

CUSTOMER SERVICE POLICY

CONTENTS

1.0	STATEMENT OF GENERAL POLICY	- 2 -
2.0	ELECTRICAL SERVICE	- 3 -
2.1	ELECTRICAL SERVICE AVAILABILITY AND CHARACTERISTICS	- 3 -
2.2	LARGE-LOAD REQUIREMENTS	- 3 -
2.3	ELECTRICAL SERVICE IN DOWNTOWN TACOMA	- 5 -
2.4	GENERAL CONDITIONS FOR SERVICES	- 5 -
2.5	LIMITATIONS	- 8 -
3.0	TEMPORARY SERVICE	- 8 -
4.0	SHORT-TERM SERVICE CONNECTIONS	- 8 -
5.0	SINGLE-FAMILY DWELLING UNITES, MOBILE HOMES AND DUPLEXES	- 8 -
6.0	MULTI-FAMILY, COMMERCIAL, AND INDUSTRIAL SERVICES	- 9 -
7.0	RESIDENTIAL DEVELOPMENTS PRIMARY VOLTAGE SYSTEM	- 12 -
8.0	RESIDENTIAL DEVELOPMENTS BY LOCAL IMPROVEMENT DISTRICT	- 12 -
9.0	OVERHEAD-TO-UNDERGROUND CONVERSION BY L.I.D.	- 13 -
10.0	PREPAID OVERHEAD-TO-UNDERGROUND PRIMARY LINE CONVERSION	- 15 -
11.0	MOBILE AND FACTORY-BUILT HOME DEVELOPMENTS	- 16 -
12.0	COMMERCIAL AND INDUSTRIAL PRIMARY-METERED SERVICE (12.5 kV and 13.8 kV)	- 16 -
13.0	METERS	- 18 -
13.1	SUB-METERING	- 19 -
13.2	METER ON PRIVATE POLE	- 20 -
13.3	METERING TRANSFORMER MINIMUM RATING REQUIREMENTS	- 20 -
13.4	TOTALIZED AND INTERVAL DATA METERING	- 20 -
13.5	PULSES	- 21 -
13.6	METER TAMPERING AND POWER DIVERSION	- 21 -
13.7	CUSTOMER-REQUESTED METER TEST	- 21 -
14.0	CUSTOMER OWNED GENERATION – UTILITY INTERCONNECTION	- 21 -
15.0	PUBLIC AGENCY REQUESTED INSPECTIONS	- 22 -

CUSTOMER SERVICE POLICY

1.0 STATEMENT OF GENERAL POLICY

The Public Utility Board has adopted these Customer Service Policies in the interest of consistency, safety, efficiency, and economy in the distribution of electricity. The purpose of these Policies are to help Customers obtain electrical Service and to guide Tacoma Power employees in providing such Service to Customers. These Policies are subject to revision by the Public Utility Board to achieve these objectives and purposes.

The 2013 revisions to these Policies shall supersede and amend all previously adopted Policies and shall become effective December 18, 2013. These Policies are adopted pursuant to the authority of Tacoma Municipal Code (TMC) Section 12.06.330.

If these Policies conflict with Rate Schedules, the Electrical Code of the City of Tacoma, the TMC, or contract provisions, then the Rate Schedules, the Electrical Code of the City of Tacoma, the TMC, or contract provisions shall apply.

The table below provides a checklist of the sections of this document that generally apply to each major building category. The checklist is not intended to be a comprehensive guide that replaces a careful reading of the entire Customer Service Policies document. Rather, it is intended to aid users by highlighting the sections most generally applicable.

SECTIONS APPLYING BY MAJOR BUILDING CATEGORY

Section	Single-Family Residential	Mobile Home Residential	Multi-Family Residential	Commercial	Industrial	Other
1.0	√	√	√	√	√	√
2.0	√	√	√	√	√	√
3.0	√	√	√	√	√	√
4.0				√		√
5.0	√	√				
6.0			√	√	√	√
7.0	√	√	√			
8.0	√	√	√			
9.0	√	√	√			
10.0	√	√	√			
11.0		√				√
12.0				√	√	√
13.0	√	√	√	√	√	√
14.0	√	√	√	√	√	√
15.0	√	√	√	√	√	√

CUSTOMER SERVICE POLICY

Note that a number of terms used in this document are defined in the Definitions section of this policy.

2.0 ELECTRICAL SERVICE

Prospective Customers are required to contact the Tacoma Power New Services Engineering Office prior to construction for information on available voltages and for assistance in obtaining the desired type of electrical service. Existing customers are required to contact the Tacoma Power Electrical Inspection Office prior to making any changes to their existing wiring or Load. Electrical Services Office hours are 7:30 a.m. to 5:00 p.m., Monday through Friday, excluding City holidays.

Most Tacoma Power Standards that apply to Customers, including information on electrical Service and permit requirements, can be found on the Tacoma Power Website, www.mytpu.org/tacomapower/permitting.

2.1 ELECTRICAL SERVICE AVAILABILITY AND CHARACTERISTICS

- A. Electrical Service is available at 60 hertz, single-phase and three-phase, and in delivery voltages up to 115,000 volts.

Tacoma Power will determine the Service voltage to be furnished depending on the characteristics of the Distribution system near the point of Service and on the Customer's electrical needs.

- B. Service voltages will be provided within the acceptable range established by current American National Standards Institute (ANSI) Standard C84.1-2006.
- C. The quality of power supplied by Tacoma Power is in accordance with Institute of Electrical and Electronics Engineers (IEEE) Standard 446-1980, Section 3.11.3, Table 3-7, and ANSI Standard C84.1a-2006.

2.2 LARGE-LOAD REQUIREMENTS

- A. For the purpose of this section a large electrical Load will be defined as any Load of 8 Megavolt-amperes (MVA) or greater. The following requirements will apply to new or expanded existing single Loads equal to or greater than 8 MVA. Exceptions to these large electrical Load requirements may be granted by Tacoma Power on a case by case basis depending on the Customer's property utilization and Tacoma Power's Distribution system availability.

CUSTOMER SERVICE POLICY

1. The connection of large electrical Loads to the electrical system must be at the Transmission voltage level. Proposals for new or expanded Loads of this magnitude will trigger a system study to be performed by Tacoma Power. An exception to the Transmission connection requirement may be granted, but only if Tacoma Power determines through a Customer-funded system study that connection can take place at Distribution voltage without causing Tacoma Power to operate in violation of existing 12.5 kV or 13.8 kV Distribution standards, codes, planning and operation criteria, or regulations governing safe and prudent electric utility practices. If an exception is granted, the Customer will be required to participate in the funding of the installation or upgrading of Distribution feeders, including feeders that will be used as redundant feeds to the Customer's Load.
2. Electrical Service requests that are required to be served at the Transmission voltage level will require negotiation of a power sales contract with Tacoma Power and approval of the power sales contract by the Public Utility Board.
3. Service rates will be defined by the published Tacoma Power rate schedules, or as otherwise defined in the Customer's power sales contract.
4. If an exception is granted to connect an 8 MVA or greater new or expanded Service to Tacoma Power's 12.5 kV or 12.8 kV Distribution system, the metering system can take the form of:
 - a. Primary metered: The number of metering points provided shall be minimized and Tacoma Power will make final determination on the number and location of metering points offered. Where the site is a secure facility, Tacoma Power may require the facility be primary metered. Applicable Primary Service rates will be defined by the published Tacoma Power rate schedules.
 - b. Secondary metered from multiple points: Applicable Secondary Service rates will be defined by the published Tacoma Power rate schedules.
5. In either metering case as defined in section 4 above, a negotiated power sales contract will be required with Tacoma Power to clarify the Customer's costs for the Distribution system and redundancy that is required by the Customer and Tacoma Power's planning and operational criteria. System capital and annual maintenance costs

CUSTOMER SERVICE POLICY

for Transmission and substation capacity may apply. Annual maintenance contracts for Tacoma Power's owned and dedicated substation and Distribution equipment may also apply.

- B. New and expanded existing Loads less than 8 MVA may be required to connect to the electric system at the Transmission level if Tacoma Power determines the customer's Load will cause Tacoma Power to operate in violation of existing 12.5 kV or 12.8 kV Distribution standards, codes, planning and operational criteria, or regulations governing safe and prudent electric utility practices.
- C. All Customers taking Service at Transmission voltages through a Customer-owned switchyard and substation will be subject to Tacoma Power's current Technical Connection Requirements for Load Delivery Facilities, which define the responsibilities for furnishing, installing, owning, and maintaining the substation needed for operation, including structures required for metering transformers, conduits for metering, and Tacoma Power's protective relays.

2.3 ELECTRICAL SERVICE IN DOWNTOWN TACOMA

Special requirements apply to electrical Service in the downtown Tacoma area bounded approximately by South 7th Street to the north, South 17th Street to the south, Interstate 705 to the east, and Fawcett Avenue to the west. The Customer must contact the Tacoma Power New Services Engineering and Electrical Inspection Offices regarding all new or modified Service installations. Customers must submit an application for Electrical service to the New Services Engineering Office early in the design phase of the project.

More information can be found on the Tacoma Power Web site www.mytpu.org/tacomapower/permitting

2.4 GENERAL CONDITIONS FOR SERVICES

A. Electrical Services

- 1. All electrical Services shall conform to current Tacoma Power requirements. Customers are required to properly maintain their equipment on a regular basis. Customers shall be held responsible if their lack of proper maintenance adversely affects Tacoma Power's facilities.

Tacoma Power

CUSTOMER SERVICE POLICY

2. The Customer shall provide electric Service equipment in accordance with current Tacoma Power Standards, the Electrical Code of the City of Tacoma, applicable city and State Codes, the NEC, and the Electric Utility Service Equipment Requirements Committee (EUSERC) requirements.
 3. The Customer shall pay Tacoma Power the prescribed costs for the Service prior to any construction by Tacoma Power. Such costs shall be as determined in writing by the Director of Utilities per Chapters 12.01 and 12.06, TMC.
 4. Only one Single Phase and/or Three Phase Service per service voltage level will be supplied to each building. Any exceptions require the approval of Tacoma Power New Services Engineering.
 5. When Tacoma Power identifies electrical installations as unsafe and disconnects electrical Service, reconnection will require purchase of a Tacoma Power electrical permit, upgrade of the installation in accordance with the requirements of this section, approval of all required inspections, and payment of required fees and charges.
- B. Tacoma Power reserves the right to access Customer premises for meter reading, inspection, and testing, or for installing, removing, repairing, or replacing Tacoma Power's equipment. As part of the right to access, Tacoma Power reserves the right to de-energize equipment when necessary for maintenance. Access to Tacoma Power's equipment shall be in accordance with Section 12.06.050b of the TMC. Failure to provide access could result in disconnection.
- C. Customers must obtain a Tacoma Power electrical permit before performing any modifications to their electrical installations.
- D. Customers must report Load additions or deletions that may cause damage to Tacoma Power's facilities. Customers will be charged for damages, replacing the metering, and the loss of revenue from inaccurate metering.
- E. Constructing permanent structures beneath primary overhead electrical Distribution lines, Transmission lines, or above buried primary Distribution lines is prohibited. State and NESC codes require clearance between structures and electrical lines. Contact New Services Engineering regarding proper clearances.

Tacoma Power

CUSTOMER SERVICE POLICY

F. Primary Line Extensions

1. All new Primary Line Extensions of 15 kV and less within the Tacoma city limits must be underground and shall comply with the policies set forth in City Council Resolution No. 19022 adopted January 31, 1967, or related amendatory or superseding resolutions. Primary Line Extension within any other cities or towns that are served by Tacoma Power must comply with the ordinance of the respective cities. When the proposed development is outside the Urban Growth Area of any city in this state, Tacoma Power may exercise its discretion to allow the primary system to be overhead.
2. The Customer must prepay all costs before any construction by Tacoma Power. Payments for Primary Line Extensions will be made in accordance with Tacoma Power's Transmission & Distribution procedures and the Letter of Agreement between Tacoma Power and the Customer or developer.
3. Refunds will be made to Customers for new permanent Services added to a primary extension or a portion of the extension within a three-year period after completion of the primary extension. Refunds will be based on the payments made to Tacoma Power, per Section 2.4.F.2. Cumulative refunds will not exceed the Customer's initial investment in the primary extension. Refunds for Primary Line Extensions will be calculated in accordance with Tacoma Power's Transmission & Distribution procedures.

G. Some equipment, particularly but not solely limited to motors and welders, can cause voltage and current fluctuations that are detrimental to the safe and efficient operation of electrical systems. The Customer is responsible to ensure that proper safeguards exist to ensure that operating any plant or equipment will not cause abnormal voltage fluctuations, overloading, short circuits, ground faults, low voltage, or cause damage or improper operation of Tacoma Power's or other Customer's operations or equipment.

1. If abnormal fluctuations or damage to equipment is detected, Tacoma Power may require that corrective actions be taken at the Customer's expense. If the damages to others are substantial, the electrical Service to the offending Customer may be disconnected until corrective action is taken.

CUSTOMER SERVICE POLICY

2. The Customer will be solely liable for any damages incurred by Tacoma Power and/or other Customers caused by his/her power quality problems.
3. Customers shall meet Tacoma Power's Voltage Flicker Limits standards that apply to motor and other Loads, as specified in Tacoma Power's Electric Service Handbook and in the Tacoma Power Standards, provided on Tacoma Power's Web site www.mytpu.org/tacomapower.

2.5 LIMITATIONS

Tacoma Power is not responsible for losses or expenses directly or indirectly caused by power disturbances, including but not limited to business or production losses or any damage to Customer equipment. It is the Customer's responsibility to provide and maintain power-conditioning devices to protect sensitive electric Loads.

3.0 TEMPORARY SERVICE

Upon receiving a Customer request for temporary Service, Tacoma Power will determine availability, charges, and Service requirements. The Customer shall pay for temporary Service prior to installation.

4.0 SHORT-TERM SERVICE CONNECTIONS

Short-term Service connections for Christmas tree lots, fireworks stands, and other comparable short-term activities are available. Customers requesting such Service shall obtain a permit from the Electrical Inspection Office and shall pay for all charges in advance, including the cost of energy, Service installation, removal, and electrical permit fees.

Additional charges will be assessed if a transformer installation is required. Upon the Customer's request and with Tacoma Power's approval, Service may be furnished from either an overhead or an underground primary system.

5.0 SINGLE-FAMILY DWELLING UNITS, MOBILE HOMES AND DUPLEXES

For the purpose of these Policies, single-family Dwelling Units (with the exception of duplexes) that share a common wall or built under a common roof, shall be considered Multi-Family Dwelling Units as covered in Section 6.0.

Tacoma Power

CUSTOMER SERVICE POLICY

A. Underground Service

1. For Underground Secondary Service, the Customer will be required to:
 - a. Furnish the trench, install conduit(s) and cable(s), and backfill the trench.
 - b. After Underground Secondary Service has been installed and energized, Tacoma Power will own and maintain the Secondary Service up to the Customer's service point. The service point is defined as the point where the Customer's Service conductors are connected to Tacoma Power's Service utility conductors.
2. Tacoma Power will not be responsible for the cost of replacing or repairing the Secondary Service wires, data wires, and conduits in the event wires or conduits have been damaged by dig-ins or other actions taken by or on behalf of the Customer and beyond the control of Tacoma Power.

B. Overhead Service

1. Tacoma Power will furnish, install, and maintain the Overhead Secondary Service wire.
2. However, Tacoma Power will not be responsible for the cost of replacing or repairing the Secondary Service wires and data wires in the event the wires have been damaged by actions taken by or on behalf of the Customer and beyond the control of Tacoma Power.
3. The Customer will be responsible for trimming and removing trees and other vegetation away from the Service wire(s) on the Customer's property.

6.0 MULTI-FAMILY, COMMERCIAL, AND INDUSTRIAL SERVICES

- A. Customers who require an electrical Distribution system shall sign a Letter of Agreement with Tacoma Power's New Services Engineering Office and pay the appropriate construction charges prior to construction.

Tacoma Power

CUSTOMER SERVICE POLICY

B. Secondary Service

1. Underground

- a. The Customer will be required to furnish and install civil and electrical systems associated with Underground Secondary Service in accordance with Tacoma Power Standards.
- b. All secondary conductors shall be installed before the transformer is set in place. The Customer shall pay for crew labor costs for removing the transformer to pull the secondary conductors.
- c. Tacoma Power will make all secondary connections at the transformer or Secondary Service box.
- d. In the event of an underground service failure, the customer will be responsible for replacing the secondary service wires, data wires, and the conduits from the Customer's service equipment to the secondary service box or transformer.

2. Overhead

- a. Tacoma Power will furnish, install, and maintain the overhead Service wire.
- b. The Customer will be responsible to trim or remove trees and other vegetation away from the Service wire on his/her property.

C. The Customer will be solely responsible for the cost of replacing or repairing the secondary service wires or data wires in the event said wires have been damaged by causes beyond the control of Tacoma Power Primary Voltage System

1. All primary voltage system (PVS) designs must be approved by an electrical engineer licensed in the State of Washington prior to submittal to Tacoma Power to plan review.
2. The Customer shall install and maintain transformer Vault(s), junction Vault(s), walk-in Vault(s), and transformer guard posts in accordance with current Tacoma Power Standards and meet any additional requirements Tacoma Power deems necessary.

Tacoma Power

CUSTOMER SERVICE POLICY

3. At the discretion of Tacoma Power, civil systems such as trenches, conduit, Vaults, and structures such as slabs, junction boxes, guard posts, metering apparatus for PVS may be installed either by the Customer or Tacoma Power at the Customer's expense.
 4. Customer-installed civil systems for PVS shall be installed by a qualified electrical contractor licensed in the State of Washington under RCW 19.28 and in accordance with current Tacoma Power Standards and any additional requirements Tacoma Power deems necessary. A Tacoma Power construction inspector shall inspect the installation.
 5. The Customer shall pay for all charges associated with each new or revised Service, including equipment installed by Tacoma Power, prior to any construction by Tacoma Power. For each permanently metered new Service or increase in Service capacity, a credit shall be given for the current cost of a transformer up to and including 500 kVA.
 6. Tacoma Power will install the PVS cable and make both the primary and secondary transformer terminations.
 7. Tacoma Power will own and maintain the primary conduits, cable, and transformers except Customer-owned primary equipment.
- D. Electrical Service to high rise buildings (20+ floors)
1. Developers of high rise buildings shall make provisions for transformer rooms at approximately 20 floor intervals in accordance with current Tacoma Power Standards.
 2. Special requirements apply to primary power cable routing and transformer room designs. The building design team must work closely with Tacoma Power engineering to arrive at an acceptable final power system design. Up to 18 months lead time for design coordination is required. Once the utility design is complete, then a construction schedule will be provided that includes the delivery time for long lead time materials. Engineering and material deposits will be required.
 3. Unless otherwise established by Tacoma Power's Engineering Office, the power system will be owned and operated by Tacoma Power. An access agreement will be required between the property owner and Tacoma Power to govern access, operation, maintenance, or replacement of equipment.

CUSTOMER SERVICE POLICY

4. A transportation agreement to install and service the transformers, equipment, and power cables will be required between Tacoma Power and the property owner.

7.0 RESIDENTIAL DEVELOPMENTS PRIMARY VOLTAGE SYSTEM

- A. Underground primary systems in residential developments shall conform to current Tacoma Power requirements. The Customer shall pay for all Tacoma Power installed equipment, except transformers, prior to any construction by Tacoma Power.
- B. A developer who requires an electrical Distribution system shall sign a Letter of Agreement with Tacoma Power's New Services Engineering Office and pay the appropriate construction charges prior to construction.
- C. These Policies will cover the installation of the electrical primary system and the Secondary Service to the corner of the lot closest to the transformer. Extending the Secondary Service run, when requested by the developer or property owner, shall be considered to be of special benefit to the property served, and construction charges shall be assessed in accordance with Tacoma Power policies.

8.0 RESIDENTIAL DEVELOPMENTS BY LOCAL IMPROVEMENT DISTRICT

- A. The Local Improvement District (L.I.D.) policy of Tacoma Power is authorized pursuant to Washington State law (Title 35, RCW) for projects initiated by property owners within a specific geographic area to accomplish a specific improvement project in cooperation with Tacoma Power.
- B. Installation of the electrical primary underground system shall not begin until the Customer meets the following conditions:
 1. All roadways shall conform to current Tacoma Power standards. Within the Tacoma city limits, all rights-of-way shall be cleared in accordance with standards of the City of Tacoma.
 2. Property surveys, including setting and maintaining of front lot corners, must be completed.
 3. Installation of all other underground facilities that are not to be included in a common trench with the electrical system (water, sewer, storm, etc.) must be completed.

CUSTOMER SERVICE POLICY

9.0 OVERHEAD-TO-UNDERGROUND CONVERSION BY L.I.D.

- A. Converting existing overhead primary electrical Distribution systems to underground can be accomplished when technically and economically feasible. Pursuant to RCW 35, conversion can be financed by an L.I.D. Converting power lines above 15 kV is beyond the scope of this Policy.
- B. Parties in the City of Tacoma interested in initiating an L.I.D. to convert existing overhead Distribution lines to underground Distribution lines, should contact Tacoma Department of Public Works, Engineering Division, L.I.D.
- C. Tacoma Power may require a deposit to cover the actual expenses associated with initial engineering work. Any unused portions of the deposit will be applied toward the project cost if the L.I.D. is formed or returned to the parties if the proposed L.I.D. is not formed
- D. Tacoma Power contributions to L.I.D. projects will be as follows:
 - 1. Residential L.I.D.s
 - a. Seventy percent of the total cost of converting the existing overhead primary electrical Distribution system to underground shall be provided by assessments against the property owners within the L.I.D. Assessments will be determined in accordance with all applicable Washington State laws.
 - b. Tacoma Power will provide 30 percent of the total cost of converting the existing overhead primary electrical Distribution system to underground.
 - 2. Commercial L.I.D.s – One hundred percent of the total cost of converting the existing overhead primary electrical Distribution system to underground shall be provided by assessments against the property owners within the L.I.D. Assessments will be determined in accordance with all applicable Washington State laws.
 - 3. Pilot Program for Brewery District Commercial L.I.D.s - For a three year period beginning April 1, 2018 and ending April 1, 2021, Tacoma Power will implement a ten million dollar pilot program to financially contribute to commercial and multi-family dwelling L.I.D.s and prepaid overhead to underground primary distribution line conversion projects. This program does not apply to transmission line conversion projects.
 - a. L.I.D. property owner assessments shall provide for 70 percent of the total cost of converting the existing overhead primary electrical

Tacoma Power

CUSTOMER SERVICE POLICY

distribution system to underground. L.I.D. Assessments will be determined in accordance with all applicable Washington State laws.

- b. Tacoma Power will provide 30 percent of the total cost of converting the existing overhead primary electrical distribution system to underground for commercial and multi-family dwelling development projects.
- c. Costs associated with forced relocation of existing underground non-electric facilities of enterprise utilities (such as water, sewer and storm) due to displacement by electrical distribution infrastructure being converted from overhead to underground, shall be included in the total cost of conversion, qualify for 30 percent contribution from Tacoma Power. For franchise utilities, Tacoma Power will exercise the City's franchise rights.
- d. The pilot program will be limited to the Brewery District area which is bounded on the north by South 17th Street, on the south by South Tacoma Way, on the west by Tacoma Avenue and on the east by Pacific Street.
- e. A total maximum aggregate of up to ten million (\$10,000,000.00) dollars may be used for the pilot program. The Director will monitor the pilot program and report annually to the TPU Board as to the utilization and implementation of the pilot program.
- f. The pilot program will be limited to projects that have secured assurance that all overhead infrastructure will be converted to underground.
- g. Distribution overhead to underground conversion projects must be of a minimum practical size; at least one block or 850 feet. The utility shall determine the practical limit where a block is defined by a non-alley paved street. Projects should include crossing to the far side of non-alley paved streets. Where applicable, practical, and financially efficient, and if distribution power infrastructure exists on both sides of the street, then infrastructure on both sides of the street shall be converted. Location of termination poles incorporating underground to overhead transitions will be determined by the utility. Said termination poles will be located near intersections where practicable.

- E. Any charges made against the L.I.D. for undergrounding Secondary Services and data conduit, telephone, fire alarm, cable TV, and street lighting circuits

CUSTOMER SERVICE POLICY

will not be included when determining the amount to be paid by Tacoma Power. These charges will be allocated per existing laws and franchise agreements.

- F. Converting Secondary Service on private property is not included in the L.I.D. The Customer must supply and install the secondary conductor and conduit from the meter to the Secondary Service box.

10.0 PREPAID OVERHEAD-TO-UNDERGROUND PRIMARY LINE CONVERSION

A. With the prior approval of Tacoma Power, an overhead Distribution line may be converted to underground at the expense of the Customer. The Customer will be required to designate a representative for the project, collect all costs associated with converting the primary line from the project participants, and pay Tacoma Power in advance of any engineering and construction scheduling.

B. As part of the pilot program for the Brewery District described in Section 9.D.3, for a three year period beginning April 1, 2018 and ending April 1, 2021, Tacoma Power will implement a ten million dollar pilot program to financially contribute to commercial and multi-family dwelling L.I.D. and prepaid overhead to underground primary distribution line conversion projects. This program does not apply to transmission line conversion projects.

a. Tacoma Power will provide 30 percent of the total cost of converting the existing overhead primary electrical Distribution system to underground for commercial and multi-family dwelling development projects.

b. The remaining seventy percent of the total cost of converting the existing overhead primary electrical Distribution system to underground shall be provided by the Developer or Commercial Customer in advance of any engineering and construction scheduling.

c. Costs associated with forced relocation of existing underground non-electric facilities of enterprise utilities (such as water, sewer and storm) due to displacement by electrical distribution infrastructure being converted from overhead to underground, shall be included in the total cost of conversion, qualify for 30 percent contribution from Tacoma Power. For franchise utilities, Tacoma Power will exercise the City's franchise rights.

d. The pilot program will be limited to the Brewery District area which is bounded on the north by South 17th Street, on the south by South

CUSTOMER SERVICE POLICY

Tacoma Way, on the west by Tacoma Avenue and on the east by Pacific Street.

- e. A total maximum aggregate of up to ten million (\$10,000,000.00) dollars may be used for the pilot program. The Director will monitor the pilot program and report annually to the TPU Board as to the utilization and implementation of the pilot program.
- f. The pilot program will be limited to projects that have secured assurance that all overhead infrastructure will be converted to underground.
- g. Distribution overhead to underground conversion projects must be of a minimum practical size; at least one block or 850 feet. The utility shall determine the practical limit where a block is defined by a non-alley paved street. Projects should include crossing to the far side of non-alley paved streets. Where applicable, practical, and financially efficient, and if distribution power infrastructure exists on both sides of the street, then infrastructure on both sides of the street shall be converted. Location of termination poles incorporating underground to overhead transitions will be determined by the utility. Said termination poles will be located near intersections where practicable.
- h. Any costs for undergrounding Secondary Services and data conduit, telephone, fire alarm, cable TV, and street lighting circuits will not be included when determining the amount to be paid by Tacoma Power. These costs will be provided by the Developer or Commercial Customer per existing laws and franchise agreements.
- i. Converting Secondary Service on private property is sole financial responsibility of the Developer or Commercial Customer. The Customer must supply and install the secondary conductor and conduit from the meter to the Secondary Service box.

11.0 MOBILE AND FACTORY-BUILT HOME DEVELOPMENTS

The developer of a mobile home or factory-built home development will contact Tacoma Power's New Services Engineering Office for specifications, agreements, and applicable Tacoma Power requirements.

12.0 COMMERCIAL AND INDUSTRIAL PRIMARY-METERED SERVICE (12.5 kV and 13.8 kV)

Tacoma Power

CUSTOMER SERVICE POLICY

- A. Ownership of primary-metered Service: With the approval of Tacoma Power primary metered Service can be obtained as follows:
1. Customer-owned equipment: The Customer shall furnish, install, own, and maintain primary equipment, including cables, simultaneous disconnect switch, transformer(s), and connection to the Load side of the metering current transformers, in accordance with the Electrical Code of the City of Tacoma, the NEC, and applicable city and State codes.
 2. Tacoma Power-owned equipment: Tacoma Power may consent to furnish, install, own, and/or maintain primary metered equipment, including cables, simultaneous disconnect switch, transformers, and all connections at the metering current transformers and power transformer(s), in accordance with Tacoma Power Standards and design criteria. Electric rates and charges will take into account Tacoma Power's additional cost incurred in this alternative.
- B. Customers owning primary voltage equipment may be allowed to transfer ownership and/or control of some or all of the equipment to Tacoma Power to own, operate, and/or maintain. Upon request by the Customer and on a case-by-case basis, Tacoma Power will review Customer-owned systems. Acceptance of ownership and/or control of such systems will be at Tacoma Power's sole discretion, and will depend upon the system and equipment meeting current Tacoma Power Standards and design criteria and a determination that other Customers will be economically unharmed by such action. After transferring ownership and/or control of primary voltage

Tacoma Power

CUSTOMER SERVICE POLICY

equipment to Tacoma Power, Customers would not be eligible for any applicable rate discount for ownership and maintenance of primary voltage equipment.

- C. Due to fire department safety concerns regarding two or more power sources to a building, Tacoma Power will not provide additional Service to any building served with a primary-metered Service. Multiple-metered Service may be provided to a site that has detached buildings or structures.

13.0 METERS

- A. All metering shall comply with Tacoma Power Standards. Customers should contact Tacoma Power's New Services Engineering and Electrical Inspection Offices for standards governing meter and metering transformer installations. The Electrical Inspection Office, in coordination with Tacoma Power's Meter/Relay Shop, will specify and approve meter installations in accordance with current Tacoma Power Standards, the NEC, and the Electrical Code of the City of Tacoma.
- B. All metering equipment provided by Tacoma Power to serve a Customer shall remain the property of Tacoma Power. All metering equipment furnished by the Customer (including enclosures, cabinets, conduits, and meter sockets) shall remain the property of the Customer. Tacoma Power's electrical Service and responsibility extend from Tacoma Power's system up to, but not beyond, the Service Point as determined by New Services Engineering.
- C. For multiple-metered locations, meter sockets must be permanently and legibly marked and maintained with the permanent service address on the exterior so that it is visible in accordance with the NEC. The property owner is responsible for ensuring that meter socket markings accurately indicate the locations being billed.

If meter sockets are incorrectly marked so that a Customer is billed for another Customer's use (cross-billed), Tacoma Power will determine correct billing quantities for the cross-metered Customer. The property owner will be responsible for any insufficiency of electric revenue recovery from cross-metered Customers plus any reasonable investigation and collection costs incurred by Tacoma Power.

Tacoma Power will notify the property owner of the least-cost method for cross-metered revenue recovery.

- D. When additions or alterations are made that require the relocation of a meter, the Customer will relocate the meter in accordance with current Tacoma

CUSTOMER SERVICE POLICY

Power Standards and the NEC at his or her expense. The Customer must obtain an electrical wiring permit from the Tacoma Power Electrical Inspection Office before starting the work.

- E. The meter location shall not be concealed by materials of any kind and must be readily accessible at all times. If the Customer blocks a clear path to the meter, or if the meter is subject to damage because of its location, the Customer may be required, at his or her expense, to provide a new and suitable meter location and make the necessary wiring changes.

13.1 SUB-METERING

- A. Each newly constructed or updated Dwelling Unit shall be independently metered by Tacoma Power per the Electrical Code of the City of Tacoma.

Additional non dwelling unit metering facilities may be installed on the Load side of the Customer's billing meter(s) at the Customer's expense under the following conditions:

1. There are no adverse impacts to Tacoma Power or other Customers.
2. All materials, devices, appliances, and equipment not exempted in Chapter 19.28 RCW must be tested or field-evaluated by a testing laboratory accredited by the State Department of Labor and Industries. Installation of the equipment shall be in accordance with the NEC and Tacoma Power Standards.
3. If Customer-owned metering is used to apportion the cost of power at the billing meter(s) between the Customer's tenants, only the cost of power at the billing meter(s) plus a nominal administrative fee may be collected solely for the recovery of the cost of power at the billing meter(s). The nominal administrative fee shall not exceed 10 percent of the monthly electric utility billing amount for each tenant, or \$5.00 per month, whichever is less. Revenue so collected from tenants by the Customer will not be considered in violation of TMC, Section 12.06.120, "Resale of Electric Energy Prohibited". Beyond enforcement of these restrictions, Tacoma Power has no role in investigating or resolving private Customer/tenant billing administration disputes.

CUSTOMER SERVICE POLICY

- B. If a sub-metering site is found to be causing damage to Tacoma Power or its Customers, Service to the offending Customer may be suspended until corrective action is taken.

13.2 METER ON PRIVATE POLE

- A. If New Services Engineering determines Underground Service is not practical, Tacoma Power Standards will allow a meter pole for Overhead Service to be installed not greater than 150 feet from the Tacoma Power pole.
- B. The property owner shall be responsible to permanently and legibly mark and maintain the permanent service address on the meter socket so that it is visible in accordance with the NEC.

13.3 METERING TRANSFORMER MINIMUM RATING REQUIREMENTS

When a single Service is metered through current transformers, and the minimum Demand as determined by Tacoma Power during a 12-month period is less than 10 percent of the current transformer nameplate rating, the Customer may be required, at his or her own expense, to replace the existing current transformers with smaller current transformers provided by Tacoma Power. Such a change shall not be required if the Customer can show, to Tacoma Power's satisfaction, that the Load will always exceed the 10 percent minimum during the next 12 months. For Single-phase Services with a Load of 320 amperes or less, Tacoma Power may require that the Customer provide and install a socket for a self-contained meter.

13.4 TOTALIZED AND INTERVAL DATA METERING

Totalized metering is defined as the totaling of consumption measured on multiple meters by feeding the output of the individual meters into one master meter which totals the consumption.

Where a Customer has multiple Services feeding buildings and equipment at one site, Tacoma Power may provide totalized metering when requested. Technical specifications shall be developed and approved by Tacoma Power's New Services Engineering and Meter/Relay groups.

For totalized and/or commercial/industrial interval data metering, the customer will be required to pay in advance for all special metering equipment, communications infrastructure and connections for remote data collection, labor and materials for installation, and any additional ongoing maintenance costs.

CUSTOMER SERVICE POLICY

13.5 PULSES

Upon request, Tacoma Power will provide Customers with pulses from the billing meter in accordance with current Tacoma Power Standards. The Customer's equipment for acquiring pulses will not be installed in the same enclosure with Tacoma Power's equipment. The Customer will be responsible for the security, protection and environmental needs of their equipment. The Customer shall reimburse Tacoma Power for all costs required to provide pulses.

13.6 METER TAMPERING AND POWER DIVERSION

Tacoma Power will require the Customer to pay costs incurred to investigate meter tampering, power diversion, or other improper action taken by the Customer or others. If Tacoma Power equipment is damaged as a result of meter tampering, power diversion, or other actions taken by the Customer or others, the Customer is presumed to be responsible for the damages, and unless there is clear evidence to the contrary, shall be held responsible for payment of all estimated power consumption and costs incurred to replace or repair the equipment as per RCW 80.28.240.

13.7 CUSTOMER-REQUESTED METER TEST

Upon Customer request, Tacoma Power will test the billing meter one time at no charge. Tacoma Power will assess a charge for all additional tests requested within two years of an earlier request. If the meter is found to be more than two percent inaccurate, all charges assessed for the most recent test will be refunded.

14.0 CUSTOMER OWNED GENERATION – UTILITY INTERCONNECTION

Customer owned generation is defined as generation owned and operated by the Customer that is connected directly to Tacoma Power's electrical system through Tacoma Power's metering.

- A. All emergency and legally required standby generation installations must comply with Chapter 7 of the NEC and must be inspected by Tacoma Power's Electrical Inspectors. New Services Engineering Office can be contacted for assistance.
- B. Customers may interconnect with Tacoma Power pursuant to Tacoma Power Standards and design requirements which must include approved Load transfer equipment. The facilities and operational requirements associated with interconnection to Tacoma Power's Transmission and Distribution system are governed by the following requirements:

CUSTOMER SERVICE POLICY

1. Tacoma Power's Technical Connection Requirements govern generators larger than 100 kW. Sales of electrical energy to Tacoma Power may be subject to successful negotiation of a contract with Tacoma Power subject to the approval of the contract by the Public Utility Board.
 2. Tacoma Power's Net Metering Requirements govern interconnection requirements that apply to any Customer-owned generation facility with a capacity less than 100 kW.
- C. Small generators intended solely as a back-up power supply must have an Electrical Inspection Department approved protection switch or panel to prevent power from feeding into Tacoma Power's Distribution system.
- D. Connecting Customer owned generation to network systems is limited by the Institute of Electrical and Electronics Engineers (IEEE) 1547.6. Tacoma Power's Central Business District Engineering must pre-approve all installations in the downtown area and at area hospitals.

15.0 PUBLIC AGENCY REQUESTED INSPECTIONS

Tacoma Power will require a property owner to pay all costs incurred for the inspection of electrical wiring of such owner's buildings or other structures when such inspection has been requested by applicable city, State and/or Federal authorities investigating suspected unlawful conditions or activity upon the owner's property and the inspection confirms electrical code violations. The cost assessed for the time spent inspecting, permit fees required to make repairs, and any penalty fees shall be assessed per TMC 2.04. Where Electrical Service has been disconnected, reconnection will require the purchase of a Tacoma Power electrical permit, upgrade of the installation in accordance with current Tacoma Power Standards, the Electrical Code of the City of Tacoma, the NEC, applicable city and State codes, and approval of all required inspections, completion of inspection hold requirements, and payment of required fees and charges.

CUSTOMER SERVICE POLICY

DEFINITIONS

For the purposes of these Policies, the words or phrases shall have the meaning set forth below:

Customer(s) – a person or entity legally responsible for payment of utility rates, charges, and fees pursuant to the TMC and/or applicable State law and includes, but is not necessarily limited to, any person or entity that uses or has contracted for electric Service from Tacoma Power and whether or not designated as a business partner in the business records of the Customer Services' Division.

Demand – the maximum average kilowatt power used by the Customer for a specific period of time during the billing period.

Distribution – that portion of an electrical system that delivers electric energy at less than 110 kV (nominal).

Dwelling Unit – a single unit, providing complete and independent living facilities for one or more persons, including permanent provisions for living, sleeping, cooking, and sanitation.

Electrical Code of the City of Tacoma – Chapter 2.04 of the Tacoma Municipal Code (TMC), entitled Electrical Code.

Electrical Services – electric power and energy available for use by the Customer.

Letter of Agreement – standard agreement executed primarily between developers and Tacoma Power outlining the responsibilities of each party, estimated costs, and the standards that electrical equipment and facilities must adhere to.

Primary Line Extension – extensions of Tacoma Power's Distribution system.

Load – any device that consumes power including, but not limited to motors, lights and/or heating equipment.

NEC – National Electrical Code as adopted per Chapter 2.04, TMC.

Policies – these Tacoma Power Customer Service Policies.

Public Utility Board – the Public Utility Board of the City of Tacoma.

Rate Schedules – Chapter 12.06 of the Tacoma Municipal Code (TMC) entitled Electric Energy – Rates and Regulations.

RCW – Revised Code of Washington

CUSTOMER SERVICE POLICY

DEFINITIONS

Service – by NEC definition, the Service comprises the conductors and equipment for delivering electric energy from the serving utility to the wiring system of the premises served.

Primary Service – Service with voltages greater than 600 volts.

Secondary Service – Service with voltages less than 600 volts.

Overhead Service – conductors from Tacoma Power's pole to the connection point with the Customer's wires at the Service mast.

Underground Service – cables and conduits from Tacoma Power's pole, transformer, or Secondary Service box to the source side of the meter socket lugs.

Single-phase Service – an alternating current supply system using one conductor. This type of service is usually used for residential Loads.

Three-phase Service – an alternating current supply system comprising three or more conductors. This type of Service usually feeds commercial and industrial Loads.

Tacoma Power Standards – The City of Tacoma, Department of Public Utilities, Light Division's Transmission and Distribution Construction Standards, which authorize the design for engineering and construction.

TMC – Tacoma Municipal Code – The Municipal Code of the City of Tacoma.

Technical Connection Requirements – requirements that apply to any generation facility with a capacity exceeding 100 kW and end-use or wholesale Customers taking Service at Transmission voltage.

Temporary Service – a short-term electrical service designed to provide power for construction or other short-term use. Short-term for the purpose of Temporary Service is a period of less than one year.

Transmission – that portion of an electrical system that delivers electric energy at voltages greater than 52.5 kV. For purposes of this document, Transmission voltage is generally considered to be 110 kV (nominal).

Vault – a room or enclosure where switchgear, cables, transformers, and other devices are installed for an electrical system.