



SERVICE INSTALLATIONS		
DPP NUMBER	DPP 500 P III-417	
EFFECTIVE DATE	04/20/2022	SUPERSEDES 10/03/2019
APPROVED BY	<i>D. Mary Smith</i>	

1.0 PURPOSE

To establish policy for charging customers for the costs of installation of new, additional, modified or temporary electric service, service removals, relocations and other distribution system modifications that may be necessitated by development, and customer-requested engineering, design work, and field services.

2.0 POLICY

Installation charges shall recover all labor and upfront material costs incurred by the Department while performing work to install, modify, or remove customer connections.

2.1 **Estimates.** Estimates are provided on request, and without upfront charge. To be honored, estimates must be accepted and paid within 120 days, and the Department's work must commence within one year, without scope changes. Any engineering design time beyond what is required to prepare a high-level simple cost estimate (typically 8 hours of design time or less) shall be billed to the customer.

2.2 **Temporary Service Installations.** Temporary services are intended to provide delivery from the Department's distribution system to the point of termination at the customer's equipment energized by the Department on a temporary basis. Temporary services may be single or three-phase and are most commonly used during construction of a building.

Temporary service installations are billed separately from permanent service installations. However, the cost for material installed for a temporary service that is used in the permanent service will be excluded from the installation charge or credited against the permanent service installation charge.

Temporary services should be removed no later than one year from date of installation. Extensions may be granted with Department approval.

Temporary service electrical usage shall be billed at Small General Service rates.

2.3 **Permanent Service Installations.** Permanent services provide energy delivery from the Department's distribution system to the point of termination at the customer's equipment energized by the Department on a permanent basis. Installation charges for permanent services should recoup all labor and material costs incurred. In addition, an Amp Fee will also be assessed on all new and modified permanent services.

2.3.1 *Amp Fee.* In addition to charges for labor and material costs, all permanent services shall be charged an Amp Fee (see Table 1) that reflects the amperage of new capacity added to the distribution system. Amp Fees will be identified and listed separately from other installation charges and are not included in time and materials threshold calculations.

2.4 **Installation Charges.** The following charging policies apply to both temporary and permanent installations. Cost thresholds are inclusive of all estimated charges.

2.4.1 *Fixed Charges.* Installation of services where the total cost is estimated to be **less than or equal to** \$50,000 (Looped Radial)/\$100,000 (Network) are charged fixed costs.

Charges are based on all labor and material costs incurred for typical segments of work that would be included in the installation services. Cost assumptions are based on data maintained in the Department's Work and Asset Management System (WAMS) and are typically updated annually, or in response to material changes in costs. WAMS is the Department's system of record for all labor and material costs for electric services.

For fixed charge billings, installation charges must be paid in full before any installation work begins, and there is no final billing or refund.

2.4.2 *Time and Materials Installations.* Installations totaling more than \$50,000 (Looped Radial)/\$100,000 (Network) are billed based on actual time and material cost. An advance payment of 20% of the estimate is required before any installation work begins. All fees (including 100% of the estimate) must be paid before service can be approved for connection and energized. A final bill made after the job is completed will adjust for actual time and material cost. If the final bill is not yet available, a preliminary billing (identified clearly as such) may be provided on request.

Final Bills will be revised only in the event of a computational error, or discovery of unbilled additional work outside the scope of the original estimate. If the bill revision totals \$10,000 or more, the Department will immediately notify the customer in writing that a bill revision is forthcoming. Revisions shall only be made within 12 months of issuance of the final bill.

2.4.3 *Payment Arrangements.* In general, payment is required as described in §2.4. Customers may make a written request to the proper level of authority for approval of payment arrangements for installation charges that differ from those described.

2.5 **Additional Types of Work/Service.** The cost of all work performed by the Department specifically arising from customer request should be recouped through upfront charges. Incremental chargeable work includes, but is not limited to, establishing easements, meter enhancements, poles, line extensions, and special connectors. Tables 2-10 describe rates and charges for typical billable work. The following policies pertain to various types of chargeable work, which may be applied to fixed cost or time and materials billings.

2.5.1 *Make Permanent Work.* Rewired services provided with temporary connections by non-Department personnel shall require permanent connection by the Department. The Department may add the connection charges to the customer's billing account if the

customer commissioned the work. In this situation, work may precede the payment of installation charges.

- 2.5.2 *Daily Trip Charge.* The Department shall charge for every trip that is required. There may be more than one trip charge if a crew arrives on site and the installation is not ready as scheduled or does not meet the requirements and the crew has to come back. If the customer makes a specific request for an additional trip to complete service work, the customer will be charged for another trip charge.
- 2.5.3 *Safety Standby.* The Department shall provide safety standby for the contractor while conduit entry is being made into and while conductors are being pulled into energized Department facilities. Standby service charges will be based on the hourly rates in Table 9.
- 2.5.4 *Inspection/Review.* The Department shall provide inspection and review service for contractor-installed equipment and material between the customer's service connection point and the Department's distribution system to assure contractor compliance with Department specifications, standards, and requirements for service. All such inspections and/or reviews shall be charged based on the hourly rates in Table 9.
- 2.5.5 *Space Checks.* Space checks to verify socket to unit panel wiring may be performed at customer request or by Department requirement. Space checks are required for any new multi-unit construction, rewired multi-unit buildings, and may be required following address changes for multi-unit buildings. The costs associated with correcting abnormalities stemming from errors on the part the Department will be borne by the Department.
- 2.5.6 *Line Extensions.* Line extensions include requests for the extension of primary conductors or pole spans line extensions to serve a three-phase load in an area served by single-phase lines. The cost of line extensions is generally charged to the requestor. However, the Department may determine that a requested line extension serves a general need for future growth, in which case costs may be borne by the Department.

Line extensions must be located within established public right-of-way or private property for which the Department has a permanent easement. Customer-owned three-phase line extensions are prohibited.

For underground line extensions, the Department shall furnish and install the necessary conduit system required for the installation of an underground service crossing a street or alley, unless it is installed by a customer's private contractor. Costs required to construct a street crossing include labor and unsalvageable materials, as well as the cost of any construction permits, inspection fees, all backfill, and other restoration costs.

- 2.5.7 *Service Poles and Anchors.* Service poles in the rights-of-way or poles on private property that serve more than one customer are installed and maintained at Department cost. Other poles, such as poles to supply service to mobile homes, will be considered the responsibility of the requesting customer, for both installation and ongoing maintenance.

Service poles and anchors will be placed in accordance with the Requirements for Electric Service Connection. If a customer prefers a pole location with a more expensive installation cost than the least cost alternative, the customer is responsible for all incremental cost.

- 2.5.8 *Pole and line relocations.* Pole and line relocations necessitated by a new or modified service or any type of development activity shall be paid for by the requesting party. The requesting party will also be responsible for communicating with and fulfilling the requirements of any other parties (e.g. telecom utilities) impacted by the relocation. The Department may waive some or all of the portion of the cost requirement if poles block a normal single access (i.e. driveway 20' or less in width) to an existing residence or are found to be in poor condition and needing replacement. Any additional expenses incurred over and above the direct pole replacement cost shall be billed to the requestor.
- 2.6 **Permissible Offsets to Charges.** Construction of utility infrastructure by the customer is allowed under some circumstances. If the overall cost of the project is reduced, contributed work or assets are an allowable offset to charges. (e.g. the customer contributes a vault in a building and easement in lieu of building a vault under the road.) All such agreements are at the discretion of the Department and must be agreed to in advance and documented in an addendum to the service request.
- 2.7 **Contractor Installed Services.** May be allowed at the discretion of the Department. Final connections to the distribution system energizing the customer's service are made solely by the Department, without exception.
- 2.8 **No Standby Service.** Standby or alternate service shall not be installed or provided to customers unless there is a demonstratable public need for such backup service. The Department shall be the sole determinant of whether a request for standby service qualifies as a public benefit. Contracts for standby service that are already in effect will continue to be honored.
- 2.9 **Taxes.** Fees do not include taxes in the following tables. Taxes incurred by the utility in the performance of the service connections and the recovery for these charges will be added as an Administrative Charge to the final billing for the service connection. Similar to the Amp fee in Section 2.3.1, the Administrative Charge is excluded from time and material calculation thresholds.

Table 1: Amp Fee

Voltage	\$/Amp	Amp Credit
120/240 Single-Phase	\$4.39	200
120/208 Single-Phase	\$3.81	231
240/480 Single-Phase	\$8.78	100
277/480 Single-Phase	\$8.78	100
208/120 Three-Phase	\$6.30	133
240/120 Three-Phase (Open Delta)	\$7.27	115
480/240 Three-Phase (Open Delta)	\$14.55	58
480/277 Three-Phase	\$14.55	58
4,160/2,400 Three-Phase	\$126.09	7
13.8k/7,970 Three-Phase	\$418.29	2
26k/15,242 Three-Phase	\$788.08	1

Examples to illustrate the Amp Fee computation for various service types:

1) New 200A service at 120/240V Single-Phase:

Amp Fee = \$4.39/Amp * (200 Amps - 200 Amp Credit) = \$0

2) New building with two 3000A and one 400A service at 208/120V Three-Phase:

Amp Fee = \$6.30/Amp * (6400 Amps - 133 Amp Credit) = \$39,482.10

3) Existing service rewired from 4000A to 5000A at 480/277V Three-Phase:

Requested amps: 5000 - 4000 = 1000A

Amp Fee = \$14.55/Amp * (1000 Amps - 58 Amp credit) = \$13,706.10

4) Existing service rewired with no increase service size (e.g. 600A to 600A)

Amp Fee = \$0.

Note: Amp Fee is separate and not included in the \$50,000 (Looped Radial) and \$100,000 (Network) time and material threshold calculations.

Table 2: Standard Installation Charges for Temporary Services

	Overhead Service	Underground Service
Residential and Non-residential	\$750	\$1,527

Table 3: Standard Installation Charges for Overhead Service

Single - Phase				
Conductor Size	#2 AL TP	1/0 AL TP	4/0 AL TP	(2) 4/0 AL TP
Conductor Installation (\$/ft)	\$3.88	\$4.52	\$8.64	\$17.29
Hardware Installation	\$41	\$41	\$137	\$273
Each Bridle	\$562	\$562	\$562	\$562
Three-Phase				
Conductor Size	#2 AL QP	1/0 AL QP	4/0 AL QP	(2) 4/0 AL QP
Conductor Installation (\$/ft)	\$4.54	\$5.18	\$9.40	\$18.80
Hardware Installation	\$41	\$41	\$163	\$326
Each Bridle	\$562	\$562	\$562	\$562
Special Connectors				
	Single-Phase		Three-Phase	
	3-4 pos	\$985	4-4 pos	\$1,313
	3-6 pos	\$1,779	4-6 pos	\$2,423
Metering - Single-Phase			Metering - Three-Phase	
	Self-Contained Meter	\$35	Self-Contained Meter	\$422
	Install < 480V CT	\$70	Install < 800A CT	\$562
	Install ≥ 480V CT	\$148	Install ≥ 800A CT	\$843
Additional Charges				
Engineering				\$2,506
Service Assessment				\$748
Install Keybox: Knox				\$1,160

Table 4: Standard Installation Charges for Looped Radial Underground Service

Single-Phase					
Conductor Size	4/0 AL TX	350 AL TX	500 AL TX	(2) 350 AL TX	(2) 500 AL TX
Conductor Installation (\$/ft)	\$8.67	\$10.09	\$11.74	\$20.18	\$23.47
Connections at Pole	\$113	\$182	\$203	\$365	\$406
Connections at Vault/Handhole	\$815	\$815	\$815	\$1,630	\$1,630
Connections at Termination Point	\$815	\$815	\$815	\$1,630	\$1,630
Three-Phase					
Conductor Size	4/0 AL QX	350 KCMIL AL QX	500 KCMIL AL QX	(2) 350 KCMIL AL QX	(2) 500 KCMIL AL QX
Conductor Installation (\$/ft)	\$9.49	\$11.27	\$13.45	\$22.54	\$26.90
Connections at Pole	\$113	\$189	\$209	\$378	\$419
Connections at Vault/Handhole	\$972	\$972	\$972	\$1,945	\$1,945
Connections at Termination Point	\$972	\$972	\$972	\$1,945	\$1,945
Special Connectors					
	Single-Phase		Three-Phase		
	3-3 pos	\$923	4-3 pos	\$1,126	
	3-4 pos	\$1,231	4-4 pos	\$1,641	
	3-6 pos	\$1,924	4-6 pos	\$2,618	
Extend Conduit Riser on Pole					
		Pole Riser Extension	Extension with Weatherhead		
	3 Inch Conduit	\$411	\$449		
	4 Inch Conduit	\$517	\$695		
	Metering - Single-Phase		Metering - Three-Phase		
	Self-Contained Meter	\$35	Self-Contained Meter	\$422	
	Install ≤ 480V CT	\$70	Install ≤ 800A CT	\$562	
	Install ≥ 480V CT	\$148	Install ≥ 800A CT	\$843	
Additional Charges					
		Engineering	\$2,506		
		Service Assessment	\$748		
		Install Keybox: Knox	\$1,160		

Table 5: Easement Charges

Recording Fee	\$207
Real Estate Agent	\$676

Table 6: Daily Trip Charges*

Overhead and Underground Services	
Line Service Crew	\$595
Overhead Pole Crew	\$1,148
Overhead Line Crew	\$1,153
Underground Crew	\$1,183
Meter Services	
Meter Crew (2 Person)	\$558
Meter Crew (1 Person)	\$264
Electrical Reviewer and Inspection Services	
Electrical Reviewer (1 Person)	\$160
Crew Coordinator (1 Person)	\$169
Civil Inspector (1 Person)	\$180

*Based on travel within service area.

Table 7: Space Check Charges

1-4 Meters	\$223
5-8 Meters	\$297
9-20 Meters	\$742
21-100 Meters	\$1,265
Every 100 Meters	\$3,936

Table 8: Charges for Customer-Requested Meter Enhancements

Add KYZ Pulse	All other services	Live service over 300V
Pulse added to one meter	\$692	\$973
Each additional meter	\$581	\$792
Add load profile to existing meter	All other services	Live service over 300V
First Meter	\$506	\$787
Each additional meter	\$396	\$536
Add modem to existing meter with load profile	All other services	Live service over 300V
First Meter	\$1,016	\$1,297
Each additional meter	\$875	\$1,016
Add Virtual Totalizer		
Set up new virtual totalizer with 2 meters totalized		\$281
Each additional modem meter added to a new or existing totalizer		\$70

Table 9: Standard Hourly Rates

Hourly rate	Normal	Overtime
Electrical Reviewer	\$160	\$175
Crew Coordinator	\$169	\$181
Civil Inspector	\$180	\$214

Table 10: Standard Pole Rates

Pole Delivery	\$458
Pole Install Truckset	\$2,270
Pole Install Handset	\$4,407
Anchor	\$638
Guy Wire	\$647
Pipe Brace Guy Wire	\$805

3.0 DEFINITIONS

- 3.1 **Daily Trip Charge.** The trip charge includes the labor duration for average service territory travel time, safety tailboard, material handling/loading, and site setup.
- 3.2 **Enlarged/Expanded Service.** An increase in the electrical load-carrying capacity of a customer's service. At premises having an existing service that exceeds the ampacity limits specified in the "Requirements for Electric Service Connection" manual, load additions that necessitate additional service installation work by the Department are defined as enlarged/expanded services.
- 3.3 **Looped Radial.** The Department's distribution system outside of the network areas that has a single source of supply. Also referred to as "Non-Network".
- 3.4 **Network.** Distribution service from multiple sources of supply operating in parallel, which offers a high degree of reliability. Network service in Seattle can be found in Downtown, South Lake Union, University District and First Hill neighborhoods.
- 3.5 **Point of Termination.** Where the Department's system ends and connects to the electrical system owned by the customer.
- 3.6 **Service.** Energy delivery from the Department's distribution system to the point of termination at the customer's equipment.
- 3.7 **Service Removal.** The removal of all Department-owned electric service equipment including electrical conductors and meters. In the case of very large services, removals may include transformers and transformer meters.
- 3.8 **Service Size (or Service Rating).** The greater of the maximum nameplate ampere rating of the main service disconnect and the main service panel. In the absence of a single main service disconnect, the service rating is defined as the maximum nameplate rating of the main service bus or the rating of the main busing in the service entrance panel, whichever applies. In buildings where multiple services are connected from one service drop or lateral, the service rating for the building shall be the sum of the individual services.

4.0 REFERENCES

- 4.1 Seattle Municipal Code Section 21.49 and as the same may be amended or superseded.
- 4.2 Seattle City Light "Requirements for Electric Service Connection" Manual.
- 4.3 City of Seattle Municipal Code Chapter 3.02, the Administrative Code.

APPENDIX: Posted online at: <http://www.seattle.gov/light/policies/> and at: [Departmental Policies & Procedures - Volume III - Standard \(sharepoint.com\)](#)

REVISION HISTORY:

DATE	CHANGES MADE	REVISED BY
04/20/2022	Revised Department Policy and Procedure to update the labor rates and material cost increases.	Author: Kirsty Grainger, Carsten Croff, Gina Baxter, Mike Simmonds, Eivind Perander, Curtis Lu Coordinator: Kim Kinney

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Final Audit Report

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