BROWNSVILLE
PUBLIC UTILITIES BOARD

Electric Service Policies

General Rules and Regulations

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CHAPTER 1 – TERMS AND CONDITIONS

1.0 GENERAL

In order that all customers may receive uniform, efficient and adequate utility service, all customers who have applied for or are receiving electric, water and/or wastewater service from the Brownsville Public Utilities Board of the City of Brownsville, Texas, (herein referred to as "BPUB")) shall be subject to the Conditions stated herein. These Electric Service Policies supersede all prior policy issues including the electric portion of the Electric, Water and Wastewater Service Policies General Rules and Regulations.

1.1 DEFINITIONS

The following definitions are given for the purpose of establishing standard interpretations of the terms used in this policy. Except where specific definitions are used within a certain article or section of this policy for the purpose of such section, the following terms, phrases, words, and their derivations shall have the meaning given herein when not inconsistent with the context. Words in the plural number include the singular number and words in the singular number include the plural number. The word "shall" is mandatory and the word "may" is permissive.

Apartment - Two or more buildings constructed on a single parcel of property where each building contains at least two (2) living units or one or more buildings constructed on a single parcel of property where each building contains at least five (5) living units.

Applicant - The person, organization, or corporation who signs an application form requesting electric, water or wastewater services be made available at a specific location and thereby agrees to pay for all such services at the location (also see Customer).

Availability Letter – An availability letter confirms that a property is located within BPUB's electric service area and that BPUB can provide electric service to a potential customer. Lenders may require a letter as part of the loan approval process for financing a new home purchase or a new construction project.

Building - Any structure, either temporary or permanent, having a roof, and used or built for the shelter or enclosure of persons, animals, vehicles, goods, merchandise, equipment, materials or property of any kind. This definition shall include but is not limited to tents, lunch wagons, dining cars, trailers, mobile homes, sheds, garages, carports, animal kennels, store rooms or vehicles serving in any way the function of a building as described herein.

Cameron County - A County in the State of Texas hereinafter called the "County."

City of Brownsville - A municipal corporation hereinafter called the "City."

Conduit System - All conduits (including spare conduits), equipment pads, trenching and backfilling.

Contribution in Aid of Construction (CIAC) - The amount charged by BPUB as reimbursement for the infrastructure necessary to deliver utilities to Customer. A Customer applying for new service will be charged all estimated costs for labor and material required to modify existing infrastructure and to extend service from BPUB's existing infrastructure to the Customer's point of service to serve the requested load. This includes the service drop and meter. Includes the cost of property or money received by BPUB from Customer to be used directly or indirectly for the construction or acquisition of a facility to provide service to the Customer.

Customer - The person, organization, or corporation responsible for payment for all electric, water or wastewater services used at a specific location and further defined as that person, organization or corporation who signed the application requesting that electric, water, and/or wastewater services be made available at the specific location and thereby agreeing to pay for all usage of such services occurring at said location (also see Applicant).

Deposit - The amount of money placed with BPUB by each Customer as security for payment of the electric, water or wastewater bill.

Developer - Any person or legal entity engaged in developing or subdividing land to which utility services are to be rendered by BPUB. Where applicable, any individual or legal entity that applies for the extension of utility services or connection to the utility system in order to serve a certain property.

Development - A parcel or tract of land of any size within the city limits of the City of Brownsville or its extraterritorial jurisdiction and regardless of whether it is legally described (by plat or metes and bounds) as a single lot, parcel or tract or subdivided into and described (by plat or metes and bounds) as, two or more lots, tracts, or parcels that is being improved or developed to accommodate residential, commercial or industrial land uses including any combination thereof together with certain public uses such as but not limited to streets, alleys and parks. The parcel or tract of land may ultimately be sold whether in whole or in part to one or more parties but the proposed or actual sale of developed land is not a prerequisite for the parcel or tract of land to constitute a "development" under these Service Policies. For the purpose of clarity and not limitation on the scope of the definition of the term, "development," a development will include but is not limited to a parcel or tract of land that is subdivided into two or more lots with only one lot being developed or improved at the present time and the remaining parcel(s), tract(s) or lot(s) of land being developed or improved at a future date.

Dwelling - A house, mobile home, apartment or building used primarily for human habitation. The word dwelling shall not include motels, tourist courts or other accommodations for transients, nor shall it include dormitories, fraternities, sororities, rooming houses, businesses or industrial facilities.

Single Family – A building containing not more than one living unit on one or more lots. Mobile homes not in approved mobile home parks are considered single family dwellings.

Single Family Attached – Single family dwelling units constructed in such a manner that the units share a common wall and lot line with another unit. Duplexes, triplexes and quadruples shall be considered "single family attached" housing units.

Duplex - A single building containing two living units constructed on one or more lots.

Triplex - A single building containing three living units constructed on one or more lots.

Quadruplex - A single building containing four living units constructed on one or more lots.

Multiple Family - A building in which two or more living units exist. Multiple family units shall be the same as duplexes, triplexes, quadruplexes, apartments, condominiums, townhouses, and mobile homes in approved mobile home parks for the purpose of billing monthly service charges.

Electric Service - The supply of BPUB's product "electricity," to the customer. The wire connections between BPUB's lines and the customer's wiring is a service connection and is sometimes called "a service."

Electric Underground Service Connection - The portion of the underground system installed which connects the customer to BPUB's secondary. This would consist of the underground cable from customer's service entrance equipment to BPUB's secondary pedestal or transformer. Ownership of this electric underground service connection for residential customers resides with BPUB, while ownership for commercial customers resides with the customer.

Electric Service Drop - The overhead service conductors between a pole and the point of attachment to the customer's property.

Electric Service Entrance - Wire and enclosures, connecting the customer's service equipment and the service drop or source of supply.

Electric Service Equipment - Equipment usually consisting of circuit breakers or switches and fuses installed by and at the expense of the customer near the point of the entrance of the supply conductors to a building and intended to constitute the main control and means of cut off for the supply to that building.

Electric Service Location - The point in or on a premises where BPUB's overhead service drop or underground service lateral connects to the customer's service entrance conductors. The location is designated by BPUB and is also called the "point of service."

Engineering Estimate - A calculation of the construction costs of a project based on BPUB's Engineering and Planning Division's best available current estimates of costs for material and labor plus overheads for engineering, contingency, general and administrative costs.

Individual or Person -– Includes any group of persons, firms, corporations, associations, organizations, or legal entities.

Industry - Any activity involving the manufacturing or treatment of any commodity including the assembly, packaging, canning, bottling, or processing of any item. To change any commodity in composition, form, size, shape, texture, or appearance is deemed to be an industrial process.

Joint Facilities Use - The shared use of utility structures by mutual agreement, between pole-owning utilities (typically electric power and ILEC telephone companies). Can also refer to licensed third party attachments by non-pole owning utilities (e.g. cable television and telecommunications providers) to utility owned poles.

Living Unit - A room or rooms comprising the essential elements for a single housekeeping unit. Facilities for the

preparation, storage and keeping of food for consumption within the premises shall cause a unit to be construed as a living unit. Those facilities need not be private from the living unit, but shall be conveniently accessible to the living area.

Lot - A part of a subdivision or any other parcel of land intended as a unit for building development or transfer of ownership or both. Parcels of land less than one acre for commercial projects or multiple family dwellings and parcels of land for each single family dwelling shall be considered lots.

Lot Line - The property line, abutting the right-of-way line, or any line defining the exact location and boundary of the lot or property.

Meter - The measuring device owned and installed by BPUB on a service line for the purpose of accurately measuring electric or water consumption by a customer.

Mobile Home – A factory-assembled structure or structures transportable in one or more sections that are built on a permanent chassis and designed to be used as a dwelling without a permanent foundation where connected to the required utilities and that include the plumbing, heating, air-conditioning, and electrical systems contained therein.

Mobile Home Park (Approved) - A parcel of property zoned under provisions of the applicable City or County zoning regulations whose allowed and recognized use is the business of renting spaces or lots upon which mobile homes are placed and occupied as single family dwellings and shall include any associated and allowed laundry and recreational and common facilities incidental thereto.

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Point of Delivery or Connection for Electric Service - See definition of "Electric Service."

Primary - That portion of the electric distribution system which delivers energy to the primary (high voltage) electric side of the distribution transformer from the substation or point of supply. Nominal voltages of the primary system are 2.4 kV and 12.5Y/7.2 kV.

Public Utilities Board - A common term used to identify the public utility providing electric, water and wastewater service that is owned by the City of Brownsville, Texas and operated by the seven-member Public Utilities Board as defined by the City Charter Article VI.

Secondary - That portion of the electric distribution system which distributes the energy from the secondary (low voltage) side of the distribution transformer to a pedestal at utilization voltage. Nominal voltages of these secondary systems are 120/240 volts delta, 240 volts, 208/120 volts wye, and 480/277 volts wye.

Service Lateral - Underground service conductors between an electrical source (i.e., transformer, pedestal, riser pole) and the customer's point of connection typically located outside a building wall.

Subdivision - A division of a lot, tract or parcel of land or water into two (2) or more lots, plots, sites or other subdivisions of land or water for the purpose, whether immediate or future, of sale, rent, lease, building development or other use, and which further includes the term "subdivide," meaning to divide land by conveyance or improvement into lots, blocks, parcels, tracts, or other portions.

URD - Underground residential distribution system or facilities.

1.2 TERMS AND CONDITIONS

1.2.1 Application for Service - It shall be unlawful for any person to use BPUB's electric, water or wastewater facilities without first making a written application to BPUB for service at a current electric or water meter installation at least forty-eight (48) hours before the service is desired and paying all charges incidental to such application, including line extension

fees and CIAC, if applicable. Such application shall constitute an agreement by the customer with BPUB to abide by the rules, regulations and policies of BPUB and ordinances of the City in regard to its service.

1.2.2 Ownership - No person shall by the payment of or causing any construction of facilities accepted by BPUB, acquire any interest or right in any of these facilities, or any portion thereof, other than the privilege to have their property connected thereto for electric, water and wastewater service in accordance with these procedures and regulations.

1.2.3 Continuity of Service - BPUB shall use reasonable diligence to provide continuous service, and having used reasonable diligence will not be liable to the customer for failure or interruption of service. BPUB shall not be liable for any act or omission caused directly or indirectly by strikes, labor troubles, accidents, and litigation, shutdowns for repairs or adjustments, interference by governmental agencies, failure of electric power, acts of God, or other causes beyond its control.

1.2.4 Indemnity to BPUB - The customer shall not hold BPUB responsible for any damage or injury to persons or property, in any manner directly or indirectly connected with or growing out of the transmission and use of electricity or water or the utilization of the wastewater system by the customer at or on the customer's side of the point of delivery or connection. BPUB shall not be liable to its customers or anyone else for any interruption to service, except where caused by BPUB's gross negligence or willful misconduct.

1.2.5 Protection of BPUB's Property - It shall be the customer's responsibility to properly protect BPUB's property on the customer's premises or easements and the customer will permit no one who is not an agent of BPUB to remove or tamper with BPUB's property. When service lines, meters, or other equipment are damaged by contractors, construction companies, governmental agencies or others, such damage will be repaired by BPUB and the cost of repair charged to the party or parties causing the damage. In the event of any loss or

damage to property of BPUB caused by or arising out of carelessness, neglect or misuse by the customer or by unauthorized parties, the cost of making good such loss or repairing such damage shall be paid by the customer.

1.2.6 Location of BPUB Facilities - BPUB will provide the location of underground facilities upon request. Customers, contractors, developers or others will be held financially responsible for any damage to BPUB's facilities.

1.2.7 Access to Premises - The duly authorized agent of BPUB shall have access to the customer's premises for the purpose of installing, maintaining, inspecting or removing BPUB's property for purposes incidental to, performance under, or termination of BPUB's service to the customer, and in such performance shall not be liable for trespass.

1.2.8 Obstruction of Meters - Customers and their agents (such as employees, contractors, etc.), are prohibited from placing any obstacles on or about electric or water meters, and other equipment which in any way obstructs free access to such facilities.

1.2.9 Right-of-Way - The customer shall grant or cause to be granted to BPUB without cost, all rights, easements, permits and privileges, which in the opinion of BPUB are necessary for rendering and maintaining service. See Appendices L and M.

1.2.10 Metering of Adjacent Properties - The customer will not build or extend his electric, water or wastewater lines across or under a street, alley, lane, court, avenue or other way in order to furnish service for adjacent property through one meter, even though such adjacent property is owned by the customer, unless written consent is obtained from BPUB. Consent may be given when such adjacent properties are operated as one integral unit, under the same name, for carrying on parts of the same business.

Separately owned properties shall not be supplied with electricity or water through one meter.

1.3 BILLING, COLLECTION, DISCONNECTION AND SERVIC POLICIES

The customer is advised to refer to BPUB's adopted policies on the above items which are contained in a separate document obtainable from BPUB's Customer Service office.

The applicant is obligated to comply with all Rates, Rules and Regulations of BPUB.

Bills rendered are due upon receipt. Payment must be made within 20 days from the date of the bill, unless a longer period is provided by applicable law, regulation or order. BPUB will apply a 5% penalty on bills not paid within this period or other amount determined by the BPUB Board of Directors.

The applicant will pay for all electric current and/or water passing through BPUB metered connections to premises from the date of occupancy/application, and until such time as the applicant/tenant notifies BPUB to discontinue the service(s). The above applies regardless of whether services are used or wasted or whether or not premises are occupied by the applicant/tenant.

BPUB reserves the right to discontinue service for causes as follows:

i. Using electric current for any purpose other than specified at the time of making the application unless a written request to do so has been made to BPUB.

ii. For non-payment of all or any portion of a bill.

iii. Tampering or interfering with BPUB property or rendering the same inaccessible to authorized BPUB employees.

iv. If service is discontinued for any of the above reasons, BPUB reserves the right to make a service charge for re-establishing service.

v. Noncompliance with BPUB power factor requirements. See section 3.12.16.

BPUB shall have the right at any time and without notice to suspend services for repairs, extensions and other necessary maintenance. BPUB shall not be held liable for any damage that may occur directly therefrom.

The applicant will be held responsible for the protection of all BPUB property in or on the premises or adjacent thereto. The applicant shall exercise all reasonable diligence to prevent loss or damage to said property.

BPUB reserves the right to bill the applicant for repair or replacement of damaged BPUB property, excluding ordinary wear and tear.

In the event that BPUB is rendered unable, wholly or in part, by force majeure or other causes herein specified to carry out its obligations under these Terms and Conditions to provide services, BPUB's obligations under these Terms and Conditions shall be suspended during the continuance of such inability. The term force majeure as employed herein means acts of God, such as fire, flood, earthquake or like acts of nature, wars, revolution, civil commotion, explosion, acts of terrorism or vandalism, embargo, acts of the government in its sovereign capacity, material changes of laws or regulations, labor difficulties, including without limitation, strikes, slowdowns, picketing or boycotts, unavailability of equipment or material, or any other such cause not attributable to the negligence or fault or reasonably within the control of BPUB.

BPUB disclaims all warranties, expressed or implied. In no event and under no circumstances shall BPUB be liable for any interest, loss of anticipated revenues, earnings, or profits, increased expense of operations, loss by reason of shutdown or non-operation of electric, water, or wastewater service, or for any consequential, punitive, indirect or special damages.

In the event that the applicant determines that there has been an overcharge error in billing, and if the date of discovery is within six months of the billing error occurrence, BPUB shall

calculate a billing adjustment. BPUB shall only calculate an adjustment for error(s) occurring within the previous six months of the date of any discovery of the billing error. If the applicant was undercharged, BPUB may back-bill the applicant for a period not to exceed six months, unless such undercharge was caused by the willful or intentional acts of the applicant. BPUB shall offer to the applicant a deferred payment plan option for the same length of time as that of the under-billing. If the applicant is a residential customer, the deferred payment plan will be offered if the under-billing is $25 or more. For commercial and industrial customers, the deferred payment plan will be offered if the under-billing is in the amount of $500 or more. However, if the undercharge billing was caused by the willful or intentional acts of the applicant, all sums owed by applicant shall become due and payable upon discovery of the undercharge.

Additionally, BPUB, pursuant to Texas Local Government Code Section 552.0025, as it may be amended or superseded, and the City of Brownsville's enabling Ordinance and BPUB Resolution, may impose a lien against an owner's property, unless it is a homestead as protected by the Texas Constitution, for delinquent bills for BPUB utility services to the property. The City, acting by and through BPUB, shall perfect any lien for delinquent utility charges in the Cameron County real property records by filing Notice of Lien containing the legal description of the property and the BPUB property/customer account number. The lien may include penalties, interest at 10%, attorney's fees and collection costs. While the City's lien is inferior to bona fide mortgage liens recorded before the City's utility lien, it is superior to all other liens. Refer to Appendices L and M herein for BPUB Forms associated with such liens.

Please refer to Appendix K for the Table of Approved Customer Service Fees.

CHAPTER 2 – GENERAL ELECTRIC SERVICE POLICIES

2.1 GENERAL ELECTRIC SERVICE POLICIES

2.1.1 Availability and Classification of Service - BPUB will supply electric service to any prospective customer within the corporate limits of the City and in the incorporated areas of Cameron County certified to BPUB by the Public Utility Commission of Texas, subject to the following conditions:

Pursuant to City Ordinance, Section 102-17, BPUB shall have the authority by contract to establish rates, terms and conditions for potential electric customers in its dual and multiply certificated electric service areas.

This policy is subject to applicable BPUB General Rules and Regulations in effect. BPUB will exercise its sole and exclusive discretion to address any potential conflict between provisions of the Rules and Regulations and any other BPUB policies or procedures.

To insure receiving electric service when needed, it is important that BPUB be contacted well in advance of the required service connection date. This service request should include such details as load, load factor, voltage, phase, etc. BPUB's engineers will review information regarding service availability and steps to be taken to make the desired service available.

Service requirements for installations at the usual secondary distribution voltages are contained in this manual. Installations which require higher distribution or transmission-level voltages are subject to negotiation between the customer and BPUB. These requirements are based upon the applicable provisions of the National Electrical Code as approved by the national provisions of the National Electrical Code as approved by the National Fire Protection Associations, the National Electrical Safety Code and American National Standard ANSI-C2. Additional requirements and recommendations are included for reasons of safety and convenience. Municipal and State requirements which may be greater than any contained in this manual or the above Codes or Standards will take precedence.

2.1.2 Application for Electric Service - In order to ensure that service is rendered at the time desired by the customer, it is necessary for the customer to apply for service as far in advance as practical.

a. When applying for service, the customer must provide street address, subdivision name, lot numbers or legal descriptions as necessary to locate the property.

b. The customer shall be responsible for providing proper identification at the service location prior to service being rendered. Failure to provide proper identification may delay service being rendered.

c. Service will be rendered only after the prevailing required deposits and fees are paid in full and inspection approved by the local inspection authorities. The coordination of the inspection of all electrical installations with local inspection authorities is the responsibility of the customer.

2.1.3 Type and Character of Service - Service is provided with alternating current at a normal frequency of sixty (60) hertz (cycles per second).

The voltage and number of phases which will be supplied depend upon the character of the load, its size and location. It is essential that the customer consult BPUB's Electric Engineering Department regarding type of service which can be furnished before proceeding with purchase of equipment or installation or wiring since the BPUB Electric Engineering Department will make the final determination as to the service provided.

BPUB provides three wire, single-phase service at 120/240 volts. Four wire, three-phase service is normally provided at 120/240 volts delta or 120/208 volts wye.

Three phase service at 277/480 volt wye may be provided by BPUB. For services less than 500 KVA, prior approval is required.

All services shall have a grounded neutral.

Higher service voltage can be provided depending upon size of customer's load and availability of BPUB facilities. The standard nominal primary voltages are the available voltages of sufficient capacity which will serve the customer's required load. They are as follows:

a. 7200 volt, 1 phase, 2 wire
b. 12470Y/7200 volt, 3 phase, 4 wire
c. 69,000 volt, 3 phase, 3 wire (as available)
d. 138,000 volt, 3 phase, 3 wire (as available)
e. 345,000 volt, 3 phase, 3 wire (as available)

2.1.4 Inspection and Codes - Wiring and electrical equipment of the customer shall be installed in accordance with the latest edition of the National Electrical Code and local inspection authorities. It is recommended that the installation be maintained in accordance with latest standards available.

The customer is cautioned against the purchase and use of electrical equipment that is not approved by a competent authority (such as Underwriter's Laboratories, Inc.).

Wiring installations within the City must be inspected and approved by the City's Electrical Inspector as required by law. Wiring installation outside of the corporate limits must be inspected by the County's duly authorized Electrical Inspector. BPUB shall make connection only after approval by the authorized inspecting authority. Questions regarding governing codes and ordinances should be directed to the appropriate inspection agency.

BPUB may refuse service to any new or altered installation, or disconnect service to any existing installation, which BPUB considers unsafe. BPUB will not be responsible in any way for any defect in the customer's wiring or for damage resulting from such defects.

2.1.5 Special Installations Connected to BPUB's System - Customer shall pay the cost of any special installation necessary to meet specific requirements for service at other than standard voltages, or for the supply of closer voltage regulation than required by standard practice.

When a customer requires a deviation from BPUB's standards, such as non-standard voltage, alternate circuits, special regulation, etc., the deviation must be approved by the BPUB Electric Engineering Department. BPUB reserves the right to determine what is standard at a specific location to serve a specific load.

Any special facilities, when installed in BPUB's system ahead of the metering point (on BPUB's side of the metering point) will be installed by the Customer at its own expense, or by BPUB at the customer's expense. Any approved transfer switch, manual or automatic, installed in BPUB's system ahead of the metering point will be paid for by the customer and installed, maintained, and owned by BPUB. A monthly maintenance charge will also be included.

BPUB will not be required to supply or continue to supply service to any customer where a portion of customer's service requirement is obtained from other sources, except when such service is covered by a contract. The customer will not sell the electricity purchased from BPUB to any other customer, company, or person, and customer will not deliver electricity purchased from BPUB to any connection wherein said electricity is to be used outside the customer's premises on which the meter is located.

2.1.6 Customer's Installation - All wiring and other electrical equipment furnished by the customer will be installed, operated, and maintained by the customer at all times in conformity with good electrical practice and with the requirements of the constituted authorities and the policies contained herein. BPUB does not assume responsibility for the design, operation, or condition of the customer's installation.

Service will be delivered to customer for each premise at one point of delivery to be designed by BPUB and to conform to BPUB's service standards. For mutual protection of customer and BPUB, only authorized employees of BPUB are permitted to make and energize the connection between BPUB's service wire and customer's service entrance conductors.

2.1.7 Modification and Additions - Connections to the customer's premises are made with service connections, meters, transformers and/or other necessary facilities to properly and adequately establish electric service to the customer's installation in accordance with the application. Therefore, no additions should be made to the customer's electrical installation without first notifying BPUB. Failure to provide such notification may affect the quality of the customer's own service and also that of other customers supplied from the same facilities.

To safeguard both the property of the customer and that of BPUB, the customer must not overload or over-fuse any service or branch circuit.

BPUB will, upon request, promptly remove all disconnected services and meters. When modification require the relocation of service drop wires, meters or metering and distribution equipment, the customer should make appropriate arrangements for the accomplishment of such relocation by BPUB, when the necessary wiring changes have been completed by the customer and inspection made by the local inspection authorities.

Service connections, meters or metering equipment, by law, shall not be removed or relocated except by employees of BPUB authorized to do such work.

Requests by a developer or customer for modifications to the existing electric distribution system must be approved by BPUB . The developer or customer will be responsible for any additional costs to BPUB for the implementation of such requests.

2.1.8 Reliability Improvements - BPUB may initiate reliability improvements at BPUB's sole discretion. Reliability improvements include, but are not limited to, overhead-to-underground conversions, meter service replacements / modifications, electric feeder construction (overhead or underground), direct buried primary re-cabling, and installation of equipment designed to improve system reliability.

In instances where modifications to the existing electric meter services are required to improve reliability, a determination by the BPUB Electric Engineering Department will be made as to whether BPUB will replace the customer's electric meter enclosures at no cost to the customer(s). In all cases, the limits of the no-cost provision will not apply past the load side of the meter terminals. Customer remains solely responsible for the operation, maintenance or condition of the customer's electric meter service.

2.1.9 Temporary Electric Service - Temporary service shall be provided for construction, fairs, or other similar temporary purposes. If temporary service is desired the customer must make request at least ten (10) business days in advance. The following also applies with regards to temporary service:

a. Temporary service billing will be accomplished under BPUB's General Service Electric Rate Schedule. A prepaid deposit shall be required and based on the estimated energy consumption for those customers who have not established satisfactory credit with BPUB.

b. Temporary service charges are made according to the cost of installation and removal of required facilities. The customer pays these charges. Appendix A contains a schedule of temporary service charges.

c. Requirements for temporary service from the overhead system are shown in Appendix B and from the underground system in Appendix C.

d. Advance payment will be required for the estimated cost of installing and removing those facilities not required for permanent service.

e. Term of service not to exceed one year.

f. Temporary installation of service entrance, meter, and other wiring shall be made and inspected in the same manner as permanent installation.

2.1.10 Owner's Consent to Occupy - As a condition to the establishment or provision of service by BPUB, customer must consent to provide BPUB with access to, and associated rights to use and occupy, customer's premise and facilities. BPUB may install and maintain equipment in, over and under the customer's property. If the customer is not the owner of the premises, or, if BPUB must extend service across adjacent properties not owned by customer, the customer will obtain the necessary easements or right(s)-of-way, in a form acceptable to BPUB, from the property owner(s) so that necessary or convenient equipment can be installed and maintained by BPUB over, under, and on said premises.

2.1.11 Metering - The electricity used will be measured by a meter or meters to be furnished and installed by BPUB. Bills will be calculated upon the registration of such meters. Meter installations will be in accordance with BPUB's service standards.

For the installation of BPUB's meters, the customer will install the necessary meter enclosure in a location designated by BPUB. The location should be adequate in size, accessible at all times, free from vibrations, and void of clutter and obstructions.

Meters will be tested as BPUB deems reasonably necessary. If a meter is found to be in error more than 2%, the customer is eligible to receive a billing adjustment of up to six months prior to the test date, covering all or a part of the period during which the meter was faulty.

Should BPUB's meters fail to register, the amount of electricity delivered to customer will be estimated by BPUB on the basis of the best available information.

2.1.12 Meter Relocation and Tampering - Metering equipment must not be altered, disconnected, removed or relocated except by BPUB personnel.

All meters and meter installation equipment are sealed by BPUB. Tampering with the meter, conductors carrying unmetered current, and the unauthorized breaking of BPUB's seals are prohibited by law.

The customer will install meter enclosures on the outside of buildings unless an alternate location has been agreed to by BPUB in advance.

BPUB must have access to the meter. Nothing may be installed to prohibit this access.

The customer is not permitted to install metered and unmetered conductors in the service entrance raceway.

2.1.13 Power Factor - Unless expressly disclosed and allowed by BPUB, the customer must maintain a power factor that is equal to or greater than 0.85. BPUB will not be required to furnish electric service to any customer with low power factor equipment. Low power factor is defined as below 0.85. Customers with connected power or heating equipment operating at low power factor, will furnish and install suitable corrective equipment to maintain a power factor designated by the BPUB Electric Engineering Department.

2.1.14 Protection of Service - BPUB will not be obligated to serve any customer equipment that BPUB determines has a detrimental effect on BPUB's systems or upon service to other customers. Customers that operate such equipment will be required to furnish and install any equipment necessary to limit voltage fluctuations, harmonics, pulsations or other detrimental effects so the operation of such equipment does not interfere with BPUB's systems or its customers. Where the interference

cannot be corrected, the use of such equipment must be discontinued.

2.2 GENERAL FINANCIAL POLICIES

2.2.1 Authority of General Manager and Chief Executive Officer - The General Manager and Chief Executive Officer or designee of BPUB shall have the authority to, in writing, waive the requirement of payment in advance for certain services offered by BPUB when deemed necessary to avoid a demonstrated undue financial burden upon an applicant for service; provided, however, the applicant shall sign an agreement providing for an alternative payment structure on a form approved by BPUB.

CHAPTER 3 – ELECTRIC SERVICES

3.1 GENERAL

a. Subject to the provisions on Availability and Classification of Service in Chapter 2.1, BPUB will provide, at no cost, overhead electric distribution facilities to the customer's service entrance weatherhead as long as no primary circuit extension is required. BPUB reserves the right to assess an Electrical Engineering Review and Design Fee on a per lot basis for administrative costs incurred (fees are noted on Appendix I - Review Fees Schedule). BPUB will always designate the location of the point of service within the customer's premise. BPUB will not assume responsibility for changing this point of connection if an improper location is made by the customer.

b. BPUB, at its own discretion, may utilize either front or rear lot lines for service.

c. The entire electric distribution system will be installed within easements dedicated to BPUB by the customer, or within public right-of-way.

d. Signs, billboards and other foreign objects in public rights-of-way and not specifically authorized to be in

public rights-of-way upon request by BPUB will be removed at the owner's expense.

e. In general, BPUB shall be responsible for:

i. Engineering and designing the electric distribution system.

ii. Providing construction plans and details for the installation of the electric distribution system.

iii. Furnishing, installing, connecting and maintaining all primary and secondary conductors (i.e., conductors that are installed from transformers to pedestals), transformers, poles and secondary pedestals.

iv. BPUB will provide overhead and underground residential service conductors and conduit systems.

v. Making high voltage and low voltage overhead connections at terminals, transformers and service entrances.

vi. Installing, maintaining and testing meters. BPUB will determine the type of metering to be installed.

vii. Maintaining the electric distribution system owned by BPUB.

viii. Designating the point of service, location of service wires, meter locations and transformer locations.

f. In general, the customer shall be responsible for:

i. Furnishing BPUB's Electric Engineering Department with a set of development plans

showing detailed layouts of all property lines, dedicated easements, landscaping, paving and drainage, water, wastewater, and any other underground facilities.

ii. Providing easements as specified by and at no cost to BPUB, including restrictions that would eliminate encroachments that may interfere with the installation, operation and maintenance of the electric distribution system.

iii. Clearing easements of all construction material, dirt piles, brush piles and other debris relative to building construction, and bringing site to final grade before BPUB begins installation of electric facilities.

iv. Supplying and installing temporary electrical service entrances for construction needs that meet the requirements of BPUB and the National Electrical Code and any fees or charges for temporary service as determined by BPUB.

v. Supplying and installing meter enclosures and approved conduit systems with no accessible raceways (e.g., gutter boxes, “LB” conduit filling or other lockable/not-lockable electrical cabinets) installed on the lineside of the meter socket(s).

vi. Providing mechanical protection (conduit) for underground services as directed by BPUB (if applicable).

vii. Providing appropriate points of attachment and support devices (e.g., house knobs, service mast guys, secondary brackets, etc.) for overhead service conductors to their premises.

Additional items specified in the individual Electric Distribution Policies contained herein or in customer-specific agreements

One Point of Service and One Service Voltage

As a standard service, BPUB supplies one point of service at one service voltage to a single building or point of service located on a single lot or tract of land. The electric service must be of sufficient ampacity and capacity to provide power to all buildings or structures located on the same single tract of land. Some exceptions allowing multiple point of service may be allowed depending on load size, building size, and building occupancy. Such exceptions must be approved by the City of Brownsville Engineering and Planning department and is subject to the provisions of **2.1.7. Modification and Additions.**

BPUB Line Extension Policy

A customer requesting new electric service will be charged all estimated costs for labor, materials and equipment required to modify existing infrastructure and to extend service from BPUB existing infrastructure to the customer point of service to serve the requested load, sometimes referred to as "Contributions in Aid of Construction" or "CIAC." This policy does not apply to all new request for electrical service submitted to BPUB Electrical Engineering before the adoption and approval of this document. The developer shall have the option to install its own extensions at BPUB's specifications, where applicable.

3.1.1 Overhead Services

a. Service Drop

i. Upon inquiry by the customer, BPUB will designate a location for the service drop wires and their point of attachment to a building. BPUB assumes no responsibility for changing the location of its service

drop attachments if an improper location is chosen without consultation with BPUB. BPUB further reserves the right to refuse to connect to any point of delivery that has not been located by a representative of BPUB. Generally, the point of delivery for overhead services will be located near the meter center, but BPUB reserves the right to locate the point of delivery at a distance from the meter center wherever it deems proper and the customer shall extend his service entrance conductors to this location.

ii. In general, the cap of the service must be above the service drop attachment and high enough to maintain vertical clearance to ground for the service conductors as follows:

10 feet – at the electrical service entrance to buildings, or at the lowest point of the drip loop of the building electrical entrance, or above areas or sidewalks accessible only to pedestrians, measured from final grade or other accessible surface only for overhead service drop cables supported on and cabled together with a grounded bare messenger where the voltage does not exceed 150 volts to ground.

12 feet – over residential property and driveways, and those commercial areas not subject to truck traffic where the voltage does not exceed 300 volts to ground.

15 feet – for those areas listed in the 12-foot classification where the voltage exceeds 300 volts to ground.

18 feet – over public streets, alleys, roads, parking areas subject to truck traffic, driveways on other than residential property and other land such as cultivated, grazing, forest and orchard (See Appendix D).

iii. If the type of building will not permit these minimum clearances, a service mast must be provided to obtain them. The recommended structure of this purpose is galvanized rigid steel service mast through the roof (See Appendix E). This mast must be sized accordingly and sufficiently braced and extended above the roof with the distance required to give adequate clearance for overhead service conductors. BPUB shall be consulted regarding the point of location of any service mast or other service structure before installation is started.

iv. Only one set of wire attachments should be installed on the customer's building for the service drop wires. These wires must not interfere with windows, doors, awnings or other parts of the building and must not be readily accessible to persons at windows and doors.

v. If service wires are to be installed on customer's building, the customer will install suitable anchorage bolts or spool racks. For commercial service loads, requiring instrument transformers, BPUB should be consulted for recommended provisions for service attachment (See Appendix F).

vi. The customer is required to provide BPUB safe and adequate structures for service

connections. In no case is BPUB responsible for the condition of any customer's buildings or structures to which service wires are attached or have been attached.

b. Service Entrance Conductors

i. To exclude moisture from the raceways for service entrance conductors or service cable, it is advisable to terminate them on the outside building wall at a point approximately 12" below the point of attachment of the highest service drop wire, so that the individual service entrance conductors will extend downward to the points where connections are made to the service drop wires (See Appendix D).

ii. Each conductor of the service entrance shall extend not less than three feet beyond the service head.

iii. The service entrance conductors shall consist of continuous lengths of individual stranded conductors approved for use in galvanized conduit, electrical metallic tubing, or aluminum conduit.

iv. It is required that all service entrance conductors be of sufficient size to carry the rated capacity of service entrance equipment. It is recommended that these conductors be of sufficient size to provide for reasonable future load increases. See the latest National Electrical Code for proper sizing information of service entrance conductors.

v. Conduit fittings with removable covers in the service conduit run are to be avoided. If

fittings are necessary, they shall not be concealed. Approved locked or sealable type covers are the only types permitted. All conduit threads and all fittings used in the service raceways are to be made rain tight with a suitable compound.

vi. The minimum conduit or electrical metallic tubing sizes for service entrances are shown in each of the standard drawings in the Appendix.

vii. In general, where no accessible common meter location is available for buildings (duplex houses, apartment buildings, etc.) separate sets of service entrance conductors are to be brought out to a common point on the building wall to be connected to a single service drop. In such cases, it is the Customer's responsibility to get approval from the applicable inspections department(s) prior to equipment installation.

viii. It is required that the neutral conductor of the service wiring be plainly identified in accordance with the National Electrical Code.

3.2 UNDERGROUND SERVICES

This policy applies to installation of underground residential electric distribution system (URD) where feasible from engineering, operation, and economic standpoint of serving general project types including but not limited to as indicated below:

- New residential subdivisions.
- Apartment complexes.
- Apartments.
- Mobile home parks.
- Commercial developments.
- Street lighting facilities in residential subdivisions.

- Service connections to individual residential or commercial customers from existing overhead facilities.

a. General Policies for Underground

i. New residential customers requesting underground service in areas with existing overhead distribution facilities will be charged all estimated costs for labor, materials and equipment required to modify the existing infrastructure. If an underground service lateral is requested, the customer will provide the trench and backfill, and BPUB will provide the conduit system and install the service conductor.

ii. Pursuant to the City of Brownsville-Unified Development Code Article 3.4.12, BPUB will provide underground electric distribution facilities for Developers of new residential subdivisions, so long as the Developer of the applicable new residential subdivisions covers all CIAC costs. The developer is responsible for providing conduits for all street crossings and trenching and back filling for all Service Laterals. General BPUB / Developer / Home Builder responsibilities are listed below:

a) BPUB may provide the trenching and backfilling for all primary and secondary cables at a cost to the Customer.
b) The developer will provide conduits for all primary and secondary cable street crossings.
c) The home builder, be it the developer, contractor or individual owner, shall provide the trenching and backfilling for the service lateral to the house.

d) The engineering type and placement of the electric distribution facilities will be at BPUB's discretion. In some instances where economical and practical, overhead wires may be required as a part of the overall system design.

iii. Customers requesting underground service for buildings with existing overhead service may have underground installed by BPUB by paying the CIAC of the conversion. The customer will be responsible for attaching schedule 80 or rigid conduit from the meter socket to a point 36" below grade. (In those cases where conversion is requested with an associated increase in service size, the customer may be required to pay the cost difference as outlined above.)

3.2.1 General Underground Electric Service Conditions of Service

i. URD will be made available in BPUB's service area where feasible from engineering, operation and economic standpoints.

ii. Below is a list of building classes and available URD Electrical service characteristics / restrictions:

a) Individual Secondary Metered Residential Units - single phase, 3 wire at a nominal voltage of 120/240.

b) Individual Secondary Metered Apartment Units or Commercial Buildings with single point service:

1) Single phase, 3 wire at a nominal voltage of 120/240.

2) Three phase, 4 wire at a nominal voltage of 208Y/120.

3) Three phase, 4 wire at a nominal voltage of 480Y/277.

4) Three phase, 4 wire at a nominal voltage of 240/120.

c) Commercial and industrial customers with primary meters shall have the number of phases and voltages as agreed upon.

d) The service for commercial and industrial customers shall be connected by BPUB and it is the responsibility of the customer to have phases properly marked and coordinate the connection with BPUB.

iii. BPUB reserves the right to designate the location of each point of service. In apartment complexes the URD system will be designed to provide a cost-effective distribution system that provides services to all dwellings. In some cases, one transformer may serve more than one building.

3.2.2 URD Apartments and Multiple Family Housing

i. To insure reliability of service to all consumers in apartment and multiple family housing developments:

a) Developer will provide adequate overcurrent protection to individual customers.
b) Generally, underground service conduits and conductors shall be installed and owned by the customer

between the customer's building and BPUB's transformer if multiple individual meters are used. In projects where meter centers are used, BPUB may opt, in its sole and exclusive determination, to install and maintain the secondary conductors.

c) The customer shall also install the pad for the transformer and two primary conduits one foot (1') from the edge of the existing pad or elbows for new construction, in accordance with BPUB standards.

ii. The developer will provide BPUB an adequate easement at final grade. The easement shall be clear of trees and other obstructions with all property corners staked before construction of URD system begins.

iii. Location of underground facilities other than URD installed by or for the developer or builder shall be designated by the developer prior to construction of the URD.

iv. Any rearrangements in the electric distribution system which may be required by the developer after installation of distribution system shall be paid for by the developer.

3.2.3 Underground Electric Service for Commercial Developments

v. BPUB will furnish and install the following low voltage equipment:

a. Primary switch enclosures, transformers, secondary pedestals, and associated equipment.

b. Any overhead distribution required to provide underground electric service.

vi. For commercial underground electric services, BPUB will require the customer / developer to provide service conductors and conduits, transformer pads, primary conduits one foot (1') from the edge of the existing pad or elbows for new construction, and connectors, in accordance with BPUB standards. The customer will provide trenching and backfilling for primary and service conductors.

vii. Developer will pay for any temporary construction required and for removal and rearrangement of any existing overhead facilities in area being developed. All underground construction will be in accordance with the latest standards of BPUB which shall equal or exceed those of National Electrical Safety Code.

3.3 RESIDENTIAL ELECTRIC SERVICE POLICIES

The electric distribution system will normally be fed from overhead primary feeders located somewhere near the vicinity of the designated point of service. In those cases, where BPUB requires overhead main feeders on underground projects, the developer may, at his option, pay the cost for the underground service provided that BPUB determines that the requested design modifications are in-line with best design / engineering practices.

Streetlights in areas with overhead electric distribution will normally be fed from overhead circuits. Streetlights in areas with underground electric distribution will normally be fed from underground circuits. While handled under separate policy (Street Lighting Policy in Section 3.7), street lighting should be designed and coordinated with the installation of the electric distribution facilities. Developers should contact BPUB's Electric Engineering Department and make necessary provisions for streetlights.

Temporary service for construction purposes will be made available at each lot in the development. Temporary service

boards shall be located as designated by a representative of BPUB. Temporary service will be provided under the provisions of the Temporary Electric Service, Section 2.1.9.

The electrical distribution system will be designed to permit the installation of minimum lengths of primary and secondary conductors and to maintain good transformer utilization. Transformers, poles, secondary pedestals, and meter locations will be specified by the BPUB Electric Engineering Department as part of the electric system design.

Three phase electric service will not be provided for residential electric services.

BPUB shall provide and install all residential secondary service conductors from transformers or secondary pedestals to meter enclosures for underground services, or weatherheads for overhead services.

For Mobile Home Parks the developer will provide meter pedestals (single or ganged) that meet the specifications of BPUB. BPUB will install and make up the line side and ground connections. The customer is responsible for maintaining the pedestals. BPUB will not service any mobile homes located under primary and secondary lines.

3.4 MULTIPLE FAMILY HOUSING ELECTRIC SERVICE POLICIES

The electric distribution system will normally be fed from overhead primary feeders located at a location approved by BPUB. In those cases, where BPUB requires overhead main feeders on underground projects, the developer may at his option, pay the cost for underground service.

Streetlights in areas with underground electric distribution will normally be fed underground. While handled under separate policy (See Street Lighting Policy in Section 3.7), street lighting should be designed and coordinated with the installation of the underground electric distribution facilities. Customers should contact the BPUB Electric Engineering Department and make necessary provisions for streetlights.

Temporary service for construction purposes will be made available as required by the customer. Temporary service will be provided under the provisions of the Temporary Electric Service Section in Section 2.1.9.

The electric distribution system will be designed to permit the installation of minimum lengths of primary and secondary conductor and to maintain good transformer utilization. Transformer, secondary pedestal and meter locations will be specified by the Electric Engineering Department as part of the electric system design.

For customer URD requirements refer to the URD Apartments and Multiple Family Housing provision in Section 3.2. Primary metering is not available for multi-family housing installations.

3.5 COMMERCIAL AND INDUSTRIAL ELECTRIC SERVICE POLICIES

The electric distribution system will normally be fed from overhead primary feeders located somewhere near the vicinity of the designated point of service. In those cases, where BPUB requires overhead main feeders on underground projects, the developer may, at his option, pay the cost for the underground service provided BPUB agrees that undergrounding this main feeder is in keeping with good engineering design practices.

Temporary service for construction purposes will be made available as required by the developer. Temporary service panels shall be located as designated by a representative of BPUB. Temporary service will be provided under the provisions of the Temporary Electric Service, Section 2.1.9.

Bus duct will be specified for service over 2000 amperes. Services over 2000 amperes may also be required to utilize padmount transformers and underground primary conductors.

BPUB will install the primary electric distribution system only. For more information on underground electric service requirements for commercial developments refer to the

Underground Electric Service for Commercial Developments provision in Section 3.2.3.

3.6 RENTAL SECURITY LIGHTING POLICIES

3.6.1 Purpose - Rental lighting shall be provided solely for security purposes. It shall not be designed to display products, architecturally illuminate buildings, or light athletic fields. Illumination levels shall normally be restricted to an average of one-half foot candle.

3.6.2 Availability - BPUB shall provide rental security lighting on existing facilities inside and outside the corporate limits of the City to any customer requesting this service, provided, however, that the premise owner must be the customer of the rental security lighting service. For example, a tenant of a multifamily dwelling will be directed to the premise owner regarding the need for lighting to address safety and security concerns and the requirement that the premise owner request the service. Residential properties can have security lighting installed subject to BPUB approval, security lighting for residential properties may be installed on new or existing BPUB poles located nearby. This schedule shall be applied for service supplied in the lighting of outdoor areas by means of high intensity discharge (HID) lamp fixtures, which consist of high-pressure sodium vapor (HPS) and metal halide vapor (MH) fixtures. This schedule shall also apply to light-emitting diode (LED) light fixtures or such other fixtures as may be approved by BPUB in the future. Fixtures shall be operated by photo-electric control to provide lighting service from dusk to dawn, approximately 4,000 hours per year. All new rental security lighting shall be LED light fixtures. Existing HPS and MH fixtures will be replaced with LED fixtures when maintenance requires replacement.

3.6.3 Available Lighting Units / Light-Emitting Diode (LED)

a. Area Lights - Light-Emitting Diode (LED)
   100 Watt HPS Equivalent – Range (40W – 50W)
   250 Watt HPS Equivalent – Range (120W – 125W)
   400 Watt HPS Equivalent – Range (185W – 252W)

b. Directional Flood Lights – Light Emitting Diode (LED)
100 Watt HPS Equivalent – Range (40W – 50W)
400 Watt HPS Equivalent – Range (120W – 200W)
1000 Watt HPS Equivalent – Range (252W)

3.6.4 Billing - BPUB shall include the applicable rental and energy charges, as shown on Section 102-218 of the Brownsville Code of City Ordinances, in the customer's monthly bill. Charges shall be separately itemized and shall be based on the actual equipment installed in accordance with the rental security light rate schedule.

3.6.5 Fuel Cost Adjustment - The fuel, purchased energy and marketing (FPEM) charge is set subject to the provisions of Section 102-193 of the Brownsville Code of Ordinances.

3.6.6 Maintenance - BPUB shall provide all normal maintenance necessary to satisfactorily operate lights during nighttime hours. BPUB shall normally repair rental light outage within ten business days after notification.

3.6.7 Relocation or Change - BPUB shall, upon request by the customer, relocate or change any of its facilities used in rendering service hereunder provided that the change is practical and permissible. Payment by the customer of all anticipated costs shall be required before work is undertaken.

3.6.8 Special Provisions:

a. In the event that the customer cancels service prior to the termination of his 48-month agreement, the customer shall be required to make a non-refundable payment for the balance of the term up to a maximum of 12 months. This non-refundable payment may be waived by BPUB if the 48-month agreement has expired.

b. The customer shall be required to pay extraordinary costs associated with primary or secondary line extensions to the designated point of service. This

would include costs for material and labor beyond one span of primary or secondary construction.

c. BPUB, upon request, shall locate and aim the fixture for the customer whenever locations and aiming are not in conflict with good lighting practices.

d. All security lighting shall be subject to good lighting practices as set forth in the Restrictions Section of Subsection C of this Security Lighting Policy.

3.6.9 Restrictions:

a. Residential customers shall be limited to the following lamps:

	Type of Lamp	HPS Watt Equivalent	Watt Range
Area Light	Light-Emitting Diode	100	40W – 50 W
	Light-Emitting Diode	250	120W – 125W
	Light-Emitting Diode	400	185W – 252W
Directional	Light-Emitting Diode	100	40W – 50W
	Light-Emitting Diode	400	120W – 200W

b. Commercial customers shall be limited to the following:

	Type of Lamp	HPS Watt Equivalent	Watt Range
Area Light	Light-Emitting Diode	250	120W – 125W
	Light-Emitting Diode	400	185W – 252W
Directional	Light-Emitting Diode	100	40W – 50W
	Light-Emitting Diode	400	120W – 200W
	Light-Emitting Diode	1,000	252W

c. No rental security shall be allowed to reflect light that would interfere with a neighbor's privacy or cause hazardous driving conditions.

d. BPUB may permit other fixture types and sizes as may be necessary and convenient for BPUB to continue to provide this service, and the rental charges for any unlisted fixture shall, as provided by ordinance, be based upon the fixture listed in the ordinance that most closely approximates the characteristics of the unlisted fixture, as determined

by BPUB to be appropriate, and will require staff approval in writing.

3.7 STREET LIGHTING POLICY

3.7.1 Availability - Street lighting service shall be provided to public streets, highways, alleys, parks and other public grounds by means of lamps installed on either (a) overhead fixtures supported by poles of BPUB's existing distribution system, or (b) ornamental standards conforming to BPUB lighting specifications. Service shall be made available upon request by the Brownsville City Manager or the Director, Department of Traffic, provided that such request complies with standards contained in this policy. BPUB shall be responsible for the installation, energization, and lamp replacement of all streetlight fixtures, with the exception of any that are customer-owned.

3.7.2 City Service Provision - BPUB shall provide free unmetered electric service to public streetlights and free metered electric service to traffic light facilities for the City of Brownsville provided that the consuming facilities are in accordance with Ordinance No. 947 which states that, "no free service shall be furnished directly or indirectly, by the system to any person, firm, corporation or other entity, except for bona fide municipal purpose to the City and then only after such free service is duly specifically authorized by resolution of the City Commission."

3.7.3 Reserved Rights:

3.7.3.1 Brownsville Public Utilities Board

1. BPUB shall reserve the right to energize streetlights in all subdivisions on a section-by-section basis. which shall be determined by BPUB based upon the building activity in any particular section at a given time. Lighting service will not normally be provided in sections more than 500 feet from residences. Additional sections will be lighted when warranted by further development.

2. Service shall be delivered to street and traffic lights at a point that shall be designated by BPUB and shall conform to BPUB's service standards.

3. Only authorized employees of BPUB, shall be permitted to make or energize the connections between BPUB's service wires and the street or traffic lighting system of the City of Brownsville. The City of Brownsville shall not authorize any extensions of the lighting system without written approval from BPUB.

4. BPUB shall reserve the right to replace lighting fixtures in place prior to October 1, 1979, deemed unsafe or not providing illumination in accordance with standards contained herein.

3.7.3.2 City of Brownsville

1. The City reserves the right to control any and all new street or alley light installations. No new lights will be added to the system without approval from the City Commission or their designated representative.

2. The City reserves the right to approve any major modification to the existing street lighting systems. Any changes which will result in any increase to the monthly schedule of charges paid by the City will require approval by the City Commission.

3.7.4 New Installations:

3.7.4.1 Subdivisions - After approval by the City Manager or his/her designee, streetlight installations in new subdivisions shall be paid for by the developer or customer. Payment of all anticipated costs for materials, designs and installation of the system shall

be required before the work is undertaken (See Appendix J). After being placed in service, each unit shall be operated and maintained by BPUB with billing based on a flat monthly operating and maintenance rate that shall be paid by the City of Brownsville.

3.7.4.2 Existing Streets and Alleys - The City Manager of the City of Brownsville or his/her designee will notify BPUB in advance of any service requirement so that BPUB can schedule installation and connections to the secondary distribution system. BPUB will provide the City of Brownsville with documentation that such requests have been fulfilled. Such documentation will include type of service, location and date installed. After being placed in service, each unit shall be operated and maintained by BPUB with billing based on a flat monthly capital recovery, operating and maintenance rate that shall be paid by the City of Brownsville.

3.7.4.3 System Improvements - System improvements to the street lighting system shall be made as needed and in accordance with sound illumination engineering and industry accepted practices.

3.7.5 Street Lighting Maintenance:

3.7.5.1 Routine - BPUB shall provide all normal maintenance necessary to satisfactorily operate street and alley lights during nighttime hours. BPUB will repair and / or maintain street lighting generally within ten business days from the time the light was reported to be non-functional. Typically, streetlight maintenance shall occur during normal operating hours; however, this is not limitation on BPUB activity. Additional maintenance time for streetlight repair and / or maintenance may be needed for streetlights that that require permits / traffic control

plans (e.g., for lights located on Major Thoroughfares) or for crew operations.

3.7.5.2 Emergency - BPUB shall have personnel available to provide maintenance to the street lighting in the event of a major failure, i.e.: entire roadway street lighting inoperative, lightning strikes, main breaker failure, hot wires down and traffic accident damage to the system. Emergency repairs will be coordinated and conducted by BPUB personnel in light of the overall circumstances and conditions then-present.

3.7.5.3 Lamp Replacements - High pressure sodium lamps may not be co-mingled with mercury vapor lamps. The group replacement method will be employed, i.e., all lamps at an intersection or an entire block at one time will be replaced.

3.7.5.4 Accidents – The City of Brownsville Traffic Department will provide BPUB's Safety Section with copies of traffic accident reports where damage to the street lighting system has been done. It shall be the responsibility of BPUB to seek restitution for damages done to the system from the person or persons responsible.

3.7.6 Street Lighting Standards:

100 Watt HPS & 100 Watt HPS Equivalent LED -
General residential and commercial alley:
125' to 175' spacing

250 Watt HPS & 250 Watt HPS Equivalent LED -
Light commercial and high density residential apartment projects and subdivisions and City owned roads: 185' to 250' spacing

400 Watt HPS & 400 Watt HPS Equivalent LED -
Heavy commercial and/or heavy traffic areas including boulevard lighting:

260' to 350' spacing

1000 Watt HPS -

This is for freeway lighting only nominal spacing approximately 250'
1 per intersection on all residential streets.
4 per intersection at all major arterial crossings.

3.7.7 Accounting:

3.7.7.1 Billing - The City of Brownsville shall be charged a flat monthly rate for each streetlight in service. Such charges are to be computed in accordance with rate structures as shown on Section 102-204 of the Brownsville Code of City Ordinances. The rate shall include all operating and maintenance charges and a capital recovery factor for new lights placed in service after October 1, 1979, if applicable, and shall vary with each unit according to the type and size of lamp that is installed. This charge shall not include any demand or energy (free service) related cost. Monthly charges shall be based on inventory of street and alley lights in service as of October 1, 1979, plus approved service installed after that date.

3.7.7.2 Metering - All traffic signals shall be metered and shall conform to the metering requirements as contained in this Policy. Streetlights need not be metered, but BPUB shall reserve the right to meter any streetlight to assure consumption accuracy.

3.7.7.3 Special Provisions - The City shall be required to pay extraordinary costs associated with primary or secondary line extensions to the point of designated service.

3.7.7.4 Reports - BPUB shall provide the City Manager and Director of the Department of Traffic with a monthly report of street lighting which will show all charges to the inventory of streetlight and alley lights within the City. The base month

for this report will begin with the inventory of lights in existence as of October 1, 1979. The report will include all additions to the system showing date, location and size of service installed.

3.8 TRANSFORMER PADS
(for other than residential service)

Where conditions are such that it is necessary to install a pad mounted transformer adjacent to a building on the customer's premises, the customer will install the concrete pad for the transformer and the two primary conduits. The customer will also install the secondary conduits, secondary conductors, and secondary connectors from the transformer into the service entrance equipment.

The customer shall in all cases consult BPUB regarding location and construction of the pad and conduit before detailed plans are completed.

The customer shall install underground service conduit and cable from the building service entrance equipment to the concrete pad. Service cables shall extend above the concrete pad surface. Primary cable connections to the transformer will be made by BPUB. For secondary metered services, secondary cable connections to the transformer will be made by BPUB. For CT-rated metered services, the customer will be responsible for secondary cable connections to the transformer.

The pad and underground primary conduit shall be constructed in accordance with BPUB specifications and so located that they will be easily accessible for installation, maintenance and removal of the pad mounted transformer.

The pad shall be located with respect to building doors, windows, fire escapes, etc., in compliance with the National Electrical Code and prevailing local ordinances.
In all cases, necessary easements, on BPUB forms, shall be executed and delivered to BPUB. See Appendix A.

3.9 GROUNDING

All residential services which have a neutral conductor are configured with the neutral wires grounded for protective

purposes. This grounded neutral conductor shall be run to each service disconnecting means and shall be bonded to each disconnecting means enclosure. This conductor shall be routed with the phase conductors and shall not be smaller than the required grounding electrode conductor and shall be sized in accordance with the requirements of the then-current National Electrical Code.

The grounding electrode conductor will be connected to a grounding electrode with a resistance to ground of 25 OHMs or less. This grounding electrode conductor shall be sized in accordance to the then-current National Electrical Code /or updated subsequent tables of the National Electric Code titled "Grounding Electrode Conductor for Alternating-Current Systems."

Water pipes will not be used for grounding purposes. A ground rod will be used at each meter location and the ground resistance shall not exceed 25 OHMs.

BPUB normally grounds the midpoint of one of the transformers in a three phase, four-wire delta connected transformer bank.

In all commercial and industrial applications, the neutral conductor size shall be sized in accordance with the requirements of the then-current National Electrical Code and reviewed and approved by the BPUB Electric Engineering Department.

3.10 METERS AND METERING EQUIPMENT

3.10.1 General:

a. BPUB supplies and installs, at its own expense, electric meters to measure the electric power used by the customer. Only duly authorized personnel of BPUB or persons authorized by BPUB shall set or remove, turn on or turn off, or make any changes to BPUB meters.

b. Customers are subject to immediate discontinuance of service, applicable fines, prosecution under the

laws of Texas, adjustment of prior bills for services rendered, reimbursement to BPUB of all extra expenses incurred on customer accounts, and any other fee, charge, expense or remedy provided at law or in equity, if there is an indication or evidence of:

i. Unauthorized connections
ii. Tampering with BPUB meters
iii. Tampering with associated metering equipment
iv. Tampering with meter seals

c. BPUB, shall also supply and install, at its own expense, instrument transformers of proper size and type.

d. BPUB-approved meter enclosures, meter centers, meter enclosures, and current transformer cabinets shall be furnished, installed and maintained by the customer. BPUB assumes no responsibility for maintenance but reserves the right to lock or seal all enclosures containing metered or unmetered conductors or bus.

e. Metering conduit from transformer locations to meter enclosures shall be as specified by BPUB's Electric Engineering Department. Metering conduit shall be supplied and installed by the customer to BPUB's then-current specifications.

f. The customer is responsible for supplying and installing meter enclosures and approved metering equipment meeting BPUB's specifications in the event of damage due to the weather, mechanical injury, loose connection, or overload. Service to a replacement meter enclosure will not be reconnected until approved by local inspection authorities.

g. Except for factory built cubicles, all secondary metering conductors shall be in a conduit exclusive of any other conductors.

3.10.2 Number of Meters - All electric services will be metered by a single meter installation for each point of delivery. BPUB will establish one point of delivery for each customer. Two or more points of delivery shall be considered as separate services and billed for each point of delivery.

3.10.3 Location of Metering Equipment:

a. The location of meter and metering equipment shall be approved by the BPUB Electric Engineering Department and be in compliance with the BPUB Rules and Regulations and Policies. In most cases this electrical meter shall be located on the customer's facility.

b. A meter that does not require a current transformer shall be located ahead of the service disconnecting means.

c. Current transformer cabinets will be located on customer's building in a readily accessible area for BPUB personnel. Current transformer space may be provided for underground services in the customer's main service panel or the current transformer cabinet may be located directly beneath the main service panel. Overhead current transformer cabinets will be located adjacent to the BPUB-approved point of service on the customer's premise.

d. All metering equipment shall be located outdoors in a readily accessible space which shall be kept free from obstructions at all times, including fences, for service by BPUB representatives. All outside meter enclosures shall maintain a maximum of six (6) feet and a minimum of five (5) feet lateral clearance to

driveways unless protected by a structural part of the building.

e. All signboard meter enclosures shall be installed in such a manner that will place the meter facing the nearest street or highway.

3.10.4 Location of Primary Metering Equipment - The physical location of a primary metering installation shall be determined by the BPUB Electric Engineering Department.

3.10.5 Location of Metering Instrument Transformers:

a. Metering transformers will be installed in a location determined by the BPUB Electric Engineering Department. In most cases current transformers will be located on the building that they serve.

b. Where 4-wire 3-phase delta metering is used, the high phase shall be permanently identified at the weather head.

c. Three phase pad mount transformer installations will have metering current transformers installed on the secondary spade terminals only with prior approval of BPUB. In most cases these current transformers will be mounted on the facility they service.

3.10.6 Identification of Meters - All meter enclosures or enclosures on multiple occupancy dwellings or commercial services requiring the use of more than one meter shall be clearly and permanently identified as to street number, apartment number or building section which that meter serves.

3.10.7 Meter Sizes - All installations which will have rated capacity of 320 continuous amperes or more should be reviewed with the BPUB Electric Engineering Department to determine if self-contained meters or current transformer type metering will be used.

3.10.8 Meter Tests and Adjustments of Billings for Failure of Meter

a. The BPUB Electric Meter Shop will verify the accuracy percentage.

i. If accuracy falls within the standard 98% - 102% range, no further action is required and the meter may continue to be used.

ii. If accuracy falls outside the standard 98% - 102% range, the electric meter is replaced with a new meter that will also be field tested for accuracy. During this time, BPUB's Billing Department will be notified to follow up and take the necessary actions to either recover or credit the customer based upon the meter's inaccurate reading.

3.11 SERVICE EQUIPMENT

3.11.1 Location:

a. Service Equipment (i.e., service circuit breaker or switch) should be located in a readily accessible place and as close as practical to the point where the service entrance conductors enter the building.

b. In residences, the required location for the service equipment is at a readily accessible point nearest to the entrance conductors, either inside or outside the building wall.

c. Consideration should be given to location branch circuit protection devices on the same floor served by the circuits. The use of such sub-distribution centers fed by suitable feeder circuits will result in short final branch circuits and greatly improve voltage regulation.

3.11.2 Interrupting Capacity of Protective Devices - BPUB will supply necessary information pertaining to

maximum fault current conditions at the customer's location at the time of installation. BPUB will not, however, assume responsibility for the failure of protective devices due to an increase in the fault current characteristics caused by a change in the system.

3.11.3 Polyphase - Automatic circuit breakers are preferred for this class of service because of the convenience in immediately restoring service when the circuit protection operates, thus preventing expensive machine outages for any considerable periods of time. Fused type of equipment, however, is acceptable.

3.12 CUSTOMER UTILIZATION EQUIPMENT

3.12.1 General - BPUB builds and maintains electrical facilities to supply electric service to BPUB customers that meet or exceed industry standards

3.12.2 Specifications and Regulations for Customer Equipment - BPUB only specifies equipment requirements that are necessary to be able to supply BPUB customers with safe and reliable electrical service. BPUB has promulgated the following regulations covering the more common installations of utilization equipment. Customers should consult BPUB for additional details on special equipment which may not be covered in the following sections.

3.12.3 Motors:

a. The protection of motors is the responsibility of the customer. The following recommendations apply to all motors connected to BPUB's system.

b. The National Electrical Code provides that all motors be equipped with suitable starting switches having overload protection in motors or switches. For three phase motors the National Electrical Code requires three running overcurrent protective devices.

c. BPUB recommends the use of reverse phase and phase failure relays supervising motor closing circuits to prevent damage to motors that cannot be

safely reversed or that could be damaged by phase failure.

d. BPUB recommends low voltage relays and phase imbalance relays in the motor's trip circuit to automatically disconnect all motor installations where damage would occur due to prolonged exposure to these type of events / conditions.

e. Customer shall provide the necessary surge protective equipment necessary to protect motors from lightning and switching surges.

f. All single phase motors should be connected for 230 volts whenever it is practical to do so in order to minimize voltage drop in the customer's wiring system and BPUB's supply system.

3.12.4 Welders and Furnaces - It is absolutely essential in all cases that the customer consult with BPUB concerning the electrical supply of electric welders or arc furnaces before any commitments for their purchase or installations are made.

3.12.5 Appliance Connections:

a. Appliances having one or more elements whose collective rating is less than 1440 volts amperes may be served by 120-volt circuits in dwelling units, motels, and similar occupancies.

b. Circuits exceeding 120 volts, nominal between conductors and not exceeding 277 volts, nominal, to ground shall be permitted to supply cord and plug connected or permanently connected utilization equipment, such as, heaters, clothes dryers, window A/C units, electric ranges, etc.

c. All cord and plug connected smoothing irons and electrically heated appliances that are rated of more than 50 watts and produce temperatures in excess of 121ºC (250ºF) on surfaces with which the cord is

likely to be in contact shall be provided with one of the types of approved heater cords listed in Table 400-4 of the National Electrical Code.

3.12.6 Special Apparatus - It is necessary that the installation of power equipment not covered in this section, such as X-ray, radio broadcasting stations, high frequency heat treating, television transmitters, etc., be referred to BPUB for advisement before any commitments for purchase or installations are made.

3.12.7 Power Factor:

a. For any load, it is economically important to maintain a power factor as near unity as possible. The maintenance of a high-power factor may result in the reduction of conductor and equipment capacities and operating costs. Where the customer has power or heating equipment that operates at a low power factor, the customer, when requested to do so by BPUB, will furnish at his own expense, suitable corrective equipment to maintain a power factor of 90 percent or higher.

b. No gaseous tube or other types of lighting equipment will be served by BPUB if its power factor is less than that of presently available good quality high power factor equipment. If power factor corrective equipment is made necessary by this specification, it will be provided and maintained at the customer's expense. This applies to all new installations and any changes in the existing installation.

c. BPUB recommends the installation of capacitors as power factor improvement devices.

3.13 CLEARANCE REQUIREMENTS

3.13.1 Radio and Television Antennas

a. Antennas for radio, radio transmitter, and/or television sets must never be erected over, under, or in proximity of either side of BPUB's power lines or

other wires carrying electric current, nor should they be constructed in such a place where they may accidentally fall into energized wires.

b. To do so may result in serious accidents, damage to the equipment, or poor reception. Where proximity to electric power service conductors cannot be avoided, the latest National Electrical Safety Code requires a clearance of at least 3 feet and a half foot minimum clearance for circuits 0 to 750 volts and eight feet for circuits 750 volts to 22 kilovolts. The attachment of antenna systems to poles carrying BPUB's conductors is strictly prohibited due to the possibility of serious results from accidental contacts. Such attachments will be removed immediately upon discovery by BPUB.

c. BPUB will require all applicable horizontal and vertical clearances to meet or exceed National Electrical Safety Code requirements.

3.14 MISCELLANEOUS

3.14.1 Pole Attachments - Corporations, governmental agencies, subdivisions and businesses who have need and desire to attach their facilities or equipment to BPUB's poles and property may do so only under contract. The fee for such contract shall be determined using the latest BPUB approved pole attachment rates. Joint facilities use agreements between BPUB and applicant shall be executed before authorizing any pole attachment. BPUB will not be responsible for damage to any unauthorized equipment or facility owned by others on BPUB poles for any reason.

3.14.2 Lightning Arresters - Lightning arresters for services at secondary voltages are not required by BPUB. In addition, BPUB does not install or provide arresters for the customer's equipment. When lightning arresters are installed by the customer, they shall be connected to the customer's facilities on the load side of the customer's protective equipment.

3.14.3 House-Moving - Whenever a house or other oversized loads are to be moved along streets over which electric wires

are strung, BPUB must be advised in advance of the time and the route over which the structure is to be moved. A serviceman will then be dispatched to accompany the moving. Under no circumstances shall anyone other than authorized employees of BPUB remove, cut, raise or handle any wires in connection with the moving of a structure. The customer is responsible for contacting BPUB in advance and will be invoiced for all expenses incurred by BPUB.

3.14.4 Auxiliary Generators - If a customer installs an emergency generator that has the potential to affect BPUB's system, a BPUB-approved switching and control circuit must be provided in the service equipment to preclude the possibility that any energy generated by customer's equipment might energize the BPUB's system, thus endangering the lives of BPUB employees who may be working on the lines.

Such auxiliary generators and their associated equipment shall not be installed without prior written approval from the BPUB Electric Engineering Department.

3.14.5 Ground-Fault Protection - All 15- and 20-Amp receptacle outlets on single phase circuits for construction sites shall have approved ground-fault circuit protection for personnel safety.

3.14.6 Large Load Interconnections

i. During interconnection request for loads exceeding 10MW, BPUB Electric Engineering will coordinate with Developers and Customers of End-User Facilities through its internal process for studying Transmission System impacts of new and Materially Modified End-user Facilities.

ii. Before an End-User Facility interconnection or Material modification study can begin, a study agreement between BPUB and the End-User must be executed. See Retail Service Study Agreement (Appendix N).

iii. Once an End-User Facility Interconnection or Material Modification study is executed, the BPUB Electric Engineering Department must complete the corresponding study in accordance with the study scope and within the timeframe stated in the study agreement.

iv. End-user Facility Interconnection or Material Modification studies shall include a steady state analysis and may require the following other study components depending on the engineering judgment of the BPUB Electric Engineering Department management and staff:

1. Motor Starting/Voltage Sag Study
2. Fault Current Study
3. Stability Study
4. Facility Study

v. Assuming the commercial/industrial Applicants elects to proceed with the proposed End-User Facility Interconnection or Material Modification, BPUB will develop a drafted term of service for provision to the End User.

3.14.7 Generation Interconnection

a. Generation interconnection requests greater than 10 MW within BPUB transmission will require BPUB to perform the Full Interconnection Study (FIS). An FIS study analyzes the impact of interconnecting the Project to the ERCOT transmission system at the location indicated by Customer.

b. The FIS will adhere to section 5 of the ERCOT Planning Guide (“ERCOT Procedure”), NERC Reliability Standard FAC-002, the ERCOT Planning Criteria, BPUB’s Transmission

Planning Criteria, and BPUB's Facility Connection requirements.

c. Before a generation interconnection can begin, a study agreement between BPUB and the Interconnecting Entity must be executed. See Full Interconnection Study Agreement (Appendix O)

d. The BPUB Electric Engineering Department shall summarize the results of the required studies as determined by ERCOT, in a report and provide recommendations if necessary to accommodate the Generation Interconnection or Material Modification.

e. Assuming the Interconnecting Generation Entity elects to proceed with the proposed Generation Interconnection or Material Modification, BPUB will develop a drafted term of service for provision to the Interconnecting Entity.

CHAPTER 4 – GENERAL PROVISIONS

4.1 Utilities Availability Letter

a. BPUB will issue a letter of availability to an owner upon written request for availability of service.

This request for availability of service shall include the following:

1. Name of property owner
2. Property address
3. Legal description

Appendices

APPENDIX A

SCHEDULE OF TEMPORARY CHARGES OF ELECTRIC SERVICE

APPENDIX A

SCHEDULE OF TEMPORARY CHARGES OF ELECTRIC SERVICE

Service Charges:

New Installations:

Customer pays the total cost of installations and removal of required facilities

Points of attachment for overhead service conductors to their premise (i.e., house knobs, service mast guys, secondary brackets, etc.) - $20.00

Existing Installations:

Single Phase Service Drop - $35.00
Three Phase Service Drop - $60.00

New Residence - $35.00

Demand and Energy Charges:

Under 10 KW – Use General Service – Non- Demand Rate
Under 10 KW –Use General Service – Demand Rate

Deposit:

Prepaid deposit shall be required based on estimated energy consumption

Temporary Connection Construction Fee: $75.00

Temporary Connection to Permanent Construction Fee: $75.00

Relocation of Electrical Meter: $100.00

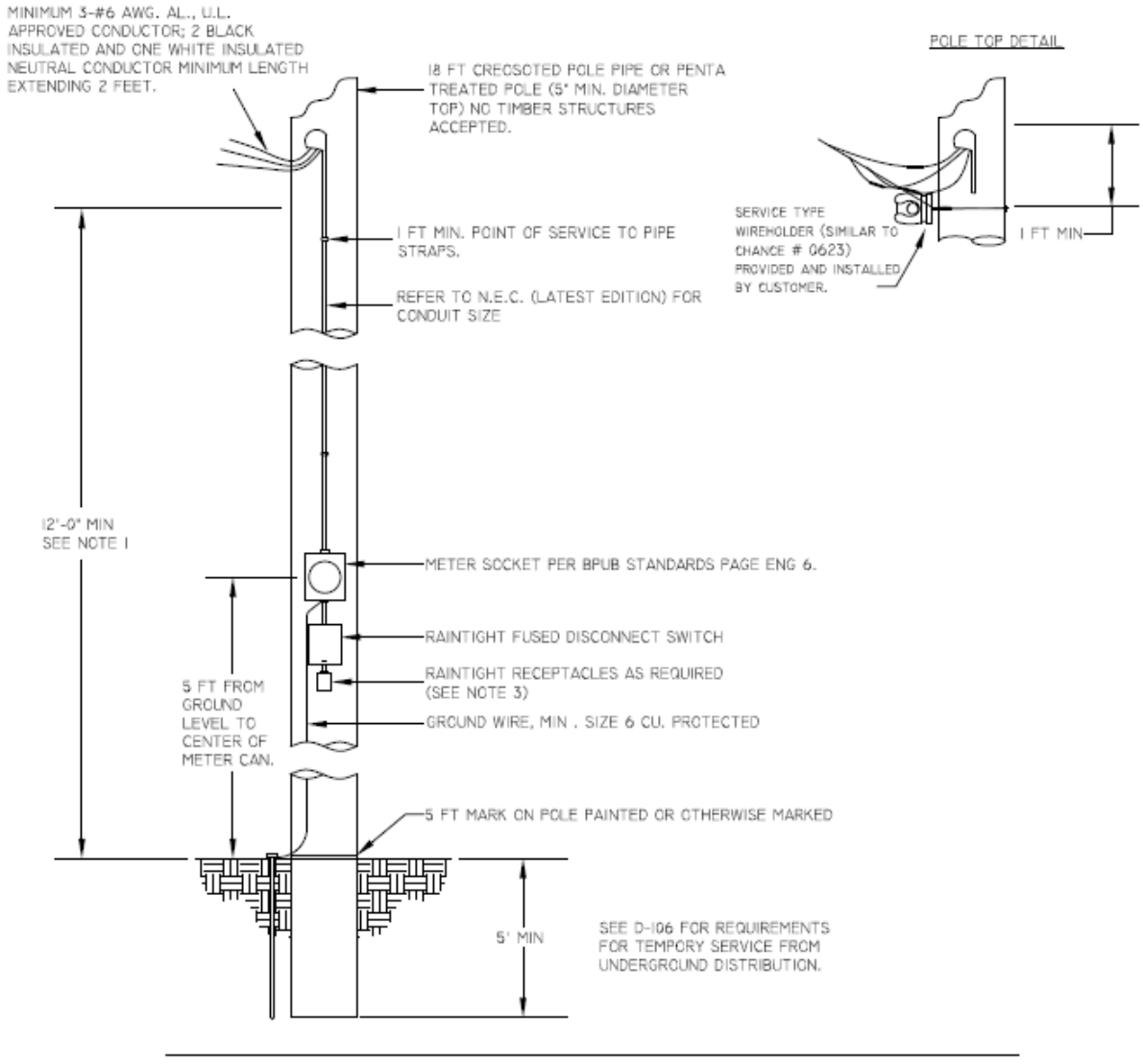
Construction Service Increase: $75.00

Third Wire Construction Fee: $75.00

APPENDIX B

REQUIREMENTS FOR TEMPORARY SERVICE FROM OVERHEAD SYSTEM

BROWNSVILLE PUBLIC UTILITIES BOARD
ELECTRICAL ENGINEERING DEPARTMENT



NOTE:

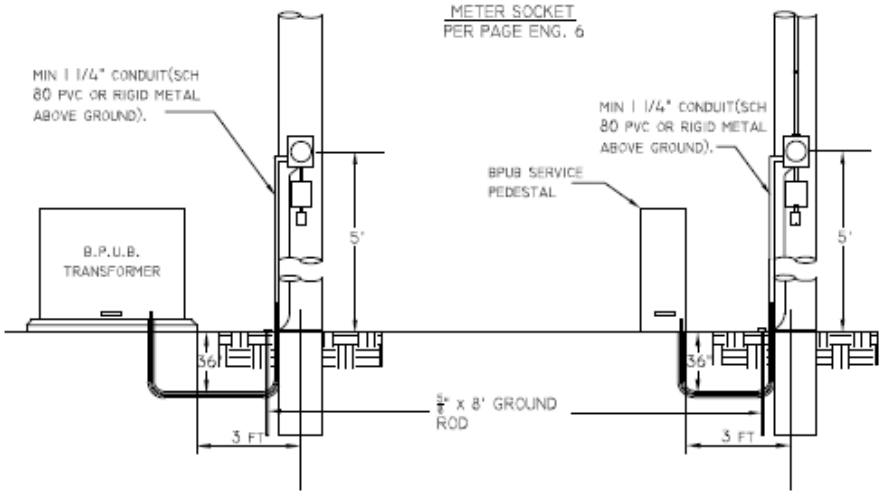
1. A MINIMUM CLEARANCE OF 18' IS REQUIRED OVER COMMERCIAL DRIVEWAYS OR PARKING LOTS. MINIMUM OF 22' REQUIRED OVER PUBLIC STREETS. ADDITIONAL POLE HEIGHT MAYBE REQUIRED TO ACCOMPLISH ADEQUATE CLEARANCES.
2. RECEPTACLES SHALL HAVE APPROVED GROUND-FAULT CIRCUIT PROTECTION FOR PERSONAL AS REQUIRED BY LOCAL CODES.
3. DISTANCE TO PUB SECOUNDARY POLE SHALL NOT BE MORE THAN 100' FOR 100AMP OR SMALLER SERVICES AND NOT MORE THAN 75' FOR 150AMP AND 200AMP SERVICES. FOR SERVICES LARGER THAN 200AMP CONSULT WITH BPUB ENGINEERING DEPARTMENT.

BROWNSVILLE PUBLIC UTILITIES BOARD	STANDARD DISTRIBUTION CONSTRUCTION REQUIREMENTS FOR TEMPORARY SERVICE POLE C-1	DEVELOPED BY:	STANDARDS COMMITTEE	STATE OF TEXAS EJ ALVAREZ 100959 LICENSED PROFESSIONAL ENGINEER
		APPROVED:	SEP 2020	
		DRAWING NUMBER	STD D-103	

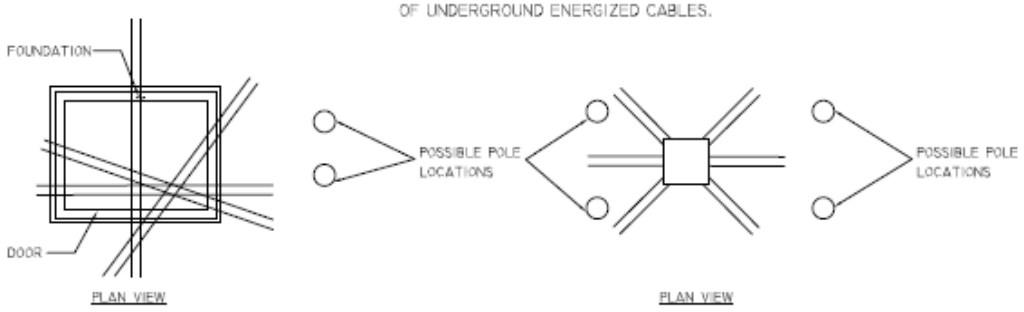
APPENDIX C

REQUIREMENTS FOR TEMPORARY SERVICE FROM UNDERGROUND SYSTEM

BROWNSVILLE PUBLIC UTILITIES BOARD
ELECTRICAL ENGINEERING DEPARTMENT



ELEVATION VIEW
DASHED LINES ARE APPROXIMATE LOCATIONS OF UNDERGROUND ENERGIZED CABLES.



PLAN VIEW PLAN VIEW

NOTE:

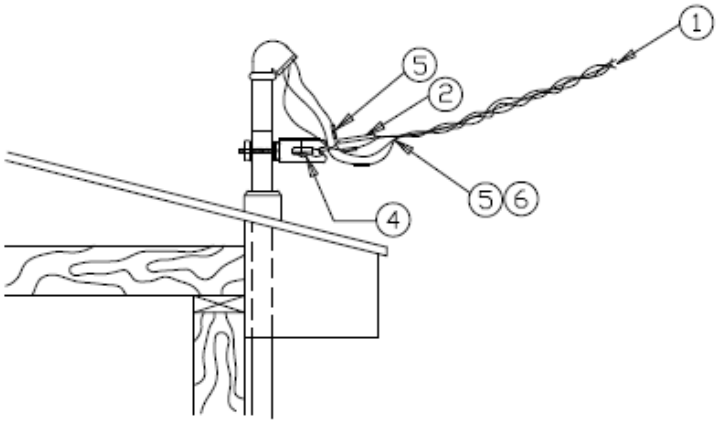
1. ALL COMPONENTS SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
2. CUSTOMER TO PROVIDE 36" OF SERVICE ENTRANCE CONDUCTOR BEYOND CONDUIT.
3. RECEPTACLES SHALL HAVE APPROVED GROUND FAULT CIRCUIT PROTECTION, AS REUIRED BY LOCAL CODES.

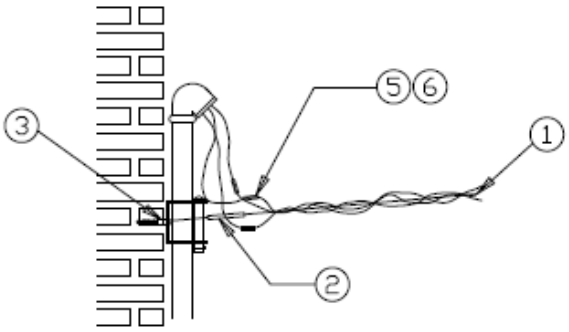
BROWNSVILLE PUBLIC UTILITIES BOARD	**STANDARD DISTRIBUTION CONSTRUCTION** **TEMPORARY SERVICE FROM UNDERGROUND RESIDENTIAL DISTRIBUTION** **D-1**	DEVELOPED BY:	STANDARDS COMMITTEE	STATE OF TEXAS EJ ALVAREZ 100959 LICENSED PROFESSIONAL ENGINEER
		APPROVED:	SEP 2020	
		DRAWING NUMBER	STD-D-106	

APPENDIX D

PERMANENT SERVICE ATTACHMENT AND CLEARANCES

BROWNSVILLE PUBLIC UTILITIES BOARD
ELECTRICAL ENGINEERING DEPARTMENT





NOTES:

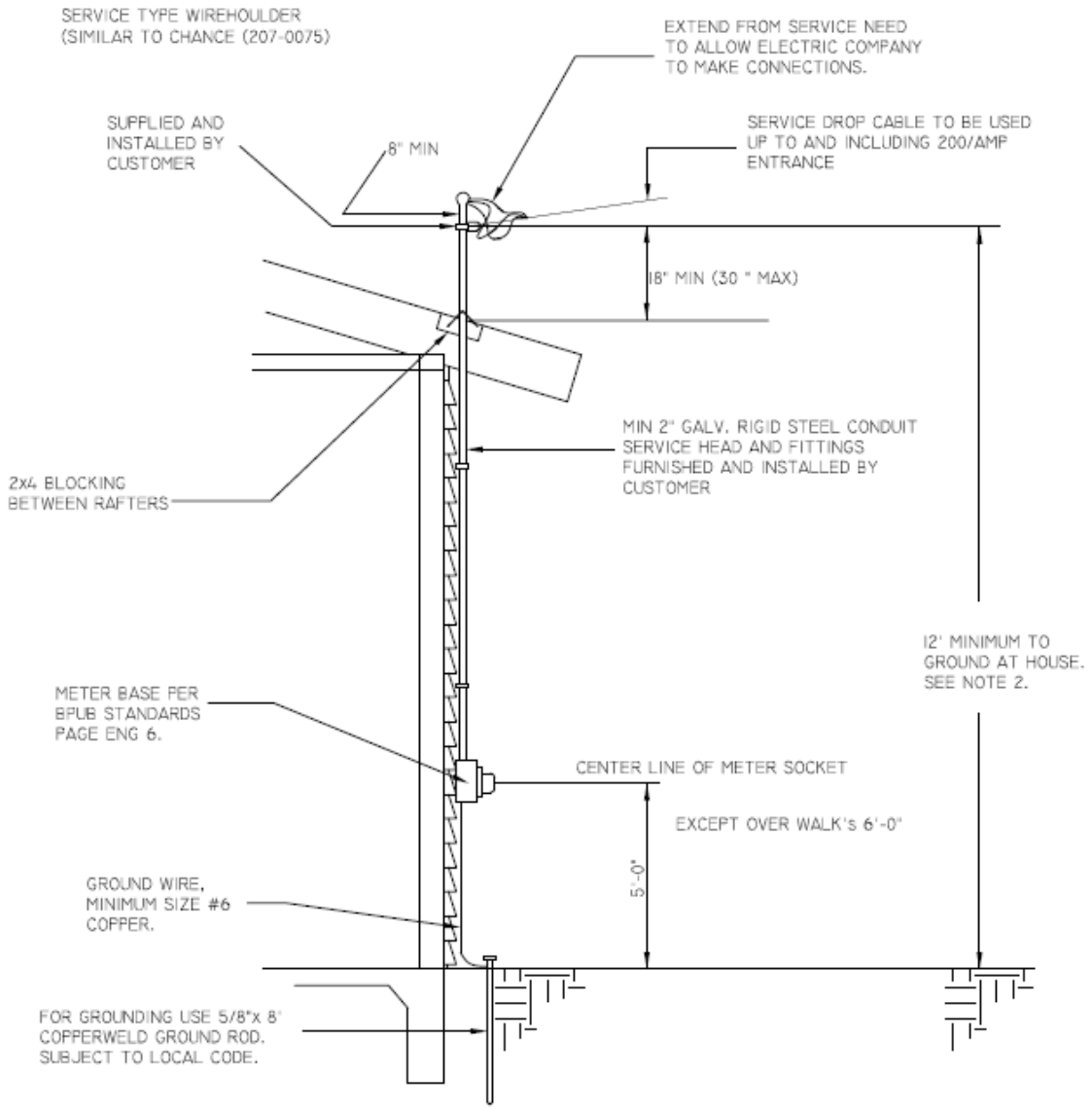
1. TRIPLEX OR QUADRUPLEX SERVICE DROP CABLE.
2. CABLE GRIP.
3. CLEVIS TYPE WIREHOLDER WITH INSULATOR (SIMILAR TO CHANCE # 0912) PROVIDED AND INSTALLED BY CUSTOMER.
4. SERVICE TYPE WIREHOLDER (SIMILAR TO CHANCE C207-0075)
5. SERVICE ENTRANCE SLEEVES
6. PLASTIC COVERS FOR HOT LEGS IF NON-INSULATED SERVICE ENTRANCE SLEEVES ARE USED
7. ON 4 WIRE QUADRUPLEX SERVICES, THE COVERED CONDUCTOR WITH MOST NUMBER OF RIBS WILL BE CONNECTED AS THE "WILD LEG".
8. POINT OF ATTACHMENT FOR SERVICE MUST BE OF SUFFICENT HEIGHT TO MAINTAIN, FOR THE SERVICE, 12' MINIMUM CLEARANCE TO GROUND, 18' MINIMUM TO COMMERCIAL DRIVEWAY AND 22' MINIMUM TO STREET.

BROWNSVILLE PUBLIC UTILITIES BOARD	STANDARD DISTRIBUTION CONSTRUCTION STANDARD PRACTICE FOR USE OF ALUMINUM TRIPLEX SERVICE DROP CABLE E-1	DEVELOPED BY:	STANDARDS COMMITTEE	STATE OF TEXAS EJ ALVAREZ 100959 LICENSED PROFESSIONAL ENGINEER
		APPROVED:	SEP 2020	
		DRAWING NUMBER	STD D-102	

APPENDIX E

PERMANENT SERVICE ENTRANCE

BROWNSVILLE PUBLIC UTILITIES BOARD
ELECTRICAL ENGINEERING DEPARTMENT



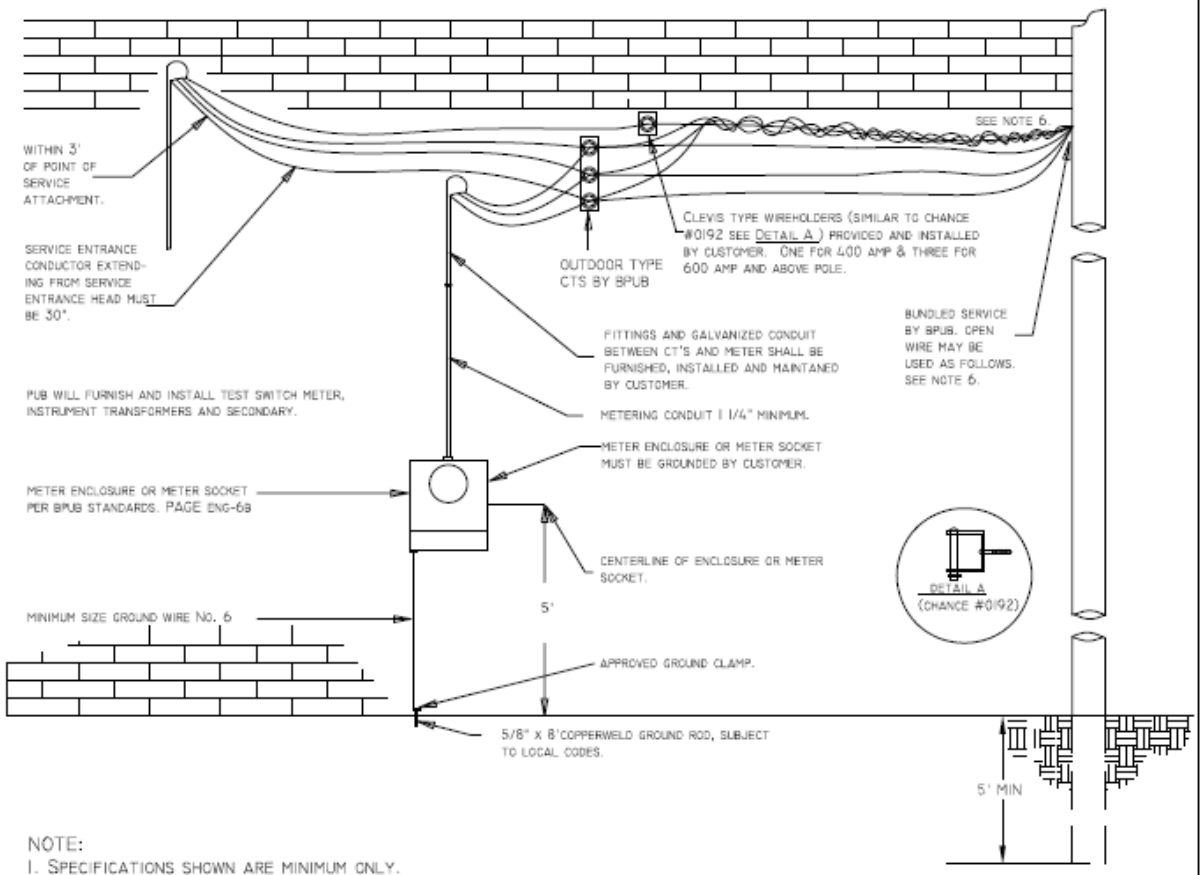
NOTE:
1. RECOMMENDED METHOD FOR LOW ROOF RANCH TYPE HOUSE WHERE CABLES ARE NOT EXISTING OR HOUSE IS NOT HIGH ENOUGH FOR ATTACHMENT OF SERVICE IN USUAL MANNER.
2. POINT OF ATTACHMENT FOR SERVICE MUST BE OF SUFFCIENT HEIGHT TO MAINTAIN, FOR THE SERVICE, A 12' MINIMUM CLEARANCE, 18' MINIMUM TO COMMERCIAL DRIVEWAY AND 22' MINIMUM TO STREET.

BROWNSVILLE PUBLIC UTILITIES BOARD	**STANDARD DISTRIBUTION CONSTRUCTION** **SERVICE ENTRANCE FOR LOW ROOF HOUSING** **F-1**	DEVELOPED BY:	STANDARDS COMMITTEE	STATE OF TEXAS EJ ALVAREZ 100959 LICENSED PROFESSIONAL ENGINEER
		APPROVED:	SEP 2020	
		DRAWING NUMBER	STD D-101	

APPENDIX F

TYPICAL CURRENT TRANSFORMER INSTALLATION

BROWNSVILLE PUBLIC UTILITIES BOARD
ELECTRICAL ENGINEERING DEPARTMENT



NOTE:
1. SPECIFICATIONS SHOWN ARE MINIMUM ONLY.
2. PUB SHALL BE CONSULTED ON EACH INSTALLATION REQUIRING CONDUCTOR LARGER THAN 300 MCM.
3. METER SOCKET AND METERING CONDUIT WILL BE FIRMLY SECURED TO BUILDING.
4. PROVISIONS FOR ANCHORING SERVICE ATTACHMENT TO BUILDING TO BE PROVIDED BY CUSTOMER.
5. SERVICE ENTRANCE CAP MUST BE ABOVE POINT OF SERVICE ATTACHEMENTS AND HIGH ENOUGH TO MAINTAIN SERVICE WIRES A GROUND CLEARANCE OF 12' MINIMUM, 18' MINIMUM TO COMMERCIAL DRIVEWAYS OR PARKING LOTS, AND 22' MINIMUM TO STREET.
6. PARALLEL PHASE CONDUCTORS SHALL BE MARKED BY THEIR RESPECTIVE PHASE.

BROWNSVILLE PUBLIC UTILITIES BOARD	**STANDARD DISTRIBUTION CONSTRUCTION**	DEVELOPED BY:	STANDARDS COMMITTEE	STATE OF TEXAS EJ ALVAREZ 100959 LICENSED PROFESSIONAL ENGINEER
	TYPICAL CURRENT TRANFORMER INSTALLATION	APPROVED:	SEP 2020	
	G-1	DRAWING NUMBER	STD D-105	

APPENDIX I

REVIEW FEES SCHEDULE

APPENDIX I
REVIEW FEES SCHEDULE

Electrical, Transmission & Distribution Department

Electrical Engineering Review and Design Fee ……..…….$500.00 + $10 per lot

APPENDIX J

MONTHLY CHARGES STREET LIGHTING

APPENDIX J

MONTHLY CHARGES STREET LIGHTING

Lighting units as of January 21, 2020

AREA LIGHTS	KWH USED	MONTHLY CHARGE
100 Watt HPS Equivalent (40W LED) Streetlight	14	$ 7.14
100 Watt HPS Equivalent (50W LED) Streetlight	18	$ 7.34
250 Watt HPS Equivalent (120W LED) Streetlight	43	$ 8.58
250 Watt HPS Equivalent (125W LED) Streetlight	45	$ 8.68
400 Watt HPS Equivalent (185W LED) Streetlight	67	$ 9.78
400 Watt HPS Equivalent (200W LED) Streetlight	73	$ 10.07
400 Watt HPS Equivalent (252W LED) Streetlight	91	$ 10.97

Billing - BPUB shall include the applicable rental and energy charges, as shown on Section 102-204 of the Brownsville City Ordinance, in the City of Brownsville bill.

Fuel Cost Adjustment - The cost of the KWH's used shall be subject to the provisions of Section 102-193 of the Ordinance Code of the City of Brownsville. (Ordinance No. 983)

APPENDIX K

CUSTOMER SERVICE FEES

APPENDIX K

CUSTOMER SERVICE FEES

Connection Fee:	$25.00 per service during regular working hours and as work schedule permits $75.00 during regular working hours and same day priority
Reconnection Fee:	$75.00 during regular working hours and as work schedule permits $150.00 during non-BPUB workdays including holidays and weekends

Applies to customers that have had services disconnected and request for reconnection and will be added to the BPUB bill.

Service Trip Fee:	$25.00 electric meter test during regular working hours and as work schedule permits $25.00 water meter test during regular working hours and as work schedule permits

Applies to customers that request for a physical inspection to meters and other BPUB equipment. In the event that there is BPUB equipment failure this charge does not apply.

Return Check Fee:	$25.00
Install RF Meter:	$125.00

Tampering Fees

The following fees may apply to customers found tampering with BPUB services, plus back billing if applicable. Tampering Fees are pays within 24 hours to avoid disconnection.

Unauthorized Access, Use and Diversion of Utility Service:
$150.00

Damaged Meter: $60.00

Reconnection Fee: $75.00

Connect URD/Overhead:
$150.00

APPENDIX L

EASEMENT FORM

APPENDIX L

EASEMENT FORM

THE STATE OF TEXAS §

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF CAMERON §

PUBLIC UTILITY EASEMENT

That _____, ("Grantor", whether one or more), of Cameron County, Texas, for and in consideration of the sum of Ten and No/100 Dollars ($10.00) and other valuable consideration to Grantor, in hand paid by the BROWNSVILLE PUBLIC UTILITIES BOARD OF THE CITY OF BROWNSVILLE, TEXAS, Cameron County, Texas, (BPUB) the receipt of which is hereby acknowledged, and for which no lien, express or implied, is retained, has GRANTED, SOLD and CONVEYED, and by these presents does GRANT, SELL and CONVEY unto the CITY OF BROWNSVILLE ("Grantee"), a Texas municipal corporation, for the use and benefit of its BROWNSVILLE PUBLIC UTILITIES BOARD OF THE CITY OF BROWNSVILLE, TEXAS, as such and their successors in office, and which operates pursuant to its authority under the Charter of the CITY OF BROWNSVILLE, TEXAS, an easement and right-of-way in, over and through the parcel of land, located within Cameron County, Texas, that is specifically described in Exhibit _____ attached hereto and made a part hereof (the "Easement"), for the purposes of constructing, reconstructing, re-aligning, inspecting, patrolling, maintaining, operating, altering, servicing, repairing, adding, removing and replacing electric, water and wastewater utility facilities and appurtenances together with (i) the right of ingress and egress over the Easement for the purposes set out above; (ii) the right to relocate such electric, water and wastewater utility facilities within the Easement; (iii) the right to remove from the Easement all trees and parts thereof, or other obstructions which may interfere with the exercise of the dominant rights granted hereby; and (iv) the right of exercising all other rights hereby granted, and Grantor expressly covenants and agrees for itself, its heirs, personal representatives, successors and assigns, that no structure or obstruction of any kind will be placed upon the Easement so long as the Easement remains in effect.

TO HAVE AND TO HOLD the Easement unto Grantee, its successors and assigns, for the uses and purposes set out above, and with the rights of ingress to and egress from and over the Easement for the purposes of constructing, reconstructing, re-aligning, inspecting, patrolling, maintaining, operating, altering, servicing, repairing, adding, removing, relocating and replacing electric, water and wastewater utility facilities until the use of the Easement by Grantee is permanently abandoned.

The Easement and the rights and privileges granted herein are dominant and exclusive, and Grantor covenants that neither it nor its heirs, personal representatives, successors or assigns will convey any other easements or conflicting rights within the Easement.

Grantor hereby binds itself, its heirs, personal representatives, successors and assigns, to WARRANT and FOREVER DEFEND all and singular the Easement and the rights hereby GRANTED, SOLD and CONVEYED unto Grantee, its successors and assigns, for the uses and purposes set out above, against every person whomsoever lawfully claiming or to claim the same or any part thereof.

This document and all of the terms, provisions, covenants and obligations contained in it shall be covenants running with the land affected hereby and shall inure to the benefit of and be binding upon Grantor and Grantee and their respective heirs, successors and assigns.

EXECUTED this _____ day of _____, 20___.

GRANTOR:

_____

Mailing address of Grantee:

City of Brownsville
for the use and benefit of its
Brownsville Public Utilities Board of
the City of Brownsville, Texas c/o
Right-of-Way Agent P. O. Box
3270, Brownsville, Texas 78520

For a natural person acting in his or her own right:

STATE OF TEXAS §
COUNTY OF CAMERON §

This instrument was acknowledged before me on this _____ day of _____, 20___, by _____[name or names of person acknowledging].

_____
Notary Public, State of Texas

My Commission Expires: _____

For a natural person as principal acting by attorney-in-fact:

STATE OF TEXAS §
COUNTY OF CAMERON §

This instrument was acknowledged before me on this ____ day of _____, 20____ by _____ as attorney-in-fact on behalf of _____[name of principal].

_____
Notary Public, State of Texas

My Commission Expires: _____

For a partnership acting by one or more partners:

STATE OF TEXAS §
COUNTY OF CAMERON §

This instrument was acknowledged before me on this _____ day of _____, 20____ by _____, partner(s) on behalf of ___[name of partnership], a partnership.

_____
Notary Public, State of Texas

My Commission Expires:_____

For a corporation:

STATE OF TEXAS §
COUNTY OF CAMERON §

This instrument was acknowledged before me on this ____ day of _____, 20___ by _____[name of officer]_____, _____[title of officer] of _____[name of corporation]_____, a _____[state] corporation, on behalf of said corporation.

_____
Notary Public, State of Texas

My Commission Expires: _____

For a public officer, trustee, executor, administrator, guardian or other representative:

STATE OF TEXAS §
COUNTY OF CAMERON §

This instrument was acknowledged before me on the ____ day of _____, 20____, by _____, as _____.
[name of representative] [title of representative]

_____
Notary Public, State of Texas
My Commission Expires: _____

APPENDIX M

STANDAND LIENHOLDER'S CONSENT FORM

APPENIX M

STANDARD LIENHOLDER'S CONSENT FORM

THE STATE OF TEXAS §

COUNTY OF CAMERON §

LIENHOLDER'S CONSENT

The undersigned hereby certifies that it is the holder of a security interest, mortgage, lien or other encumbrance on certain subdivision land (real property) properly known as and more specifically described on Exhibit A attached hereto and made a part hereof (the "Property"), and that the undersigned hereby joins in, ratifies and consents to the conveyance of personalty and public dedication of the water distribution and wastewater collection Facilities described on Exhibit B attached hereto and made a part hereof and located on or in the Property, and agrees that its security interest, mortgages, liens or other encumbrances held by it on the Property (real and/or personal), including without limitation, those recorded in Volume _____, at Page _____, of the Real Property Records of Cameron County, Texas shall be subordinated to this public dedication of ownership and operation.

SIGNED AND SEALED in the presence of:

_____

_____

BY: _____

ACKNOWLEDGMENT

STATE OF TEXAS §

COUNTY OF CAMERON §

The foregoing Lienholder's Consent was acknowledged before me this _____ day of _____, 20___, by _____.

_____

Notary Public, State of Texas

My Commission Expires: _____

APPENDIX N

RETAIL SERVICE STUDY AGREEMENT

RETAIL SERVICE STUDY AGREEMENT

This is a Retail Service Study Agreement ("Agreement") between the PUBLIC UTILITIES BOARD OF THE CITY OF BROWNSVILLE, TEXAS ("BPUB"), acting by its duly authorized General Manager & CEO, and Click or tap here to enter Company Name., a Click or tap here to enter Limited Liability Company. doing business in Click or tap here to enter Location. ("Customer"), acting herein by its duly authorized agent, Click or tap here to Add Name. This Agreement is made and entered into this Click or tap to enter a date.. Customer and BPUB each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, BPUB is a municipally-owned electric utility engaged in the generation, transmission, distribution, and sale of electric power and energy in the state of Texas;

WHEREAS, BPUB operates within its Certificate of Convenience and Necessity ("CCN") territory as granted by the Public Utility Commission of Texas and is designated as a Non-Opt-In Entity with the Electric Reliability Council of Texas (ERCOT) electric grid;

WHEREAS, Customer has requested initial retail service for a Click or tap here to enter load in MW. load at a facility located at GPS coordinates Click or tap here to enter GPS coordinates. (the "Facility"), in Click or tap here to enter county., Texas ("Project").

WHEREAS, the Customer has requested BPUB to develop definitive recommendations by performing studies (each a "Study") to assess the impact of serving the Project from BPUB's electrical distribution or transmission system and any affected systems and define the scope, schedule, and cost of the BPUB Facilities;

WHEREAS, the studies described in this Agreement for loads greater than 100MW at 138KV and 300 MW at 345KV satisfy the ERCOT study requirements for Large Loads; a separate study agreement shall be executed for a generation interconnection; and

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein, the Parties hereby agree as follows:

1.0 PERFORMANCE OF STUDY

The Study (whether composed of a single report or multiple reports) will assess and determine the physical and electrical impacts on the BPUB electrical distribution or transmission system posed by the interconnection of a proposed Project. BPUB shall, in its sole discretion, (subject to Attachment 1, *Scope of Study* hereof) set or ascertain the scope, details, and methods that BPUB deems necessary to perform the requested Study. The Customer agrees to provide BPUB with information that BPUB determines is reasonably necessary to complete the Study. BPUB shall use Good Utility Practices (as defined in Sec. 4.0) to perform the Study per the schedule outlined in Attachment 1 hereto. The schedule timeline in TABLE 1 in Attachment 1 initiates after the Agreement is executed, payment is received, and all required data for the Facility is provided.

2.0 COST OF THE STUDY

BPUB agrees to provide all necessary labor, materials, facilities, equipment, transportation and

supervision to perform the Study for Customer.

Customer agrees to compensate BPUB per Section 6.0, *Payment for Study Work*, of this Agreement. BPUB's estimate of the expected costs needed to perform the Study is listed in TABLE 1 in Attachment 1. The cost estimate for performing the Study assumes that BPUB can complete the Study with existing resources and does not include any third-party contract work to facilitate the Study. If BPUB, in its sole discretion, determines that third-party contractors are required to complete the Study, BPUB agrees to provide the estimated cost of such third-party work to Customer before committing to such work. Customer agrees that such third-party contractor cost differences shall be added or deducted from the cost estimate for the Study and that Customer will be responsible for such additional costs.

3.0 SCOPE OF STUDY

The Parties agree to the scope of the Study defined in Attachment 1. The Study identified in Attachment 1 will also include a work description and a non-binding, good-faith estimate of the work schedule and cost information for any new or upgraded transmission facilities required to interconnect the Project to the electrical distribution or transmission system.

4.0 STUDY STANDARDS

BPUB will use Good Utility Practices (as herein defined) to perform the Study. Each Party will perform its obligations as outlined in this Agreement in a manner that is consistent with regional practices, applicable laws and regulations, and the organizational nature of each Party. For this Agreement, the term Good Utility Practice shall have the meaning as established in the Title 16 Texas Administrative Code ("TAC") § 25.5 (57).

5.0 INFORMATION REQUESTS

The Study will be based on the technical information provided by Customer. BPUB reserves the right to request additional technical information from Customer, as may reasonably become necessary, consistent with Good Utility Practices during the Study. Customer agrees and understands that BPUB will be relying upon the accuracy and completeness of all information provided by Customer and that BPUB shall have no obligation to verify the information provided by Customer independently. If Customer modifies its designated point of delivery or its service request, or if the technical information provided by Customer is modified during the Study, the time to complete the Study may be extended at BPUB's sole discretion.

6.0 PAYMENT FOR STUDY WORK

Customer shall pay all costs necessary to complete the Study. Upon execution of this Agreement, BPUB shall invoice ("Initial Invoice") the Customer based on the estimated Study costs listed in TABLE 1 of Attachment 1. Customer shall pay said invoice within 30 days.

Upon delivery of the final Study, BPUB shall calculate the difference, if any, between the Initial Invoice amount and the actual costs required for completing the Study. If the actual costs exceed the Initial Invoice amount, then BPUB will invoice Customer and Customer shall pay BPUB, for such additional amounts. Customer's payment will be due 30 days from the date of any such subsequent invoice or invoices. If the amounts paid by Customer exceed the actual costs required to complete the Study, BPUB will refund Customer for such excess collections.

All invoices will be submitted for payment as follows:

Forward invoices/statement to:
Click or tap here to enter company address.

Customer shall make payments to BPUB as follows:

If by check or money order, forward payments to:

Brownsville Public Utilities Board
Attn: Accounting Dept.
PO Box 3270
Brownsville, TX 78523-3270

If by wire transfer:

Destination Bank
Bank Name: Wells Fargo, N.A.
ABA #: 121000248
Address: 420 Montgomery Street, San Francisco, CA 94104

Beneficiary
Account Name: Public Utilities Board of the City of Brownsville, Texas – Plant Fund
Account No:662516723

Please include details of payment purpose in addenda.

7.0 OWNERSHIP OF STUDY RESULTS

Any studies, reports, summaries, plans and other documents arising out of this Agreement shall be the property of BPUB. All studies, computer data, planning, operating, and other documents, assumptions, and any other material may be retained in BPUB's files, but copies shall be made available and supplied to Customer if such information has been retained.

8.0 NONDISCLOSURE OF INFORMATION

Customer shall consider all information provided by BPUB relative to the Study and all supporting work papers resulting from BPUB's performance of services under this Agreement to be proprietary unless such information is available through public sources. Customer shall not publish or disclose proprietary information for any purpose without the prior written consent of BPUB unless such publication or disclosure is legally required by subpoena, interrogatories, civil investigative demand, request for information or similar legal process or by ERCOT Procedure, or rule, regulation, policy, order or other directive; provided that Customer may disclose proprietary information to its affiliates, consultants, employees, representatives and agents as is necessary or advisable in connection with the Project, provided that prior to release of such information, each consultant, employee, representative, and agent of such affiliate(s), receiving such proprietary information affirms in writing to BPUB that they agree to be bound by the disclosure limitations and obligations respecting such proprietary information to the same extent as Customer, and that along with Customer, such persons and/or entities shall be responsible for any breach of disclosure obligations by such person or entity.

9.0 TERMINATION

BPUB shall have the right to terminate this Agreement at any time by providing written notice to Customer if Customer materially breaches this Agreement and fails to cure such material breach within thirty (30) days. A "material breach" includes, but is not limited to, Customer's failure to timely pay an invoice within 30 days of the invoice date. BPUB's time to perform under the Agreement shall be extended for each day that the breach remains uncured on a day for day basis. If BPUB terminates the Agreement under this paragraph, all expenses incurred by BPUB for the benefit of the Customer prior to such termination shall continue to be the sole responsibility of the Customer.

Customer may terminate the Agreement at any time by providing written notice to BPUB that it is terminating its service request. Following such termination by Customer, BPUB shall determine actual costs and expenses incurred by BPUB associated with the work performed under this Agreement before such termination and non-cancelable commitments made before such termination. BPUB will refund any amount previously paid by Customer over actual costs and expenses. Customer shall be responsible for any amounts incurred by BPUB over any amount previously paid by Customer.

10.0 NOTICES

Except as expressly set forth herein, whenever this Agreement requires or permits any notice, request, statement or demand from one party to another, the notice, request, statement or demand must be in writing to be effective and shall be deemed to be delivered and received (a) if personally delivered or if delivered by courier service (including, overnight courier service), when actually received by the party to whom notice is sent, (b) if delivered by telex or facsimile, on the day transmitted if such day is a business day and delivery thereof is confirmed to have occurred prior to 5:00 p.m. in the time zone of the receiving party, otherwise it shall be deemed delivered and received on the next business day, or (c) if delivered by mail (whether actually received or not), at the close of business on the fifth (5^{th}) day following the day when placed in the mail, postage prepaid, certified or registered, addressed to the appropriate party, at the address and/or facsimile numbers of such party set forth below (or at such other address as such party may designate by written notice to the other party in accordance with this Section):

If to BPUB:

Click or tap here to enter text.
Phone: Click or tap here to enter text.
Facsimile: Click or tap here to enter text.

If to Customer:

Click or tap here to enter text.
Phone: Click or tap here to enter text.
E-Mail: Click or tap here to enter text.

11.0 GOVERNING LAW AND VENUE

This Agreement shall be governed, construed, and interpreted in accordance with the laws of the State of Texas, without regard to any conflicts of laws principles that could require application of the laws of any other state. The laws of the State of Texas shall govern any dispute, controversy, or claim between the parties arising out of, relating to, or in any way connected with this Agreement, including without limitation, the existence, validity, performance, breach, or termination thereof. Each of the parties irrevocably and unconditionally (A) agrees that any suit, action or legal proceeding arising out of or relating to this Agreement will be brought in the courts of the State of Texas in Cameron County; (B) submits and consents to the exclusive jurisdiction of each court in any suit, action or proceeding; (C) waives any objection which it may have to the laying of venue of any suit, action or proceeding in any of the courts.

12.0 FORCE MAJEURE

Neither Party shall be considered to be in default in the performance of any of its obligations hereunder (other than its obligations to make payment of amounts owing pursuant hereto) if failure of performance shall be due to an uncontrollable force ("Uncontrollable Force"). The term Uncontrollable Force shall mean any cause beyond the control of the Party affected, including but not limited to failure of facilities, flood, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance, labor dispute, sabotage, and restraint by court order or public authority or failure to obtain necessary approval from a governmental authority, which by exercise of due diligence and foresight such Party could not reasonably have been expected to avoid and which by exercise of due diligence it shall be unable to overcome. Nothing contained herein shall be construed to require a Party to settle any strike or labor dispute in which it may be involved. Either Party rendered unable to fulfill any obligations because of an Uncontrollable Force shall exercise due diligence to remove such inability with all reasonable dispatch.

13.0 LIABILITY AND INDEMNITY

BPUB and Customer have considered the risks and potential liabilities that may arise during or as a result of the performance or provision of work, goods, and services by BPUB hereunder, and in consideration of the covenants, agreements, and promises included herein, agree to allocate the risks and liabilities in the following manner:

BPUB WILL CORRECT, OR CAUSE TO BE CORRECTED, AT NO ADDITIONAL EXPENSE TO CUSTOMER, ANY MATERIAL ERRORS IN THE WORK PERFORMED BY BPUB HEREUNDER WHICH TIMELY COME TO BPUB'S ATTENTION AND ARE CAUSED BY THE NEGLIGENCE OF BPUB. THE EXPRESS OBLIGATIONS AND LIABILITIES OF BPUB HEREIN ARE IN LIEU OF, AND CUSTOMER HEREBY WAIVES, DISCHARGES AND RELEASES, ALL OTHER WARRANTIES, GUARANTEES, CONDITIONS, OR LIABILITIES, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, WHETHER OR NOT OCCASIONED BY BPUB'S NEGLIGENCE, GROSS NEGLIGENCE, INTENTIONAL TORT OR STRICT LIABILITY. BPUB HEREBY EXPRESSLY DISCLAIMS ANY AND ALL REPRESENTATIONS AND WARRANTIES, WRITTEN OR ORAL, EXPRESS OR IMPLIED, WITH RESPECT TO ANY WORK, GOODS OR SERVICES PERFORMED OR PROVIDED BY BPUB HEREUNDER, INCLUDING, WITHOUT LIMITATION, ANY REPRESENTATION OR WARRANTY WITH RESPECT TO (A) THE MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF THE GOODS OR SERVICES PERFORMED OR PROVIDED BY BPUB HEREUNDER, OR (B) THE ACCURACY OR ADEQUACY OF ANY OF THE RESULTS OR INFORMATION CONTAINED IN ANY STUDY OR ANALYSIS PERFORMED OR PROVIDED BY BPUB HEREUNDER.

IN NO EVENT SHALL BPUB OR ITS AFFILIATES BE LIABLE UNDER THIS AGREEMENT OR OTHERWISE FOR ANY INDIRECT, CONSEQUENTIAL, SPECIAL, PUNITIVE OR INCIDENTAL DAMAGES OR COSTS OF CUSTOMER OR ITS AFFILIATES, WHETHER BASED IN CONTRACT, TORT (INCLUDING, WITHOUT LIMITATION, NEGLIGENCE, GROSS NEGLIGENCE, INTENTIONAL TORT OR STRICT LIABILITY), WARRANTY, COMMON LAW, STATUTE OR OTHERWISE, AND CUSTOMER HEREBY WAIVES, RELEASES AND DISCHARGES ANY AND ALL SUCH INDIRECT, CONSEQUENTIAL, SPECIAL, PUNITIVE AND INCIDENTAL DAMAGES AND COSTS. FOR PURPOSES HEREOF, CONSEQUENTIAL DAMAGES SHALL INCLUDE, WITHOUT LIMITATION, LOSS OF REVENUE, COST OF CAPITAL, LOSS OF BUSINESS REPUTATION AND OPPORTUNITY.

THE LIABILITY OF BPUB WITH RESPECT TO THIS AGREEMENT AND THE WORK, GOODS AND SERVICES PERFORMED OR PROVIDED HEREUNDER, INCLUDING LIABILITY IN

CONTRACT, TORT (INCLUDING NEGLIGENCE, INTENTIONAL TORT, AND STRICT LIABILITY), WARRANTY, AND INDEMNITY, AT COMMON LAW, BY STATUTE AND OTHERWISE, WILL BE LIMITED TO THE TOTAL COMPENSATION PAID TO BPUB FOR THE WORK PERFORMED BY IT HEREUNDER AND WILL NOT INCLUDE ANY CONTINGENT LIABILITY OR CONSEQUENTIAL DAMAGES TO CUSTOMER OR TO ANY OTHER PERSON OR ENTITY.

CUSTOMER HEREBY AGREES TO INDEMNIFY, PROTECT AND HOLD HARMLESS BPUB, ITS AFFILIATES, AND THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, REPRESENTATIVES AND AGENTS FROM AND AGAINST ANY AND ALL CLAIMS, ACTIONS, DEMANDS, LIABILITIES, LOSSES, DAMAGES, PENALTIES, COSTS AND EXPENSES, INCLUDING JUDGMENTS, COSTS AND ATTORNEYS' FEES, INCURRED BY OR ASSERTED AGAINST BPUB OR ITS AFFILIATES RELATING TO OR ARISING OUT OF THIS AGREEMENT, BPUB'S PERFORMANCE OF, OR FAILURE TO PERFORM, THIS AGREEMENT, OR THE WORK, GOODS AND SERVICES PERFORMED OR PROVIDED BY BPUB HEREUNDER, EXCEPT TO THE EXTENT SUCH CLAIM, LIABILITY, LOSS, DAMAGE, COST OR EXPENSE IS CAUSED BY THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF BPUB OR ITS OFFICERS, DIRECTORS, EMPLOYEES OR AGENTS.

THE RELEASES, DISCHARGES AND WAIVERS, THE LIMITATION OF LIABILITY, AND THE INDEMNIFICATION SET FORTH HEREIN SHALL APPLY REGARDLESS OF WHETHER THE CLAIM IS BROUGHT UNDER CONTRACT, TORT (INCLUDING NEGLIGENCE, GROSS NEGLIGENCE, INTENTIONAL TORT AND STRICT LIABILITY) OR OTHER THEORY OF RECOVERY, AND SHALL EXTEND TO BPUB, ITS AFFILIATES AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, AGENTS, ADVISORS, CONSULTANTS AND COUNSEL.

14. ASSIGNMENTS

This Agreement shall be assignable (whether voluntarily or by operation of law) by any party only with the other party's written consent, which consent shall not be unreasonably withheld.

15.0 ENTIRE AGREEMENT

This Agreement supersedes any and all proposals and/or understandings, oral and written, relating to the Study and constitutes their sole and only Agreement relating to the Study, and it shall not be construed as creating any obligation of either Party to construct facilities, interconnect to BPUB's system or for BPUB to provide electrical distribution or transmission service.

16.0 AMENDMENT

The Parties may, by mutual agreement, amend this Agreement by a written instrument duly executed by the Parties.

17.0 NO PARTNERSHIP

The Study shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

18.0 SUCCESSORS AND ASSIGNS

This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns.

19.0 REPRESENTATIONS AND WARRANTIES

Each Party represents and warrants to each of the other Party that:

(a) It is duly organized, validly existing, and in good standing under the laws of its state of organization and is duly qualified and in good standing under the laws of any other jurisdiction in which its business requires it to be so qualified. It has the requisite power and authority to enter into this Agreement and to fulfill its obligations hereunder;

(b) This Agreement has been duly authorized, validly executed and delivered by it, and the individuals signing this Agreement on behalf of it have the full legal power, authority, and right to execute and deliver this Agreement and to bind it hereunder;

(c) This Agreement constitutes a valid and legally binding agreement enforceable against it in accordance with its terms, except as the enforceability hereof may be limited by bankruptcy, insolvency or similar laws affecting creditors' rights generally; and

(d) The execution, delivery and performance by it of this Agreement require no approval, consent or authorization of any third parties (including governmental authorities), and do not contravene or constitute a default (with or without notice or the passage of time or both) under its articles of incorporation, bylaws or other governing documents, or any law, rule or regulation, or any other agreement or instrument binding upon it or to which it or its assets are subject.

20.0 SURVIVAL OF OBLIGATIONS AND LIABILITIES

The termination of this Agreement shall not relieve any Party of its obligations, duties, requirements, or rights under this Agreement incurred, or vested prior to termination of this Agreement or which, pursuant to the terms hereof, must be fulfilled after the date of termination of this Agreement.

21.0 EXECUTION BY COUNTERPARTS

This Agreement may be executed in any number of counterparts, and upon execution of this Agreement by all Parties, the executed counterparts together shall have the same force and effect as an original instrument and as if all Parties had signed the same instrument. Any signature page of this Agreement may be detached from any counterpart hereof without impairing the legal effect of any signature thereon, and may be attached to another counterpart of this Agreement identical in form hereto but having attached to it one or more signature pages.

22.0 THIRD PARTY BENEFICIARIES

This Agreement is being made and entered into solely for the benefit of the Parties, and no Party intends hereby to create any rights in favor of any other person, as a third party beneficiary of this Agreement or otherwise, except for (a) permitted successors and assigns and (b) rights and benefits of persons pursuant to the releases, discharges and waivers, the limitation of liability, and the indemnification set forth in Section 13.

23.0 INVALID PROVISIONS

If any provision in this Agreement is held to be illegal, invalid or unenforceable under present or future laws, such provision shall be fully severable; this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid or unenforceable provision, a provision as similar in terms to such illegal, invalid or unenforceable provision as may be possible, and be legal, valid and enforceable shall govern.

24.0 NO FURTHER OBLIGATION

This Agreement commits BPUB only to perform the Study, as contemplated by the terms hereof, and nothing in this Agreement shall commit BPUB to facilitate or guarantee to take any additional steps towards the procurement or installation of any facilities, or to accommodate the point of delivery of the Project to the BPUB system. Without limitation or modification of the foregoing, BPUB and Customer acknowledge and agree that many factors, including factors outside the control of either party, may affect the feasibility and schedule of the Project. The Customer agrees that it shall not assert, and hereby waives, any complaint that the Project was delayed by the undertaking of the Study or acts or omissions by BPUB in connection with the Project.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first written above.

Public Utilities Board of the City of Brownsville, Texas

By: _____

Name: _____

Title: _____

Date: _____

Click or tap here to enter text.

By: _____

Name: _____

Title: _____

Date: _____

Attachment 1

Scope of Study

BPUB RETAIL SERVICE STUDY FOR INDUSTRIAL/COMMERCIAL FACILITIES

DATA REQUIREMENTS

To properly assess the impacts to the electrical distribution or transmission system due to interconnection of the Project that is considered to have a significant projected electrical demand or to have a significant transient voltage impact, the electrical service provider must conduct the required level of engineering analysis. The required level of engineering analysis is a function of several factors, such as the electrical transmission or distribution system infrastructure available to serve the projected demand and the amount of existing electrical load utilizing the infrastructure. Table 2 can be used to identify what will be used for the type of Project. At any rate, such engineering analysis generally involves a steady state analysis and a transient voltage analysis. The steady state analysis evaluates the electrical infrastructure's ability to operate within established steady state thermal and voltage limits with the projected demand interconnected. The transient voltage analysis forecasts the amount of voltage sag and flicker the facility imposes. For each analysis, specific data items are needed.

Steady State Analysis

Data Requirements:

1. Facility location. Coordinates of some form are preferable.
2. If customer-owned overhead or underground circuit(s) between the facility and the BPUB point of interconnection have been planned, BPUB will need either the calculated impedances of these circuits or the following specifics:
    a. Circuit length(s).
    b. Conductor/Cable type(s) for both phase and neutral conductors.
    c. Spacing between conductors/cables.
3. Projected real and reactive (MW and MVAR) demand for the facility, including any power factor correction.

Transient Voltage Analysis (Voltage Sag/Flicker Study)

To predict the amount of voltage sag and flicker imposed by the facility, the maximum amount of motor start-up current or transient current from non-motor loads such as induction furnaces must be known along with the duty cycle of the loads. The following is a generalized description of the data required for the transient voltage analysis.

1. Motor data:
    a. Initial motor data requirements:
        i. Quantity of motors.
        ii. Sizes (hp).
        iii. The intended duty cycle for each motor.
        iv. Worst case scenario for coincident motor starting.
        v. Starting equipment to be utilized for each motor.
    b. If it is determined more specific motor data is required, BPUB will need the following data for some or all of the motors:
        i. Motor nameplate data, particularly
            (1) Terminal voltage
            (2) NEMA startup code
        ii. A one-line diagram clearly indicating transformation ratios of all transformers and impedances of all circuits between the motor and the BPUB point of interconnection.
2. Non-motor load data:
    a. Initial data requirements:
        i. Quantity and types of non-motor equipment.

ii. Electrical demand for each piece of equipment.
iii. The intended duty cycle for each piece of equipment.

b. The customer will need to provide more specific non-motor data as required by BPUB.

Short Circuit Study

The Short Circuit Study assesses the impact of increased levels of fault current in the study region resulting from interconnection of the Project. A short circuit starting case for one of years two through five in the near-term planning horizon will be selected to develop a short circuit change case to reflect the addition of the Project and associated transmission improvements that are consistent with the configuration studied and recommended in the steady-state study.

Fault currents at selected transmission buses will be calculated for three-phase and single line- to-ground faults in both the starting and change short circuit cases. BPUB will identify existing transmission service provider ("TSP") facilities that need to be upgraded as a result of the increased short circuit duties. These facilities are in addition to those identified in the Steady State Study.

The Short Circuit Study is estimated to be completed and a preliminary report issued within thirty (30) calendar days following the completion of the Steady State Study. Such time may vary depending upon the volume of other required transmission system activities. This time estimate is exclusive of any delays in obtaining required data needed for these studies.

Dynamic Stability Study (Dynamic Study)

A Dynamic Stability Study will be performed for the purpose of identifying undesirable behavior of the Project, or undesirable behavior of other interconnected machines induced by interconnection of the Project, resulting from transmission disturbances. Such analysis may determine additional system improvements beyond those identified in the steady-state analysis in order to accommodate the Project. The Dynamic Stability Study will utilize: (1) one or more network models from the latest approved ERCOT Dynamic Working Group ("DWG") flat start set modified to include the steady state representation of the Project and associated transmission improvements that are consistent with the configuration studied and recommended in the steady-state study; and (2) corresponding ERCOT Dynamics Work Group dynamics model data file modified to include the dynamic models and parameters of the Project provided in the Customer's Resource Asset Registration Form ("RARF"). The Project will be modeled at or near full net capability unless there is sufficient reason to believe risks are greater at reduced levels. When appropriate, Emergency Response Service ("ERS") high set relay data will be added to the dynamics data set, as well as Under Frequency Load Shed ("UFLS") and/or Under Voltage Load Shed ("UVLS") protection relay data.

Selected disturbances which conform to North American Electric Reliability Corporation ("NERC") Reliability Standard TPL-001-4 and the ERCOT Planning Criteria will be simulated to evaluate the ability of the Project to maintain stability or remain connected to the system. If simulation results show the Project is experiencing instability or tripping, the contingency will be noted in the report. Where stability issues are observed, additional facility requirements will be identified and tested. Special protection systems may be identified and proposed as an alternative to transmission line or other equipment additions, if reasonable. Depending on the nature of limitations in the region under study, the two areas of concern following a disturbance are:

- Rotor Angle Stability: This is the ability of the interconnected synchronous machines within the ERCOT interconnection to remain in synchronism. The focus of this type of analysis is typically on the impact the Project has on critical clearing times for faults on transmission facilities nearby to the Project and any other interconnected generators.
- Voltage Stability: This is the ability of the transmission system to maintain steady acceptable voltages at all buses in the system. This type of analysis is typically more of a focal point for those situations where non-synchronous machines and inverter-based facilities are interconnected within

areas of the system characterized by marginal voltage regulation or otherwise lacking robust voltage regulation.

The Dynamic Stability Study is estimated to be completed and a preliminary report issued within ninety (90) calendar days following completion of the Steady-State Study. Such time may vary depending upon the volume of other required transmission system activities. This time estimate is exclusive of any delays in obtaining required data needed for the studies.

Facility Study

The Facilities Study will provide a description of the proposed interconnection facilities, including cost estimates, one-line diagram, and estimated time to complete the construction of such facilities. The Facilities Study will be based upon: 1) applicable results of the Steady-State Study, Short Circuit Study, and Dynamic Stability Study previously discussed in this scope; and 2) additional assumptions as mutually agreed upon by Customer and BPUB. The scope of the Facilities Study will be limited to BPUB-owned facilities recommended and defined in the Steady-State Study, Short Circuit Study, and Dynamic Stability Study. All such facilities will be in accordance with Title 16 Texas Administrative Code § 25.195. If improvements to non-BPUB owned TSP systems are identified, Customer will be required to establish a separate facilities study agreement with these TSP's.

The Facilities Study is estimated to be completed and a preliminary report issued within ninety (90) calendar days after completion of the Dynamic Stability Study. Such time may vary depending upon the volume of other required transmission system activities. This time estimate is exclusive of any delays in obtaining required data needed for the studies.

DELIVERABLES

The following deliverables will be provided by BPUB and are contingent on the type of Project, as per Table 2.

- A Steady State Study report will be issued discussing the contingencies reviewed and identifying violations of the BPUB transmission planning criteria and ERCOT transmission planning criteria. A description of alternatives reviewed for correcting the violations and resulting system improvement recommendations will be included;
- A Short Circuit Study report identifying system fault duty increase caused by the addition of the Project and a list of existing facilities that need to be upgraded as a result of the increased short circuit fault duties;
- A Dynamic Stability Study report which identifies disturbances resulting in dynamic stability problems, if any, along with recommended solutions. The report will describe the study assumptions, contingencies simulated, and the results of each simulation. Plots of machine and system electrical parameters will be provided to verify the stability of the Project for each simulation; and
- A Facilities Study report documenting any proposed interconnection facilities and system upgrades of BPUB-owned facilities which will include cost estimates, one-line diagrams, and estimated time to complete the construction of such facilities.

Documents and other information produced and used for this study are to be supplied in an electronic media format. Hard copies are supplied upon request.

SCHEDULE AND ESTIMATE OF COST

The schedule for the completion of the Study depends on the Project type, as per Table 2 below. After signing the Agreement, BPUB shall adhere to schedules/timelines outlined below. This timeline is exclusive of delays in obtaining data that is required to facilitate this service request.

TABLE 1

Item	Task	Preliminary Report (Days)	*Estimated Cost (k$)*
1	Steady State Study	45*	*$25,000*
2	Voltage Sag/Flicker Study	45*	*$5,000*
3	Short-Circuit Study	30	*$10,000*
4	Dynamic Study	45	*$30,000*
5	Facilities Study	30	*$10,000*

** The Study will result in a study time of 90 days plus the time to perform the Facilities Study. Portions of the Study will be run concurrently, if resources permit.*

BPUB and Customer will confer informally from time to time as the Study progresses so that each Party is informed about interim study results and can confer about possible system designs and solutions to potential transmission facility point of delivery problems either already known or identified in the study process.

PROJECT CLASSIFICATION

The following table breaks down which studies will be completed for the Project, Preliminary Report (Days), the deliverables, and cost.

TABLE 2

Project type	Studies	Preliminary Report (Days)	Deliverables	*Cost*
☒Load is 300 MW or greater and connected at 345kV	All studies from Table 1	195	1 report per study	$80,000
☐Load is less than 300MW and connected at 345kV	Table 1 items: 1, 2, and 5	120	1 report that summarizes the three studies.	$40,000
☐Load is 100MW or greater and connected at 138kV	All studies from Table 1	195	1 report per study	$80,000
☐Load is less than 100MW and connected at 138kV	Table 1 items: 1, 2, and 5	120	1 report that summarizes the three studies.	$40,000

APPENDIX O

FULL INTERCONNECTION STUDY AGREEMENT

FULL INTERCONNECTION STUDY AGREEMENT

This **FULL INTERCONNECTION STUDY AGREEMENT** ("Agreement") between the PUBLIC UTILITIES BOARD OF THE CITY OF BROWNSVILLE, TEXAS ("BPUB"), acting by its duly authorized General Manager & CEO, and Click or tap here to enter Company Name., a Click or tap here to enter Limited Liability Company. doing business in Click or tap here to enter Location. ("Customer"), acting herein by its duly authorized agent, Click or tap here to Add Name. This Agreement is made and entered into this Click or tap to enter a date.. Customer and BPUB each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, BPUB is an electric utility engaged in the transmission and distribution of electric power and energy in the state of Texas;

WHEREAS, Customer has requested interconnection of the Click here to enter name of facility. , a proposed Click here to enter MW size and type of facility. generation or storage facility located at GPS coordinates Click or tap here to enter GPS coordinates. (the "Facility"), in Click or tap here to enter county., Texas ("Project"). Under the ERCOT generation interconnection request Click or tap here to enter ERCOT INR. ("Interconnection Request"), received by BPUB on Click or tap to enter a date.

WHEREAS, the results of the ERCOT Generation Interconnect Screening Study ("Screening Study") are not yet available;

WHEREAS, by design, the conclusions of the Screening Study serve only as an indication that improvements are needed to accommodate the interconnection request but are not a definitive recommendation on the required improvements and are subject to being reduced, expanded or otherwise modified through more definitive analysis;

WHEREAS, the Parties held the full interconnection study kickoff meeting on Click or tap to enter a date. where the Parties discussed the scope and schedule of the studies as well as the schedule for certain required construction activities.

WHEREAS, Customer has requested BPUB to develop definitive recommendations by performing the full interconnection studies (each a "Study") in accordance with Section 5 of the ERCOT Planning Guide ("ERCOT Procedure"), North American Electric Reliability Corporation ("NERC") Reliability Standard FAC-002, the ERCOT Planning Criteria, the BPUB Transmission Planning Criteria, and BPUB's Facility Connection Requirements inclusive of the study components specified in Attachment 1, Scope of Full Interconnection Study hereof (collectively referred to as the "FIS") to assess the impact of interconnecting the Project to BPUB's Transmission System, and any affected systems and define the scope, schedule and cost of the BPUB interconnection facilities; and

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein, the Parties hereby agree as follows:

1.0 PERFORMANCE OF FIS

The FIS (whether composed of a single report or multiple reports) will assess and determine the physical and electrical impacts on the BPUB electrical transmission system posed by interconnection of a proposed Project. BPUB shall, in its sole discretion (subject to Attachment 1, *Scope of Full Interconnection Study* hereof) set or ascertain the scope, details and methods that BPUB deems necessary to perform the requested FIS. The Customer agrees to provide to BPUB such information that BPUB determines is reasonably necessary to complete the FIS. BPUB shall use Good Utility Practices (as defined in Sec. 4.0) to perform the FIS in accordance with the schedule set forth in Attachment 1 hereto. The schedule timeline in TABLE 1 in Attachment 1 initiates after the Agreement is executed, payment is received, and all required data for the Project is provided.

2.0 COST OF THE FIS

BPUB agrees to provide all necessary labor, materials, facilities, equipment, transportation and supervision necessary to perform the FIS for Customer.

Customer agrees to compensate BPUB per Section 6.0, *Payment for FIS Work*, of this Agreement. BPUB's estimate of the expected costs needed to perform the FIS is listed in TABLE 1 in Attachment 1. The cost estimate for performing the FIS assumes that BPUB can complete the FIS with existing resources and does not include any third-party contract work to facilitate the FIS. If BPUB, in its sole discretion, determines that third-party contractors are required to complete the FIS, BPUB agrees to provide the estimated cost of such third-party work to Customer before committing to such. Customer agrees that such third-party contractor costs shall be added or deducted from the cost estimate for the FIS and that Customer will be responsible for such additional costs.

3.0 SCOPE OF FIS

The Parties agree to the scope of the FIS defined in Attachment 1. The FIS identified in Attachment 1 will also include a work description and a non-binding, good-faith estimate of the work schedule and cost information for any new or upgraded transmission facilities required to interconnect the Project to the electrical transmission system.

4.0 FIS STANDARDS

In performing the FIS, BPUB will use Good Utility Practices (as herein defined). Each Party will perform its obligations as set forth in this Agreement in a manner that is consistent with regional practices, applicable laws and regulations, and the organizational nature of each Party. For purposes of this Agreement, the term Good Utility Practice shall have the meaning as established in the Title 16 Texas Administrative Code ("TAC") § 25.5 (57).

5.0 INFORMATION REQUESTS

The FIS will be based upon the technical information provided by Customer. BPUB reserves the right to request additional technical information from Customer, as may reasonably become necessary, consistent with Good Utility Practices during the course of the FIS. Customer agrees and understands that BPUB will be relying upon the accuracy and completeness of all information provided by Customer and that BPUB shall have no obligation to independently verify the information provided by Customer. If Customer modifies its designated point of delivery or its service request, or if the technical information provided by Customer is modified during the course of the FIS, the time to complete the FIS may be extended at BPUB's sole discretion.

6.0 PAYMENT FOR FIS WORK

Customer shall pay all costs necessary to complete the FIS. Upon execution of this Agreement, BPUB shall invoice ("Initial Invoice") the Customer based on the estimated FIS costs listed in TABLE 1 of Attachment 1. Customer shall pay said invoice within 30 days.

If, during the course of the FIS, actual costs are expected to exceed 125% of Initial Invoice amount, BPUB shall notify the customer as soon as practical of the revised study cost estimate.

Upon delivery of the final FIS, BPUB shall calculate the difference, if any, between the Initial Invoice amount and the actual costs required for completing the FIS. If the actual costs exceed the Initial Invoice amount, then BPUB will invoice Customer and Customer shall pay BPUB, for such additional amounts. Customer's payment will be due 30 days from the date of any such subsequent invoice or invoices. In the event that the amounts actually paid by Customer exceed the actual costs required to complete the FIS, BPUB will refund Customer for such excess collections.

All invoices will be submitted for payment as follows:

Forward invoices/statement to:
Click or tap here to enter company address.

Customer shall make payments to BPUB as follows:

If by check or money order, forward payments to:

Brownsville Public Utilities Board
Attn: Accounting Dept.
PO Box 3270
Brownsville, TX 78523-3270

If by wire transfer:

Destination Bank
Bank Name: Wells Fargo, N.A.
ABA #: 121000248
Address: 420 Montgomery Street, San Francisco, CA 94104

Beneficiary
Account Name: Public Utilities Board of the City of Brownsville, Texas – Plant Fund
Account No:662516723

Please include details of payment purpose in addenda.

7.0 OWNERSHIP OF FIS RESULTS

Any studies, reports, summaries, plans and other documents arising out of this Agreement shall be the property of BPUB. All studies, computer data, planning, operating and other documents, assumptions, and any other material may be retained in BPUB's files, but copies, if such information has been retained, shall be made available and supplied to Customer.

8.0 NONDISCLOSURE OF INFORMATION

Customer shall consider all information provided by BPUB relative to the FIS and all supporting work papers resulting from BPUB's performance of services under this Agreement to be proprietary unless such information is available through public sources. Customer shall not publish or disclose proprietary information for any purpose without the prior written consent of BPUB unless such publication or disclosure is legally required by subpoena, interrogatories, civil investigative demand, request for information or similar legal process or by ERCOT Procedure, or rule, regulation, policy, order or other directive; provided that Customer may disclose proprietary information to its affiliates, consultants, employees, representatives and agents as is necessary or advisable in connection with the Project, provided that prior to release of such information, each consultant, employee, representative, and agent of such affiliate(s), receiving such proprietary information affirms in writing to BPUB that they agree to be bound by the disclosure limitations and obligations respecting such proprietary information to the same extent as Customer, and that along with Customer, such persons and/or entities shall be responsible for any breach of disclosure obligations by such person or entity.

9.0 TERMINATION

BPUB shall have the right to terminate this Agreement at any time by providing written notice to Customer if Customer materially breaches this Agreement and fails to cure such material breach within thirty (30) days. A "material breach" includes, but is not limited to, Customer's failure to timely pay an invoice within 30 days of the invoice date. BPUB's time to perform under the Agreement shall be extended for each day that the breach remains uncured on a day for day basis. If the Agreement is terminated by BPUB under this paragraph, all expenses incurred by BPUB for the benefit of the Customer prior to such termination shall continue to be the sole responsibility of the Customer.

Customer may terminate the Agreement at any time by providing written notice to BPUB that it is terminating its service request. Following such termination by Customer, BPUB shall determine actual costs and expenses incurred by BPUB associated with the work performed under this Agreement prior to such termination and non-cancelable commitments made prior to such termination. BPUB will refund any amount previously paid by Customer in excess of actual costs and expenses. Customer shall be responsible for any amounts incurred by BPUB in excess of any amount previously paid by Customer.

10.0 NOTICES

Except as expressly set forth herein, whenever this Agreement requires or permits any notice, request, statement or demand from one party to another, the notice, request, statement or demand must be in writing to be effective and shall be deemed to be delivered and received (a) if personally delivered or if delivered by courier service (including, overnight courier service), when actually received by the party to whom notice is sent, (b) if delivered by telex or facsimile, on the day transmitted if such day is a business day and delivery thereof is confirmed to have occurred prior to 5:00 p.m. in the time zone of the receiving party, otherwise it shall be deemed delivered and received on the next business day, or (c) if delivered by mail (whether actually received or not), at the close of business on the fifth (5^{th}) day following the day when placed in the mail, postage prepaid, certified or registered, addressed to the appropriate party, at the address and/or facsimile numbers of such party set forth below (or at such other address as such party may designate by written notice to the other party in accordance with this Section):

If to BPUB:

Click or tap here to enter text.

Phone: Click or tap here to enter text.
Facsimile: Click or tap here to enter text.

If to Customer:

Click or tap here to enter text.
Phone: Click or tap here to enter text.
E-Mail: Click or tap here to enter text.

11.0 GOVERNING LAW AND VENUE

This Agreement shall be governed, construed and interpreted in accordance with the laws of the State of Texas, without regard to any conflicts of laws principles that could require application of the laws of any other state. The laws of the State of Texas shall govern any dispute, controversy, or claim between the parties arising out of, relating to, or in any way connected with this Agreement, including without limitation, the existence, validity, performance, breach, or termination thereof. Each of the parties irrevocably and unconditionally (A) agrees that any suit, action or legal proceeding arising out of or relating to this Agreement will be brought in the courts of the State of Texas in Cameron County; (B) submits and consents to the exclusive jurisdiction of each court in any suit, action or proceeding; (C) waives any objection which it may have to the laying of venue of any suit, action or proceeding in any of the courts.

12.0 FORCE MAJEURE

Neither Party shall be considered to be in default in the performance of any of its obligations hereunder (other than its obligations to make payment of amounts owing pursuant hereto) if failure of performance shall be due to an uncontrollable force ("Uncontrollable Force"). The term Uncontrollable Force shall mean any cause beyond the control of the Party affected, including but not limited to failure of facilities, flood, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance, labor dispute, sabotage, and restraint by court order or public authority or failure to obtain necessary approval from a governmental authority, which by exercise of due diligence and foresight such Party could not reasonably have been expected to avoid and which by exercise of due diligence it shall be unable to overcome. Nothing contained herein shall be construed so as to require a Party to settle any strike or labor dispute in which it may be involved. Either Party rendered unable to fulfill any obligations by reason of an Uncontrollable Force shall exercise due diligence to remove such inability with all reasonable dispatch.

13.0 LIABILITY AND INDEMNITY

BPUB and Customer have considered the risks and potential liabilities that may arise during or as a result of the performance or provision of work, goods and services by BPUB hereunder, and in consideration of the covenants, agreements and promises included herein, agree to allocate the risks and liabilities in the following manner:

BPUB WILL CORRECT, OR CAUSE TO BE CORRECTED, AT NO ADDITIONAL EXPENSE TO CUSTOMER, ANY MATERIAL ERRORS IN THE WORK PERFORMED BY BPUB HEREUNDER WHICH TIMELY COME TO BPUB'S ATTENTION AND ARE CAUSED BY THE NEGLIGENCE OF BPUB. THE EXPRESS OBLIGATIONS AND LIABILITIES OF BPUB HEREIN ARE IN LIEU OF, AND CUSTOMER HEREBY WAIVES, DISCHARGES AND RELEASES, ALL OTHER WARRANTIES, GUARANTEES, CONDITIONS, OR LIABILITIES, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, WHETHER OR NOT OCCASIONED BY BPUB'S NEGLIGENCE, GROSS NEGLIGENCE, INTENTIONAL TORT OR STRICT LIABILITY. BPUB HEREBY EXPRESSLY DISCLAIMS ANY AND ALL REPRESENTATIONS AND WARRANTIES, WRITTEN OR ORAL, EXPRESS OR IMPLIED, WITH RESPECT TO ANY WORK, GOODS OR

SERVICES PERFORMED OR PROVIDED BY BPUB HEREUNDER, INCLUDING, WITHOUT LIMITATION, ANY REPRESENTATION OR WARRANTY WITH RESPECT TO (A) THE MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF THE GOODS OR SERVICES PERFORMED OR PROVIDED BY BPUB HEREUNDER, OR (B) THE ACCURACY OR ADEQUACY OF ANY OF THE RESULTS OR INFORMATION CONTAINED IN ANY STUDY OR ANALYSIS PERFORMED OR PROVIDED BY BPUB HEREUNDER.

IN NO EVENT SHALL BPUB OR ITS AFFILIATES BE LIABLE UNDER THIS AGREEMENT OR OTHERWISE FOR ANY INDIRECT, CONSEQUENTIAL, SPECIAL, PUNITIVE OR INCIDENTAL DAMAGES OR COSTS OF CUSTOMER OR ITS AFFILIATES, WHETHER BASED IN CONTRACT, TORT (INCLUDING, WITHOUT LIMITATION, NEGLIGENCE, GROSS NEGLIGENCE, INTENTIONAL TORT OR STRICT LIABILITY), WARRANTY, COMMON LAW, STATUTE OR OTHERWISE, AND CUSTOMER HEREBY WAIVES, RELEASES AND DISCHARGES ANY AND ALL SUCH INDIRECT, CONSEQUENTIAL, SPECIAL, PUNITIVE AND INCIDENTAL DAMAGES AND COSTS. FOR PURPOSES HEREOF, CONSEQUENTIAL DAMAGES SHALL INCLUDE, WITHOUT LIMITATION, LOSS OF REVENUE, COST OF CAPITAL, LOSS OF BUSINESS REPUTATION AND OPPORTUNITY.

THE LIABILITY OF BPUB WITH RESPECT TO THIS AGREEMENT AND THE WORK, GOODS AND SERVICES PERFORMED OR PROVIDED HEREUNDER, INCLUDING LIABILITY IN CONTRACT, TORT (INCLUDING NEGLIGENCE, INTENTIONAL TORT, AND STRICT LIABILITY), WARRANTY, AND INDEMNITY, AT COMMON LAW, BY STATUTE AND OTHERWISE, WILL BE LIMITED TO THE TOTAL COMPENSATION PAID TO BPUB FOR THE WORK PERFORMED BY IT HEREUNDER AND WILL NOT INCLUDE ANY CONTINGENT LIABILITY OR CONSEQUENTIAL DAMAGES TO CUSTOMER OR TO ANY OTHER PERSON OR ENTITY.

CUSTOMER HEREBY AGREES TO INDEMNIFY, PROTECT AND HOLD HARMLESS BPUB, ITS AFFILIATES, AND THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, REPRESENTATIVES AND AGENTS FROM AND AGAINST ANY AND ALL CLAIMS, ACTIONS, DEMANDS, LIABILITIES, LOSSES, DAMAGES, PENALTIES, COSTS AND EXPENSES, INCLUDING JUDGMENTS, COSTS AND ATTORNEYS' FEES, INCURRED BY OR ASSERTED AGAINST BPUB OR ITS AFFILIATES RELATING TO OR ARISING OUT OF THIS AGREEMENT, BPUB'S PERFORMANCE OF, OR FAILURE TO PERFORM, THIS AGREEMENT, OR THE WORK, GOODS AND SERVICES PERFORMED OR PROVIDED BY BPUB HEREUNDER, EXCEPT TO THE EXTENT SUCH CLAIM, LIABILITY, LOSS, DAMAGE, COST OR EXPENSE IS CAUSED BY THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF BPUB OR ITS OFFICERS, DIRECTORS, EMPLOYEES OR AGENTS.

THE RELEASES, DISCHARGES AND WAIVERS, THE LIMITATION OF LIABILITY, AND THE INDEMNIFICATION SET FORTH HEREIN SHALL APPLY REGARDLESS OF WHETHER THE CLAIM IS BROUGHT UNDER CONTRACT, TORT (INCLUDING NEGLIGENCE, GROSS NEGLIGENCE, INTENTIONAL TORT AND STRICT LIABILITY) OR OTHER THEORY OF RECOVERY, AND SHALL EXTEND TO BPUB, ITS AFFILIATES AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, AGENTS, ADVISORS, CONSULTANTS AND COUNSEL.

14.0 ASSIGNMENTS

This Agreement shall be assignable (whether voluntarily or by operation of law) by any party only with the written consent of the other party, which consent shall not be unreasonably withheld.

15.0 ENTIRE AGREEMENT

This Agreement supersedes any and all proposals and/or understandings, oral and written, relating to the FIS and constitutes their sole and only Agreement relating to the FIS, and it shall not be construed as creating any obligation of either Party to construct facilities, interconnect to BPUB's system or for BPUB to provide electrical distribution or transmission service.

16.0 AMENDMENT

The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by the Parties.

17.0 NO PARTNERSHIP

The FIS shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

18.0 SUCCESSORS AND ASSIGNS

This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns.

19.0 REPRESENTATIONS AND WARRANTIES

Each Party represents and warrants to each of the other Party that:

(a) It is duly organized, validly existing and in good standing under the laws of its state of organization and is duly qualified and in good standing under the laws of any other jurisdiction in which its business requires it to be so qualified. It has the requisite power and authority to enter into this Agreement and to fulfill its obligations hereunder;

(b) This Agreement has been duly authorized, validly executed and delivered by it and the individuals signing this Agreement on behalf of it have the full legal power, authority and right to execute and deliver this Agreement and to bind it hereunder;

(c) This Agreement constitutes a valid and legally binding agreement enforceable against it in accordance with its terms, except as the enforceability hereof may be limited by bankruptcy, insolvency or similar laws affecting creditors' rights generally; and

(d) The execution, delivery and performance by it of this Agreement require no approval, consent or authorization of any third parties (including governmental authorities), and do not contravene or constitute a default (with or without notice or the passage of time or both) under its articles of incorporation, bylaws or other governing documents, or any law, rule or regulation, or any other agreement or instrument binding upon it or to which it or its assets are subject.

20.0 SURVIVAL OF OBLIGATIONS AND LIABILITIES

The termination of this Agreement shall not relieve any Party of its obligations, duties, requirements, or rights under this Agreement incurred, or vested prior to termination of this Agreement or which, pursuant to the terms hereof, must be fulfilled after the date of termination of this Agreement.

21.0 EXECUTION BY COUNTERPARTS

This Agreement may be executed in any number of counterparts, and upon execution of this Agreement by all Parties, the executed counterparts together shall have the same force and effect as an original instrument and as if all Parties had signed the same instrument. Any signature page of this Agreement may be detached from any counterpart hereof without impairing the legal effect of any signature thereon, and may be attached to another counterpart of this Agreement identical in form hereto but having attached to it one or more signature pages.

22.0 THIRD PARTY BENEFICIARIES

This Agreement is being made and entered into solely for the benefit of the Parties, and no Party intends hereby to create any rights in favor of any other person, as a third party beneficiary of this Agreement or otherwise, except for (a) permitted successors and assigns and (b) rights and benefits of persons pursuant to the releases, discharges and waivers, the limitation of liability, and the indemnification set forth in Section 13.

23.0 INVALID PROVISIONS

If any provision in this Agreement is held to be illegal, invalid or unenforceable under present or future laws, such provision shall be fully severable; this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid or unenforceable provision, a provision as similar in terms to such illegal, invalid or unenforceable provision as may be possible, and be legal, valid and enforceable shall govern.

24.0 NO FURTHER OBLIGATION

This Agreement commits BPUB only to perform the FIS, as contemplated by the terms hereof, and nothing in this Agreement shall commit BPUB to facilitate or guarantee to take any additional steps towards the procurement or installation of any facilities, or to accommodate the point of delivery of the Project to the BPUB system. Without limitation or modification of the foregoing, BPUB and Customer acknowledge and agree that many factors, including factors outside the control of either party, may affect the feasibility and schedule of the Project. The Customer agrees that it shall not assert, and hereby waives, any complaint that the Project was delayed by the undertaking of the FIS or acts or omissions by BPUB in connection with the Project.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first written above.

Public Utilities Board of the City of Brownsville, Texas

By: _____

Name: _____

Title: _____

Date: _____

Click or tap here to enter text.
By: _____

Name: _____

Title: _____

Date: _____

Attachment 1
Scope of Full Interconnection Study

Full Interconnection Study Scope: ERCOT Request # Click or tap here to enter ERCOT INR. Click here to enter name of company and facility.

Customer has requested the addition of the Project under the Interconnection Request. The anticipated in-service date of the Project is 6/15/2023.

BPUB will perform the Full Interconnection Study (FIS) to analyze the impact of interconnecting the Project to the ERCOT transmission system at the location indicated by Customer. The FIS is being conducted under this Agreement consistent with the scope set forth in this Attachment 1. In the event of conflict between this scope and the terms of the Agreement, the terms of the Agreement shall control.

The purpose of the FIS is to identify effective and efficient means for accommodating the interconnection request while continuing to maintain the reliability of the ERCOT system. The FIS will adhere to Section 5 of the ERCOT Planning Guide ("ERCOT Procedure"), NERC Reliability Standard FAC-002, the ERCOT Planning Criteria, the BPUB Transmission Planning Criteria, and BPUB's Facility Connection Requirements.

The purpose and assumptions for each component are described below.

FIS Components

STEADY STATE STUDY

The Steady State Study consists of power flow analyses to determine expected overloads and voltage limit violations for normal transmission operation and under contingency conditions. Transmission upgrade alternatives will be defined to correct for normal system and contingency overload and voltage violations within the ERCOT system.

BPUB will utilize the latest approved ERCOT Steady State Working Group ("SSWG") summer peak and off-peak cases as a starting point for the Steady State Study. Any generation resources planned by the anticipated in- service date of the project but not currently included in the SSWG cases utilized for the analysis that could have a material impact on the study results are modeled. Due to confidentiality restrictions, BPUB will not provide to Customer any detail of planned generation resources BPUB has added to the cases for this analysis.

The Project will be reflected in the cases in accordance with data provided in the Customer's Resource Asset Registration Form ("RARF"). The following general principles are followed for the steady state analysis:

- Benchmark cases are created with all starting SSWG case changes but without the proposed facility modeled;
- Change cases are created by modeling the Project within the benchmark cases utilizing one or more potential interconnection configurations. If needed to maintain the swing generator within real power limits after the addition of the Project, generation within the ERCOT Interconnection

outside of the area of study is scaled appropriately.

- NERC planning events are simulated on the benchmark and change cases. Certain NERC extreme events may be included in the simulations as deemed appropriate by BPUB.
- Contingencies which result in violations of BPUB's transmission planning criteria as a result of installation of the Project are identified.
- A general description of facilities required to mitigate transmission planning criteria violations related to the installation of the Project is developed and documented.

The Steady State Study is estimated to be completed and a preliminary report issued within ninety (90) calendar days after the Agreement is executed, payment is received, and any additional required data for the Project is provided. Such time may vary depending upon the volume of other required transmission system activities.

SHORT CIRCUIT STUDY

The Short Circuit Study assesses the impact of increased levels of fault current in the study region resulting from interconnection of the Project. A short circuit starting case for one of years two through five in the near-term planning horizon will be selected to develop a short circuit change case to reflect the addition of the Project and associated transmission improvements that are consistent with the configuration studied and recommended in the steady-state study.

Fault currents at selected transmission buses will be calculated for three-phase and single line- to-ground faults in both the starting and change short circuit cases. BPUB will identify existing transmission service provider ("TSP") facilities that need to be upgraded as a result of the increased short circuit duties. These facilities are in addition to those identified in the Steady State Study.

The Short Circuit Study is estimated to be completed and a preliminary report issued within thirty (30) calendar days following the completion of the Steady State Study. Such time may vary depending upon the volume of other required transmission system activities. This time estimate is exclusive of any delays in obtaining required data needed for these studies.

DYNAMIC STABILITY STUDY

A Dynamic Stability Study will be performed for the purpose of identifying undesirable behavior of the Project, or undesirable behavior of other interconnected machines induced by interconnection of the Project, resulting from transmission disturbances. Such analysis may determine additional system improvements beyond those identified in the steady-state analysis in order to accommodate the Project. The Dynamic Stability Study will utilize: (1) one or more network models from the latest approved ERCOT Dynamic Working Group ("DWG") flat start set modified to include the steady state representation of the Project and associated transmission improvements that are consistent with the configuration studied and recommended in the steady-state study; and (2) corresponding ERCOT Dynamics Work Group dynamics model data file modified to include the dynamic models and parameters of the Project provided in the Customer's Resource Asset Registration Form ("RARF"). The Project will be modeled at or near full net capability unless there is sufficient reason to believe risks are greater at reduced levels. When appropriate, Emergency Response Service ("ERS") high set relay data will be added to the dynamics data set, as well as Under Frequency Load Shed ("UFLS") and/or Under Voltage Load Shed ("UVLS") protection relay data.

Selected disturbances which conform to NERC Reliability Standard TPL-001-4 and the ERCOT Planning

Criteria will be simulated to evaluate the ability of the Project to maintain stability or remain connected to the system. If simulation results show the Project is experiencing instability or tripping, the contingency will be noted in the report. Where stability issues are observed, additional facility requirements will be identified and tested. Special protection systems may be identified and proposed as an alternative to transmission line or other equipment additions, if reasonable. Depending on the nature of limitations in the region under study, the two areas of concern following a disturbance are:

- Rotor Angle Stability: This is the ability of the interconnected synchronous machines within the ERCOT interconnection to remain in synchronism. The focus of this type of analysis is typically on the impact the Project has on critical clearing times for faults on transmission facilities nearby to the Project and any other interconnected generators.
- Voltage Stability: This is the ability of the transmission system to maintain steady acceptable voltages at all buses in the system. This type of analysis is typically more of a focal point for those situations where non-synchronous machines and inverter-based facilities are interconnected within areas of the system characterized by marginal voltage regulation or otherwise lacking robust voltage regulation.

The Dynamic Stability Study is estimated to be completed and a preliminary report issued within ninety (90) calendar days following completion of the Steady-State Study. Such time may vary depending upon the volume of other required transmission system activities. This time estimate is exclusive of any delays in obtaining required data needed for the studies.

SUBSYNCHRONOUS RESONANCE STUDY(Not required for this FIS)

A Sub synchronous Resonance (SSR) Study is required If ERCOT identifies in the Screening Study that the Project will become radial to one or more series capacitors in the event of less than 14 concurrent transmission outages. The purpose of the SSR Study is to determine which system configurations create vulnerability to SSR and includes a frequency scan assessment and/or a detailed SSR assessment.

A frequency scan assessment identifies the potential for the following phenomena:

- Induction generator effect
- Sub synchronous control interaction
- Torsional interaction
- Torque amplification

A detailed SSR assessment involves an electromagnetic transient analysis designed to identify the extent and effect of potential SSR oscillation on both the Project and the interconnected system. Depending on the SSR Study results, SSR countermeasures or SSR monitoring may need to be employed pursuant to the ERCOT Protocols. If required, the SSR Study is estimated to be completed and a preliminary report issued within ninety (90) calendar days following completion of the Steady-State Study. Such time may vary depending upon the volume of other required transmission system activities. This time estimate is exclusive of any delays in obtaining required data needed for the studies.

FACILITY STUDY

The Facilities Study will provide a description of the proposed interconnection facilities, including cost estimates, one-line diagram, and estimated time to complete the construction of such facilities. The

Facilities Study will be based upon: 1) applicable results of the Steady-State Study, Short Circuit Study, and Dynamic Stability Study previously discussed in this scope; and 2) additional assumptions as mutually agreed upon by Customer and BPUB. The scope of the Facilities Study will be limited to BPUB-owned facilities recommended and defined in the Steady-State Study, Short Circuit Study, and Dynamic Stability Study. All such facilities will be in accordance with Title 16 Texas Administrative Code § 25.195. If improvements to non-BPUB owned TSP systems are identified, Customer will be required to establish a separate facilities study agreement with these TSPs.

The Facilities Study is estimated to be completed and a preliminary report issued within ninety (90) calendar days after completion of the Dynamic Stability Study. Such time may vary depending upon the volume of other required transmission system activities. This time estimate is exclusive of any delays in obtaining required data needed for the studies.

DELIVERABLES

BPUB will provide the following documentation associated with the analysis defined in this scope:

- A Steady State Study report will be issued discussing the contingencies reviewed and identifying violations of the BPUB transmission planning criteria and ERCOT transmission planning criteria. A description of alternatives reviewed for correcting the violations and resulting system improvement recommendations will be included;
- A Short Circuit Study report identifying system fault duty increase caused by the addition of the Project and a list of existing facilities that need to be upgraded as a result of the increased short circuit fault duties;
- A Dynamic Stability Study report which identifies disturbances resulting in dynamic stability problems, if any, along with recommended solutions. The report will describe the study assumptions, contingencies simulated, and the results of each simulation. Plots of machine and system electrical parameters will be provided to verify the stability of the Project for each simulation; and
- A Facilities Study report documenting any proposed interconnection facilities and system upgrades of BPUB-owned facilities which will include cost estimates, one-line diagrams, and estimated time to complete the construction of such facilities.

Documents and other information produced and used for this study are to be supplied in an electronic media format. Hard copies are supplied upon request.

REQUESTER REQUIREMENTS

In order to complete the FIS under the defined schedule the requester will be responsible for providing all data required for modeling the Project in steady-state, short circuit and dynamic stability studies, if not already provided in the Customer's RARF corresponding to the Project, within ten (10) business days following the execution of the Agreement between the Parties. Such data includes, but is not limited to, the following:

- For generator plants:
    - Minimum and maximum power output
    - Generator real and reactive power output curves

- Generator step-up transformer specifications

- For energy storage facilities
  - Maximum charge power
  - Maximum discharge power
  - Inverter reactive power capability
- Voltage control mode, controlled bus and other planned reactive power equipment specifications
- Specific dynamic models and modeling parameters, as applicable, for generator, reactive control, boiler, turbine, governor, PSS, pitch control, voltage and frequency protection, etc. Refer to section 6.2.1 of the ERCOT Planning Guide for reference
- SSR modeling data
- One-line(s) indicating proposed connection of the Project to the existing BPUB system
- Data required to model any proposed transmission lines between Customer facilities and interconnection point(s) on BPUB's system
- All data that is requested in the ERCOT Generation Interconnection Procedure
- Any other data required by BPUB to complete the FIS for the Customer.

SCHEDULE AND ESTIMATE OF COST

The schedule for the completion of the FIS is 270 calendar days after signing the Agreement and BPUB shall adhere to schedules/timelines outlined in the ERCOT Procedure. This timeline is exclusive of delays in obtaining data that is required to facilitate this generation interconnection request.

Item	**Task**	**Preliminary Report (Days)**	***Estimated Cost ($)***
1	Steady State Study	90[1]	*$25,000*
3	Short-Circuit Study	30[2]	*$10,000*
4	Dynamic Study	90[1]	*$30,000*
5	SSR Study	90[3]	
6	Facilities Study	90	*$10,000*

Notes:
(1) These studies will result in a study time of 180 days plus the time to perform the Facilities Study.
(2) Ran concurrent with the Dynamic Stability Study.
(3) Ran concurrent with the Steady State and Dynamic Stability studies.

BPUB and Customer will confer informally from time to time as the studies progress so that each Party is informed about interim study results and can confer about possible system designs and solutions to potential transmission and facility interconnection problems either already known or identified in the study process.

MISCELLANEOUS

- Confidentiality requirements in the ERCOT Procedure will govern all communications.
- BPUB will contact Customer, ERCOT and other TSPs as needed during the FIS to clarify issues.
- As part of the interconnection process, the following items will be sent to the ERCOT

Transmission Owner Generation Interconnection e-mail list for review and comment.

1. This scope of study
2. Full Interconnection Steady-State Study report
3. Full Interconnection Short Circuit Study report
4. Full Interconnection Dynamic Stability Study report
5. SSR Study Report
6. Full Interconnection Facilities Study Report