CUSTOMER SERVICE POLICIES

TACOMA POWER
TACOMA PUBLIC UTILITIES

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CUSTOMER SERVICE POLICIES

TABLE OF CONTENTS

Section	Title	Page No.
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 ……	4
2.4	General Conditions ……	4
2.5	Limitations ……	6
3.0	Temporary Service ……	7
4.0	Short-Term Service Connections ……	7
5.0	Single-Family Residences, Mobile Homes and Duplexes ……....	7
6.0	Multi-Family, Commercial, and Industrial Services ……...	8
7.0	Residential Developments Primary Voltage System ……	9
8.0	Residential Developments by Local Improvement District ……..	10
9.0	Overhead-to-Underground Conversion by L.I.D ……	10
10.0	Prepaid Overhead-to-Underground Primary Line Conversion.	11
11.0	Mobile and Factory-Built Home Developments ……	11
12.0	Commercial and Industrial Primary-Metered Service ……...	11
13.0	Meters ……...	12
13.1	Sub-Metering ……...	13
13.2	Meter on Private Pole ……	14
13.3	Metering Transformer Minimum Rating Requirements ……	14
13.4	Totalized Metering ……..	14
13.5	Pulses ……...	14
13.6	Meter Tampering and Power Diversion ……..	15
13.7	Customer-Requested Meter Test ……	15
14.0	Customer Generation ……	15
15.0	Energy-Efficiency Standards for Buildings ……	16
16.0	Efficiency Standard for Buildings with Electric Space Heat ……	16
	Definitions ……	17

CUSTOMER SERVICE POLICIES

1.0 STATEMENT OF GENERAL POLICY

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

The 2003 revisions to these policies shall supersede and amend all previously adopted policies and shall become effective April 1, 2003. These policies are adopted pursuant to the authority of Tacoma Municipal Code Section 12.06.330.

If the policies conflict with Rate Schedules, the Electrical Code of the City of Tacoma, the Tacoma Municipal Code, or contract provisions, then the Rate Schedules, the Electrical Code of the City of Tacoma, the Tacoma Municipal Code, or contract provisions will 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 Customer Service Policies. 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	√	√	√	√	√	√
16.0	√	√	√	√	√	√

CUSTOMER SERVICE POLICIES

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 advised to contact Tacoma Power's 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 advised to contact the Tacoma Power Electrical Inspection Office prior to making any changes to their existing wiring or their existing load. For all non-emergency contact with the Tacoma Power, regular working hours are 8:00 a.m. to 5:00 p.m., Monday through Friday, excluding City holidays.

Most transmission and distribution construction standards that apply to customers, plus information on electrical service and permit requirements, can be found on the Tacoma Power Web site, www.tacomapower.com.

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 ANSI Standard C84.1.

C. The quality of power supplied by Tacoma Power is in accordance with IEEE Standard 446-1980, Section 3.10.3, Table 7, and ANSI Standard C84.1a.1982.

2.2 LARGE-LOAD REQUIREMENTS

A. The following requirements will apply to new or expanded existing single loads equal to or greater than 8 megawatts (MW).

   1. Connection to the electric 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. Exceptions to the transmission requirement might be granted, but only if Tacoma Power determines through the 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, criteria, or regulations governing safe and prudent electric utility practices.

2. Service for a new or existing single load of 8 MW or more will require negotiation of a power sales contract with Tacoma Power and approval of the power sales contract by the Public Utility Board.

B. New and existing loads less than 8 MW shall 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 13.8 kV distribution standards, codes, criteria, or regulations governing safe and prudent electric utility practices.

C. All customers taking service at transmission voltages 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 on the north, South 17th Street on the south, Interstate 705 on the east, and Fawcett Avenue on the west. The customer must contact Tacoma Power's New Services Engineering and Electrical Inspection offices regarding all new or modified service installations. The customer 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.

2.4 GENERAL CONDITIONS

A. Services

1. All 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.

2. The customer shall provide a service entrance that meets all Tacoma Power and all Electric Utility Service Equipment Requirements Committee (EUSERC)

requirements. At the customer's request, the Electrical Inspection Office will designate the service entrance building.

3. The customer shall pay Tacoma Power costs for the service prior to any construction by Tacoma Power.

4. In accordance with the National Electrical Code for services 600 volts and under, no more than one single-phase service and one three-phase service will be supplied to each building.

5. When Tacoma Power identifies a service as unsafe and discontinues electrical service, reconnection will require an electrical permit, upgrade of the service in accordance with current Tacoma Power standards, inspection, and payment of required 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 Tacoma Municipal Code. Failure to provide access could result in disconnection.

C. No wiring shall be installed until the Electrical Inspection Office issues a permit.

D. Customers must obtain written approval from the Electrical Inspection Office before doing any wiring changes or modifying the service panels. 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 or transmission lines is prohibited.

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 ordinances 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 a letter of agreement between Tacoma Power and the customer or developer, and Transmission & Distribution procedures.

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. 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, and will only be made if calculated amounts exceed $50.00 per customer.

G. Some equipment, particularly but not solely limited to motors, 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, or low voltage, or cause damage or improper operation of Tacoma Power or other customer 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 suspended until corrective action is taken.

2. The customer will be solely liable for any damages incurred by Tacoma Power 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 Electrical Construction Standards, provided on Tacoma Power's Web site.

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.

CUSTOMER SERVICE POLICIES

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 to 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 concurrence, service may be furnished from either an overhead or an underground primary system.

5.0 SINGLE-FAMILY RESIDENCES, MOBILE HOMES AND DUPLEXES

A. Underground Service

1. For underground secondary service, the customer will be required to furnish the trench, install conduit(s) and cable(s), and backfill the trench. The customer will also be required to furnish and install data conduit in accordance with Tacoma Power's standards. After underground secondary service has been installed and energized, Tacoma Power will own and maintain the secondary service up to the meter.

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: Tacoma Power will furnish, install, and maintain the overhead secondary service wire. 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. Customers will be responsible for trimming and removing trees and other vegetation away from the service wire on their property.

6.0 MULTI-FAMILY, COMMERCIAL, AND INDUSTRIAL SERVICES

A. The customer who requires an electrical distribution system shall sign a letter of agreement with Tacoma Power's New Services Engineering Office and pay the appropriate fees prior to construction.

B. Secondary Service

1. Underground

a. The customer will be required to furnish and install civil and electrical systems associated with secondary underground service and data conduits, in accordance with Tacoma Power's standards.

b. All secondary conductors shall be installed before the transformer is set in place. The customer shall pay for crew time for removing the transformer to accomplish pulling of 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 secondary service box or transformer to the customer's meter(s).

2. Overhead: Tacoma Power will furnish, install, and maintain the overhead service wire. The customer will be responsible to trim or remove trees and other vegetation away from the service wire on his/her property. Tacoma Power will not be 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.

C. Primary Voltage System (PVS)

1. All primary voltage system designs must be approved by an electrical engineer licensed in the State of Washington prior to submittal to Tacoma Power for plan review.

2. The customer shall install, own, and maintain transformer slab(s), vault(s), walk-in vault(s), and transformer guard posts in accordance with current Tacoma Power standards.

3. At the discretion of Tacoma Power, civil systems (trench, conduit, structures, etc.) 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 that Tacoma Power deems necessary. The 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 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.

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 fees prior to construction.

C. This policy will cover the installation of the electrical primary system and the secondary service to the lot corner closest to the transformer. Extending the secondary service run, when requested by the subdivider or property owner, shall be considered to be of special benefit to the property served, and fees shall be assessed in accordance with Tacoma Power policies.

CUSTOMER SERVICE 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 (RCW 35).

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 Tacoma Department of Public Works.

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.

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 underground existing overhead primary electrical distribution systems 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 either 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. 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 in accordance with all applicable Washington State laws.

E. Tacoma Power funds will provide 30 percent of the total cost of converting the existing overhead primary electrical distribution system to underground.

F. Any charges made against the L.I.D. 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.

G. Converting secondary electrical 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

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 neighborhood, collect all costs associated with converting the primary line from the residences, and pay Tacoma Power in advance of any engineering and construction scheduling.

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)

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, transformers, and connection to the load side of the metering current transformers, all in accordance with the NEC and the Tacoma Power Electrical Inspection Office requirements.

2. Tacoma Power-owned equipment: Tacoma Power may consent to furnish, install, own, and maintain primary metered equipment, including cables, simultaneous disconnect switch, transformers, and all connections at the metering current transformers and power transformer(s), all in accordance with Tacoma Power's design and standards. Electric rates and charges will take into account Tacoma Power's additional cost involved in this alternative.

B. Customers owning primary voltage equipment may be allowed to turn some or all of the equipment over to Tacoma Power to own, operate, and maintain. Upon request by the customer and on a case-by-case basis, Tacoma Power will review customer-owned systems. Acceptance of such systems will be at Tacoma Power's sole discretion, and will depend upon the system and equipment meeting current Tacoma Power design standards and a determination that other customers will be economically unharmed by such action. After turning primary voltage equipment over to Tacoma Power, customers would not be eligible for the rate discount for ownership and maintenance of primary voltage equipment.

C. Because of fire-fighter safety concerns about having two or more sources of power to a building, Tacoma Power will not provide additional service to any building served with a primary-metered service. Multiple-metered services may be provided to a site that has detached buildings or structures.

13.0 METERS

A. All metering shall comply with Tacoma Power metering 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 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 point of contact with customer-provided wires.

C. For multiple-metered locations, meter sockets must be permanently and legibly marked with the permanent 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 customers. The property owner will be responsible for any insufficiency of electric revenue recovery from cross-metered customers plus any reasonable collection costs incurred by Tacoma Power.

Tacoma Power will notify the property owner of the minimum-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 Power standards and the NEC at his/her expense. The customer must obtain an electrical wiring permit from the 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 must use the space occupied by the meter or blocks a clear path to the meter, or if the meter is subject to damage because of its location, the customer shall, at his/her own expense, provide a new and suitable meter location and make the necessary wiring changes.

13.1 SUB-METERING

A. Additional 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 National Electrical Code 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 the power at the billing meter(s). The nominal administrative fee shall not exceed 10 percent of the monthly electric utility services amount for each tenant, or $5.00 per month, whichever is less. Revenue so collected by the customer from his/her tenants will not be considered in violation of Tacoma Municipal Code, Section 12.06.120, "Resale of Electric Energy Prohibited."

B. If a sub-metering site is found to be causing damages 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. The installation shall be in accordance with current Tacoma Power standards.

B. The property owner shall be responsible for affixing and maintaining the service address on the meter socket in a conspicuous and legible manner 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 20 percent of the current transformer nameplate rating, the customer may be required, at his/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 20 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 METERING

Where a customer has multiple services feeding buildings and equipment at one site, Tacoma Power provides totalized metering when requested. Meter totalization will require that the output of the meters at the current metering points be fed into one totalizing meter. Technical specifications shall be developed and approved by Tacoma Power's New Energy Services and Meter/Relay groups. The customer will be required to pay for all special metering equipment, Tacoma Power labor and materials for installation, and additional maintenance if any.

13.5 PULSES

Upon request, Tacoma Power will provide customers with pulses from the billing meter in accordance with the current Tacoma Power Transmission & Distribution Standard C-MR-0010 (or its successor). The customer's equipment for acquiring pulses will not be installed in the same enclosure with Tacoma Power's equipment. The customer shall reimburse Tacoma Power for all work and costs necessary 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 all 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 2 percent inaccurate, all charges assessed for the most recent test will be refunded.

14.0 CUSTOMER GENERATION

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. Contact the New Services Engineering Office for assistance.

B. Customers may interconnect with Tacoma Power pursuant to Tacoma Power's standards and requirements. The facilities and operational requirements associated with interconnection to the Tacoma Power transmission and distribution systems are governed by the following requirements:

   1. Tacoma Power's Technical Connection Requirements govern generators larger than 25 kW. Sales of electrical energy to Tacoma Power may be subject to successful negotiation of a contract with Tacoma Power and approval of the contract by the Public Utility Board.

   2. Tacoma Power's Net Metering Requirements govern generators under 25 kW.

C. Small generators intended solely as a back-up power supply must have an approved protection switch or panel to prevent power from feeding into the Tacoma Power distribution system.

15.0 ENERGY-EFFICIENCY STANDARDS FOR BUILDINGS

A. New buildings and structures or portions of them, and additions, alterations, or repairs to existing buildings that provide facilities or shelter for public assembly, educational, mercantile, institutional, storage, residential, factory, and industrial occupancies, shall comply with the City of Tacoma's Energy Efficiency Standards for New Buildings, codified in the Tacoma Municipal Code Section 12.06.040.

The energy-efficiency standards state minimum requirements for building exterior envelopes, selection of heating, ventilating, and air conditioning (HVAC) service, water heating, electrical distribution, and illuminating systems and equipment.

B. Prior to construction, the customer or developer shall submit plans and specifications to the Energy Code group in the Electrical Inspection Office for all building sites located within Tacoma Power's service area outside the City of Tacoma.

C. Construction that requires a permit shall be subject to inspection by Tacoma Power's Electrical Inspection Office. No work shall be done on any part of the building or structure beyond the point indicated in each successive inspection without first obtaining the written approval from the Energy Code Inspector.

D. Tacoma Power's Energy Code Inspector shall provide a final inspection and approval for buildings when they are completed and ready for occupancy.

16.0 EFFICIENCY STANDARD FOR BUILDINGS WITH ELECTRIC SPACE HEAT

Before Tacoma Power will connect a new or upgraded electric service for electric space heat in any residential building for which a building permit was originally granted on or before September 30, 1984, the customer shall:

A. Make any changes or installations necessary to comply with the Energy Efficiency Standards for Conversion to Electric Space Heating and

B. Schedule and permit an inspection of the premises by an Energy Code Inspector.

Before Tacoma Power will connect a new or upgraded electric service for electric space heat in any building that received a building permit on or after October 1, 1984, it shall comply with the City of Tacoma's Energy Efficiency Standards for New Buildings as codified in the Tacoma Municipal Code Section 12.06.040.

CUSTOMER SERVICE POLICIES

DEFINITIONS

For purposes of this policy, the following words or phrases shall have the meaning set forth below:

approved — acceptable to Tacoma Power.

ANSI — American National Standards Institute.

circuit — a conductor or system of conductors through which an electric current flows.

City — the City of Tacoma.

civil system — consists of trenches, vaults, conduits, and structures (slabs, junction boxes, guard posts, metering apparatus, etc.).

conduit — a certified, testing-laboratory-approved conduit or tube with a smooth interior surface, such as PVC, Schedule 40 or 80, gray or black fiberglass, or mold steel, to permit easy pulling-in of the electrical conductors.

Council — the City Council of the City of Tacoma.

current transformer — a transformer used to measure or control circuits.

customer — any person or entity that uses or has contracted for electric service from Tacoma Power.

customer generation — generation owned and operated by the customer that is connected directly to Tacoma Power's system through the utility's metering.

Customer Service Policies — the latest revision of Tacoma Power's Customer Service Policies.

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).

Electric Utility Service Equipment Requirements Committee (EUSERC) — an association of 80 utilities in 12 western states that promotes uniform electric service requirements and the standardization of metering technology and installations.

CUSTOMER SERVICE POLICIES

DEFINITIONS

Electrical Code Of The City Of Tacoma — Chapter 2.04 of the Tacoma Municipal Code, entitled Electrical Code.

Electrical Inspector, Energy Code Inspector — a representative of Tacoma Power who has been authorized to inspect installations on its behalf.

electrical service — electric power and energy available for use by the customer.

Energy- Efficiency Standards for Buildings — the Washington State Energy Code promulgated by the Washington State Building Code Council under authority of Chapter 19.27A RCW, adopted by City Ordinance No. 26795 and codified in City Code Section 12.06.040.

Energy- Efficiency Standards for Conversion to Electric Space Heating — the Tacoma Energy Code, for purposes of these policies, shall consist of the Washington State Energy Code promulgated by the Washington State Building Code Council under authority of Chapter 19.27A RCW, and the 1983 Northwest Conservation and Electrical Power Plan, Appendix L, adopted by City Ordinance No. 26795 and codified in City Code Section 12.06.040.

hertz — a measurement of frequency based on the number of cycles made in a second.

IEEE —Institute of Electrical and Electronics Engineers.

kilovolt ampere (KVA) — 1,000 volt amperes.

kilowatt (kW) — 1,000 watts.

letter of agreement— standard agreement executed primarily between developers and Tacoma Power outlining the responsibilities of each parties, estimated costs, and the standards to that equipment and facilities must meet.

line extensions — extensions of Tacoma Power's electrical system.

load — any device that consumes power, such as motors, lights or heating equipment.

Local Improvement District (L.I.D.) — a project initiated by property owners within a specific geographic area to accomplish a specific improvement project in cooperation with Tacoma Power.

CUSTOMER SERVICE POLICIES

DEFINITIONS

megawatt (MW) — a unit of power equal to 1,000,000 watts.

meter socket — a receptacle for installing an electric meter.

NEC — National Electrical Code.

Net Metering Requirements — interconnection requirements that apply to any generation facility with a capacity less than 25 kW.

primary service — see services.

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

Rate Schedules — Chapter 12.06 of the Tacoma Municipal Code, entitled Electric Energy – Rates and Regulations.

RCW — Revised Code of Washington.

service — by NEC definition, the service comprises the conductors and equipment for delivering energy from the electricity supply system 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.

CUSTOMER SERVICE POLICIES

DEFINITIONS

Standards, Tacoma Power — authorized design for engineering and construction.

sub-metering — metering facilities on the load side of Tacoma Power's billing meter(s), used for energy monitoring purposes only.

Technical Connection Requirements — requirements that apply to any generation facility with a capacity exceeding 25 kW, and end-use or wholesale customers taking service at transmission voltage.

three-phase service — see service.

totalized metering — the totaling of consumption measured on multiple meters, by feeding the output of the individual meters into one master meter which totals the consumption.

transformer — a device that isolates, raises, or lowers voltage.

transformer termination — connection of the transformer to primary or secondary circuits.

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.

volt ampere (VA) — the basic unit of apparent power (comprising both real and reactive power). The volt-amperes of an electric circuit are the mathematical product of the volts and amperes of the circuit.

watt — the electrical unit of power or rate of doing work. The rate of energy transfer equivalent to one ampere flowing under a pressure of one volt at unity power factor.

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