer's installation shall satisfy all the requirements of the National Electrical Code and other authorities having jurisdiction.



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## 2. Reduced Cost Alternatives

### a. TOP

The TOP (temporary overhead permanent) alternative is available for residential and small commercial customers where the permanent FPL approved meter socket, meter, and weatherhead are configured such that they can be used for temporary service. Upon receipt of the temporary inspection, FPL installs the permanent service to the meter socket, and this service is used for construction purposes until the Certificate of Occupancy is obtained. Since no additional work is required by FPL for this type service, no additional construction charges are required, provided that all of the FPL construction work can be performed in a single field visit. However, **check with your local authorities first.** Not all inspectors allow this alternative.

### b. TUG

The TUG (temporary underground) alternative is available for underground residential services where the permanent FPL approved meter socket, meter, and downpipe are configured such that they can be used for temporary service. Upon receipt of the temporary inspection, FPL installs the permanent service to the meter socket, and this service is used for construction purposes until the Certificate of Occupancy is obtained. Since no additional work is required by FPL for this type service, no additional construction charges (other than the cost of the permanent underground service itself) are required, provided that all of the FPL construction work can be performed in a single field visit. However, **check with your local authorities first.** Not all inspectors allow this alternative.

One variation of the TUG involves building a portion of the permanent wall and mounting the permanent meter socket, down pipe and customer switch panel on it. The main line switch and breakers for a 120V duplex GFCI receptacle and a 50A 230V receptacle are mounted in the panel with the receptacles mounted below the panel. A minimum 6 mil clear plastic sheet is mounted over the panel to protect it from the weather and a sticker warning of live electrical is placed on the panel. Upon receipt of the Customer's contribution for the permanent underground service, the application for service and the inspection, FPL will install the permanent underground service and meter, and the receptacles mentioned above are used for construction power.

## H. Unauthorized Connections & Disconnections

All connections of the Customer's wiring to that of FPL, all disconnects of service entrance conductors, all meter removals and installations and all breaking of FPL meter equipment seals shall be made only by FPL, except as allowed in Section III.I of these standards.

Any other connection or disconnection of FPL's service by the Customer or his agent is prohibited. If done with the intent to injure or defraud, it is punishable by law. Violators will be prosecuted.

## I. Change in Service Requirements (Service Changes)

The Customer will normally own all the service facilities on his side of the point of delivery; i.e., the point where FPL's wires carrying the voltage of supply are to join the Customer's wires, except for the meters which will be owned by FPL.

The Customer shall notify FPL, in advance, when a change in service (service change) is being considered to accommodate provisions that service and metering facilities remain adequate.



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Care must be taken when planning the service change to ensure the existing FPL owned conductors will be long enough to reach the new service equipment. If the FPL service must be replaced in order to reach the new service equipment, the customer may be responsible for the cost of the service replacement.

When a service change requires disconnection of FPL's service, the customer shall request a disconnect/reconnect from FPL. The Customer shall establish an advance appointment to ensure proper coordination between his electrical contractor and FPL crews who will disconnect the service and later reconnect after an inspection (when required by local authorities) is received.

### Exception:

FPL normally performs both the disconnect and the reconnect. In certain cases however, the Customer's licensed and qualified electrical contractor is allowed, at his option, but only when approved by FPL, to perform the disconnect on overhead services only, when the following criteria are met:

- The Customer shall be a residential or small commercial facility with a main line switch rating of 300 Amps or less, served by an FPL single phase overhead service. **No three phase service shall be disconnected by an electrical contractor.** FPL must disconnect all three phase services to ensure that proper phase rotation is maintained.
- FPL service attachment point at the building or structure shall remain intact. No service shall be removed from the attachment point or the attachment point altered in any way.
- The meter socket(s) must not have an FPL locking device installed.
- If multiple meters are involved, the electrician shall "mark" each meter and socket.
- **Only a licensed and qualified electrical contractor** may perform the disconnect function and he shall schedule a reconnect date (appointment) with FPL before disconnecting the service. If the appointment is not made before the disconnect, FPL will not be responsible for a same day reconnect.
- The service shall be cut on the load side of FPL's connection to the customer's service conductors. **No FPL conductors are to be cut.**
- The service shall be disconnected before removing the meter(s). **No meter is to be removed from an energized meter socket.**
- FPL personnel only are to perform the reconnect, and only after an inspection (if required by the local authority) has been received. **Electrical contractors are not allowed to reconnect the service.**
- The decision to perform this type of disconnect is entirely voluntary for the electrical contractor and allows work to commence without having to wait for FPL to disconnect the service. However, the electrical contractor still has the option of FPL performing the disconnect if he prefers.

### J. Service to Special Equipment

The operation of electric furnaces, electric dredges and draglines, large motors and other heavy utilization equipment, if served from FPL's distribution system, might interfere with service to other Customers. Contact FPL concerning the requirements for furnishing this type of service. Refer to Section IX.

### K. Service to Boat Facilities

FPL electric service to marinas and private docks will be to a designated point of delivery on shore. The Customer shall bring his service conductors to the point of delivery (such as a handhole, pedestal, junction box, or padmounted transformer). FPL will not extend its conductors onto marinas or docks.



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The Customer should install his FPL-approved meter sockets so as not to be a hazard to people on the dock and they shall be accessible for meter maintenance and monthly readings. The socket shall be mounted such that the meter will face the dock and not the open water and not represent a protrusion hazard.

## **L. 2 wire, 480V Metered Service**

On all self-contained, metered installations (320 amperes or less) where the service voltage is 480V to ground (2 wire), a non-automatic disconnect device shall be provided and installed by the Customer on the line side of each individual meter. For meter centers, there shall be one disconnect device on the line side of each meter. The disconnect device shall be lockable or sealable by FPL and adjacent to each meter. The Customer-owned non-automatic (no over current protection) disconnect device ampacity must meet all NEC Guidelines. A lever bypass equipped meter enclosure is required and shall be selected from the Approved Meter Equipment Enclosure List.