

ELECTRONICALLY FILED WITH RCA

March 25, 2024

Regulatory Commission of Alaska 701 W. 8th Avenue, Suite 300 Anchorage, AK 99501

Subject:

Tariff Advice No. 431-121; Chugach Electric Association, Inc. Distribution

Service Charges and Fees

Commissioners:

The tariff filing described below is hereby transmitted to you for filing in compliance with the Alaska Public Utilities Regulatory Act and Sections 3 AAC 48.200 - 3 AAC 48.420 of the Alaska Administrative Code. The purpose of this filing is to update Chugach Electric Association, Inc.'s (Chugach) Distribution Service fees in its Schedule of Charges and Fees. Chugach is requesting that the proposed charges and fees contained in this filing become effective June 1, 2024.

TARIFF SHEE	ET NUMBER	CANCELS SH	EET NUMBER	SCHEDULE OR
<u>ORIGINAL</u>	REVISED	<u>ORIGINAL</u>	REVISED	RULE NUMBER
62.1	2 nd Revision	62.1	1st Revision	Schedule of
62.2	2 nd Revision	62.2	1st Revision	Charges and Fees

This filing complies with Commission Letter Order Nos. L0100417 and L0900194 requiring annual updates to rates for special service installations reflecting third party contributions for use of Chugach's trench in residential underground secondary service installations that exceed Chugach's standard allowance. The proposed updates contained herein reflect changes in the underlying costs for the provision of distribution services. If approved, the proposed rate changes would increase annual retail revenue by \$27,335, or approximately 6.24 percent on Chugach's distribution services revenue of approximately \$0.5 million.

This filing is not for a new service, will not result in the termination of an existing service, conflict with any other schedule or rate contained in Chugach's operating tariff, or in any other way adversely impact customers or the public. Chugach provides electric service to approximately 93,000 retail members (113,000 meters). Chugach is projecting annual revenues of approximately \$357.1 million for calendar-year 2024.

¹ The service area under Certificate of Public Convenience and Necessity (CPCN) No. 121 is designated as the North District and the service area under CPCN No. 8 is designated as the South District. The tariff sheets for the South District are submitted to the Regulatory Commission of Alaska (Commission) in Tariff Advice No. 553-8. The proposed distribution service fees are identical in both filings.

Summary

In this filing, Chugach is proposing to update the charges and fees for distribution services. These updates are based on current cost levels, and calculated using a fully allocated cost methodology which includes applicable labor, equipment, material, and overhead costs. Overall, the rates are increasing approximately 2 percent, which is primarily driven by higher labor and material costs.

Distribution Services Fees

The updates to the charges and fees for raising or lowering facilities, special service installations, and non-utility generation application fees are explained further below.

Raising or Lowering of Facilities

Exhibit 2 provides a summary of the updated costs associated with raising and lowering secondary pedestals, single phase padmounted transformers, and metal streetlights. Current charges are \$1,075 for secondary pedestals, \$2,575 for single phase padmounted transformers, and \$1,290 for metal streetlights. Chugach is proposing that these charges be decreased by approximately 0.3 percent.

In recognition of cost variances for certain activities, charges relating to the raising or lowering of three phase transformers, single and three phase junction cabinets, switching cabinets, and primary and secondary cable continue to be priced at cost on the basis of individual cost estimates on a per job basis.

Special Service Installations

Excluding the initial inspection, the charge for residential secondary service inspections will remain at \$190 per inspection. No change is proposed.

For secondary service installations exceeding the 100-foot standard allowance, Chugach is proposing that the per-foot non-winter installation be increased from \$14.90 to \$15.90 for single use trench and from \$13.70 to \$14.60 for two-party installations due to higher material and labor costs. Payments received from other utilities for use of Chugach trenches are based on negotiated contractual agreements between Chugach and Alaska Communications Systems Holdings, Inc. (ACS), General Communication, Inc. (GCI) and TelAlaska. Attached is the current agreement between Chugach and GCI (Attachment I). The joint trench contribution amounts are the same for all agreements. The current joint trench contributions are \$1.26 per foot for two-party installations and \$1.50 per foot for three-party installations (see page 4 of 5 of Attachment I).

Non-Utility Generation Interconnection Application Fee

Chugach is proposing to increase the Non-Utility Generation Interconnection fee to \$225 per application, an increase of 2.3%, due to increases in labor costs. Exhibit 1 includes a summary description of the Non-Utility Generation Interconnection Application process.

Description of Tariff Sheet Changes

Tariff Sheet Nos. 62.1 and 62.2: Contain the proposed charges and fees for distribution and line extension services including the charges for raising or lowering special service installations, and the Application Fee for Non-Utility Generation Interconnection.

Please contact David Caye, Economic/Financial Regulatory Analyst at (907) 762-4842 or David Caye@chugachelectric.com if additional information is needed.

Sincerely,

CHUGACH ELECTRIC ASSOCIATION, INC.

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Attachments

cc: Kat Sorenson, Seward City Manager, City of Seward (electronically)

RCA No. 8



27th Revision

Sheet No. 77

Canceling

26th Revision

Sheet No.

77

Chugach Electric Association, Inc.

SCHEDULE OF CHARGES AND FEES (Continued)

Distribution Services Fees

A.	Raising or Lowering of Facilities	
1.	Secondary Pedestal	R
2.	Single Phase Padmounted Transformer	R
3.	Three Phase Padmounted Transformer	
4.	Single Phase Junction Cabinet	
5.	Three Phase Junction Cabinet	
6.	Switching Cabinet	
7.	Metal Street Light	R
8.	Primary and Secondary Cable	
В.	Special Service Installations	
1.	Secondary Service Inspections (New or Upgrade Service)	
	a) Initial Inspection	
	b) Per Inspection Charge, Other Than Initial Inspection	

¹ Refer to Section 8.14, "Modification to Existing Facilities".

RCA No. 8

21st Revision

Sheet No. 77.1

Sheet No.

Canceling

20th Revision

77.1



Chugach Electric Association, Inc.

SCHEDULE OF CHARGES AND FEES (Continued)

B. Special Service Installations (Continued)

2. New Underground Residential Service, Over 100 Ft. (applies to direct burial installation only)

	Single Use Trench - Chugach Only	
	a) Installation Without Temporary Corflo Placement\$15.90/Ft.	I
	b) Installation Requiring Temporary Corflo Placement\$26.50/Ft.	I
	Joint Use Trench – Two Party Installations ¹	
		т
	c) Installation Without Temporary Corflo Placement	I
	d) Installation Requiring Temporary Corflo Placement\$25.30/Ft.	I
	Joint Use Trench – Three Party Installations ¹	
	e) Installation Without Temporary Corflo Placement\$14.40/Ft.	I
	f) Installation Requiring Temporary Corflo Placement\$25.00/Ft.	I
	- /	
3.	New Overhead Residential Service, Over 100 Ft\$5.60/Ft.	I
4.	Residential Service Conversion, Overhead to Underground ²	
	(applies to direct burial installation only)	
	a) Conductor and Trenching\$15.90/Ft.	I
	b) Service Disconnect / Reconnect	
	c) Secondary Riser, if Required \$1,760.00	I
5.	Relocate Residential Overhead Service Attachment ²	
6.	Residential Service Pole	I
7.	Guard Post for Padmounted Transformer or Switch Cabinet	I
8.	Down Guy Relocation, per Anchor	I
C.	Non Hility Congretion Interconnection Application For (Class A. P. D.)	
C.	Non-Utility Generation Interconnection Application Fee (Class A & B)	
1.	Non-Utility Generation Interconnection Application Fee, per Application	I
-•	,	-

Available only when contributions are made from joint use party.

If a residential service is being upgraded in conjunction with the service work and must be replaced, the service replacement cost will be discounted at 50% but the discount shall not exceed \$1,550 (the value of the single-family residential distribution line extension credit).

TABLE OF CONTENTS

Description	Reference	No. Pages
Description of Distribution Service Fees	Exhibit 1	4
Proposed Changes to Tariff Fees & Charges	Exhibit 2	4
Revenue Impact with Changes to Tariff Fees & Charges	Exhibit 3	4
Summary of Labor, Equipment and Material Costs	Exhibit 4	4
Calculation of Average Hourly Equipment and Labor Costs for Operations Service Crews for Non-Utility Generation Interconnection Application	Exhibit 5 Exhibit 6	1 1
Letter of Agreement for Joint Trench Cost Sharing	Attachment I	5

EXHIBIT 1

Chugach Electric Association, Inc. Anchorage, Alaska

Schedule of Fees Description of Distribution Service Fees

A. Raising or Lowering of Facilities

1) Secondary Pedestal

Secondary pedestals may need to be raised or lowered due to changes in grade or improper soil conditions. The operation requires the physical raising or lowering of the pedestal to the required height, splicing the conductor to extend or shorten the connection from the transformer and, if necessary, installing new conductor from the transformer. The process also requires site inspection, identifying conductor destinations in older installations, and extending conduit (if raising) or digging (if lowering). The average time requirement for raising or lowering a secondary pedestal is 5.75 hours of labor and equipment from the Operations Service Crew.

2) Single Phase Padmounted Transformer

Transformers may need to be raised or lowered due to grade changes or improper soil conditions. The process involves de-energization and removal of the transformer followed by lifting the concrete pad, pouring gravel fill, leveling, re-installing pad and transformer, reconnecting the conductors, and finally, re-energizing the transformer. Transformer installations require an average of 13.80 hours of labor and equipment from the Operations Service Crew. Estimated time is 9.20 hours for the transformer and 4.60 hours for the concrete envelope.

- 3) Three Phase Padmounted Transformer
 This work is priced at cost by individual cost estimate.
- 4) Single Phase Junction Cabinet
 This work is priced at cost by individual cost estimate.
- 5) Three Phase Junction Cabinet
 This work is priced at cost by individual cost estimate.
- 6) Switching Cabinet
 This work is priced at cost by individual cost estimate.

7) Metal Street Light

Street lights may be removed for safety or for convenience during construction and reinstalled at a later time. This process involves disconnection of the lighting unit from the energy source, storage of the unit, and later reinstallation of a direct burial of wood or metal pole, and reconnection to the energy source. The process requires 6.90 hours of labor and equipment from the Operations Service Crew.

8) Primary and Secondary Cable
This work is priced at cost by individual cost estimate.

B. Special Service Installations

1) Secondary Service Inspections (New or Upgrade Service)

Prior to connection of electric service, Chugach inspects all retail secondary service upgrades and installations on Chugach's Side of the meter to ensure compliance with Chugach service standards. The vast majority of the inspections are provided to building contractors for initial service installations.

At the first inspection, the building contractor (or consumer) is advised of any required modifications or conditions that require correction. If necessary, Chugach will re-inspect the work for compliance with safety standards before the connection of electric service.

- A. Initial inspections are provided without charge.
- B. Per inspection charge, other than initial inspection

Chugach imposes a fee for each inspection after the initial inspection. The intent of this charge is to curtail the number of unwarranted re-inspections at the expense of other members.

Job Order Service Clerk: The time requirement for the Job Order Service clerk to prepare, submit and track each order is 30 minutes.

Journeyman Foreman: The time requirement for the Journeyman Foreman to complete the inspection is 60 minutes. Equipment costs are based on the cost of a meter technician vehicle rather than a loopwagon.

2) New Underground Residential Service, Over 100 Feet

This charge provides recovery of new underground service connections to either a pedestal or a transformer (padmounted or overhead) for service installations that exceed Chugach's standard 100 foot allowance. A riser may be required if the closest connection is overhead.

Labor is calculated based on the required hours on a per-foot basis to dig the trench and install the conductor. Boring underneath driveways may be required. If the installation is done during winter months, an additional cost for corflo is added. This installation may be completed on a: 1) Single Use Trench - Chugach Only; 2) Joint Use Trench - Two Party Installations; or 3) Joint Use Trench - Three Party Installations. Cost adjustments for installations involving joint use of a Chugach trench are based on current Letters of Agreement for Joint Trench Cost Sharing between Chugach and other participating utilities.

3) New Overhead Residential Service, Over 100 Feet, Non-winter installation

This charge provides recovery of new overhead service connections for service installations that exceed Chugach's standard 100 foot allowance. Labor is calculated based on the required hours on a per-foot basis to connect electric service to the nearest overhead transformer. In addition, a lift pole and anchor installation may be required to maintain clearance to comply with safety standards.

4) Residential Service Conversion, Overhead to Underground

A conversion from overhead to underground service occurs during customer remodeling or because of customer preference. The customer is responsible for the cost of the conversion.

This service requires connection to either a pedestal or a transformer (padmounted or overhead). A riser may be required if the closest connection is overhead. Labor and equipment is calculated based on the required hours on a per-foot basis to install the conductor and dig the trench. Boring underneath driveways may be required.

When secondary services are converted from overhead to underground, or when services are upgraded, Chugach must first disconnect service to allow the customer or the customer's contractor to complete the electrical work on the customer's side of the meter. After the work is completed and inspected, Chugach must reconnect the service. The additional time required for disconnection and subsequent service reconnection, including travel and on-site time, is approximately 3 to 4 hours.

5) Relocate Residential Overhead Service Attachment

The process of relocating residential overhead service involves the relocation of customer service entrance equipment to a new location, primarily attributed to code upgrades, increased capacity requirements, and damages to facilities. The average time requirement is 3.00 hours of labor and equipment from the Operations Service Crew.

6) Residential Service Pole

The installation of a residential service pole involves installing the pole to which overhead service connects. The average time requirement is 4.60 hours of labor and equipment from the Operations Service Crew.

7) Guard Post for Padmounted Transformer or Switch Cabinet

Guard posts are concrete-filled metal pipes, eight inches in diameter, that are used to protect transformers, switch cabinets, or poles from vehicle damage.

The average time requirement for installing a guard post is 2.88 hours of labor and equipment from the Operations Service Crew. Work involves digging a four-foot vertical hole, installing the metal pipe, backfilling and filling the pipe with concrete. The project may also require breaking up asphalt (such as in parking lots) or digging the four-foot vertical hole by hand due to utility conflicts.

8) Down Guy Relocation, per Anchor

A down guy wire may need to be relocated when increased wire size requires additional lead distance to maintain the correct tension. This relocation requires an average of 6.33 hours of labor and equipment from the Operations Service Crew. Estimated time is 1.15 hours for the down guy and 5.18 hours for each anchor. Anchors can be buried up to nine feet deep using an excavator or may be installed with a hydraulic machine depending on site conditions and expected tension to maintain.

C. Application Fee for Non-Utility Generation Interconnection

1) Application Fee for Non-Utility Generation Interconnection, Per Application

The average time requirement for the processing and inspection of a Class A or B interconnection application is 2.25 hours. The processing and approval of the application requires an average of 0.50 hours of labor from a Planning & Standards Engineer. The on-site inspection of the installation requires 0.50 hours of labor from a Meter Tech. The finalization of the interconnection agreement requires 0.25 hours of labor from an Administrative Secretary. The signing of the finalized interconnection agreement and permission to energize requires 0.25 hours of labor for a Planning & Standards Engineer. The updating of Chugach's database, uploading of site photos, and notification to Member Services of the installation requires 0.50 hours of labor from a Planning & Standards Engineer. The changes to a members account type in Chugach's Customer Information System requires 0.25 hours of labor from a Customer Services Representative.

EXHIBIT 2

Description of Charge	Labor Cost (Exhibit 4) b	Equipment and Material Cost (Exhibit 4) c	Total Direct Cost d	Distribution Overhead e	Joint Trench Contribution	Total Cost	Proposed Charge h	Current Charge i	Percent Change
A. Raising or Lowering of Facilities									
Secondary Pedestal	\$581.81	\$274.40	\$856.21	\$214.05		\$1,070.27	\$1,070	\$1,075	-0.5%
2. Single Phase Padmounted Transformer	\$1,396.35	\$658.57	\$2,054.92	\$513.73		\$2,568.64	\$2,570	\$2,575	-0.2%
3. Three Phase Padmounted Transformer									
4. Single Phase Junction Cabinet									
5. Three Phase Junction Cabinet									
6. Switching Cabinet									
7. Metal Street Light	\$698.17	\$329.29	\$1,027.46	\$256.86		\$1,284.32	\$1,285	\$1,290	-0.4%
8. Primary and Secondary Cable									

	Labor Cost	Equipment and Material	Total	Distribution	Joint Trench	Total	Proposed	Current	Percent
Description of Charge	(Exhibit 4)	Cost (Exhibit 4)	Direct Cost	Overhead	Contribution	Cost	Charge	Charge	Change
a	b	c	d	e	f	g	h	i	j
B. Special Service Installations									
1. Secondary Service Inspections (New or Upgrade Service)									
a) Initial Inspection									
b) Per Inspection Charge, Other than Initial Inspection	\$140.69	\$9.25	\$149.94	\$37.49		\$187.43	\$190.00	\$190.00	0.0%
2. New Underground Residential Service, Over 100 Feet									
Single Use Trench - Chugach Only									
a) Installation Without Temporary Corflo Placement	\$6.78	\$5.94	\$12.72	\$3.18		\$15.90	\$15.90	\$14.90	6.7%
b) Installation Requiring Temporary Corflo Placement	\$11.13	\$10.09	\$21.22	\$5.30		\$26.52	\$26.50	\$20.50	29.3%

Description of Charge	Labor Cost (Exhibit 4) b	Equipment and Material Cost (Exhibit 4) c	Total Direct Cost d	Distribution Overhead e	Joint Trench Contribution	Total Cost	Proposed Charge h	Current Charge i	Percent Change j
Joint Use Trench - Two Party Installations									
c) Installation Without Temporary Corflo Placement	\$6.78	\$5.94	\$12.72	\$3.18	(\$1.26)	\$14.64	\$14.60	\$13.70	6.6%
d) Installation Requiring Temporary Corflo Placemen	\$11.13	\$10.09	\$21.22	\$5.30	(\$1.26)	\$25.26	\$25.30	\$19.30	31.1%
Joint Use Trench - Three Party Installations									
e) Installation Without Temporary Corflo Placemen	\$6.78	\$5.94	\$12.72	\$3.18	(\$1.50)	\$14.40	\$14.40	\$13.40	7.5%
f) Installation Requiring Temporary Corflo Placemen	\$11.13	\$10.09	\$21.22	\$5.30	(\$1.50)	\$25.02	\$25.00	\$19.00	31.6%
3. New Overhead Residential Service, Over 100 Feet	\$1.82	\$2.67	\$4.49	\$1.12		\$5.61	\$5.60	\$5.30	5.7%
4. Residential Service Conversion, Overhead to Underground	**-						**	***	
a) Conductor and Trenching b) Service Disconnect / Reconnect	\$6.78 \$303.55	\$5.94 \$143.17	\$12.72 \$446.72			\$15.90 \$558.40	\$15.90 \$560.00	\$14.90 \$560.00	6.7% 0.0%
c) Secondary Riser, if Required Subtotal	\$698.17	\$708.04		\$351.55		\$1,757.77	\$1,760.00 \$2,335.90	\$1,685.00 \$2,259.90	4.5% 3.4%

	Labor Cost	Equipment and Material	Total	Distribution	Joint Trench	Total	Proposed	Current	Percent
Description of Charge	(Exhibit 4)	Cost (Exhibit 4)	Direct Cost	Overhead	Contribution	Cost	Charge	Charge	Change
a	b	c	d	e	f	g	h	i	j
5. Relocate Residential Overhead Service Attachment	\$303.55	\$143.17	\$446.72	\$111.68		\$558.40	\$560	\$560	0.0%
6. Residential Service Pole	\$465.45	\$815.36	\$1,280.81	\$320.20		\$1,601.01	\$1,600	\$1,435	11.5%
7. Guard Post for Padmounted Transformer or Switch Cabinet	\$290.91	\$834.20	\$1,125.11	\$281.28		\$1,406.38	\$1,405	\$1,240	13.3%
8. Down Guy Relocation, per Anchor	\$640.50	\$628.59	\$1,269.09	\$317.27		\$1,586.36	\$1,585	\$1,475	7.5%
C. Application Fee for Non-Utility Generation Interconnection									
1. Application Fee for Non-Utility Generation Interconnection, per Application	\$180.99		\$180.99	\$45.25		\$226.23	\$225	\$220	2.3%

EXHIBIT 3

	Estimated	Total Feet	Curre	ent	Proposed		Differe	nce
Description of Charge	Services	> 100	Charge	Revenue	Charge	Revenue	Charge	Revenue
a		c	d	e	f	g	h	i
A. Raising or Lowering Facilities								
Secondary Pedestal	90		\$1,075	\$96,750	\$1,070	\$96,300	(\$5)	(\$450)
2. Single Phase Padmounted Transformer	8		\$2,575	\$20,600	\$2,570	\$20,560	(\$5)	(\$40)
3. Three Phase Padmounted Transformer			Chugach Cost		Chugach Cost		Chugach Cost	
4. Single Phase Junction Cabinet			Chugach Cost		Chugach Cost		Chugach Cost	
5. Three Phase Junction Cabinet			Chugach Cost		Chugach Cost		Chugach Cost	
6. Switching Cabinet			Chugach Cost		Chugach Cost		Chugach Cost	
7. Metal Street Light	8		\$1,290	\$10,320	\$1,285	\$10,280	(\$5)	(\$40)

	Estimated	Total Feet	Current		Proposed		Differe	ence
Description of Charge	Services	> 100	Charge	Revenue	Charge	Revenue	Charge	Revenue
a		c	d	e	f	g	h	i
8. Primary and Secondary Cable			Chugach Cost		Chugach Cost		Chugach Cost	
B. Special Service Installations								
1. Secondary Service Inspections (New or Upgrade Service)								
a) Initial Inspection								
b) Per Inspection Charge, Other Than Initial Inspection	10		\$190.00	\$1,900	\$190.00	\$1,900	\$0.00	\$0
2. New Underground Residential Service, Over 100 Feet								
Single Use Trench - Chugach Only								
a) Installation Without Temporary Corflo Placement	60	3,600	\$14.90	\$53,640	\$15.90	\$57,240	\$1.00	\$3,600
b) Installation Requiring Temporary Corflo Placement	20	1,200	\$20.50	\$24,600	\$26.50	\$31,800	\$6.00	\$7,200

	Estimated	Total Feet	Curre	ent	Propo	sed	Difference	
Description of Charge	Services	> 100	Charge	Revenue	Charge	Revenue	Charge	Revenue
a		c	d	e	f	g	h	i
Joint Use Trench - Two Party Installations								
c) Installation Without Temporary Corflo Placement	4	240	\$13.70	\$3,288	\$14.60	\$3,504	\$0.90	\$216
d) Installation Requiring Temporary Corflo Placement	4	240	\$19.30	\$4,632	\$25.30	\$6,072	\$6.00	\$1,440
Joint Use Trench - Three Party Installations								
e) Installation Without Temporary Corflo Placement	8	480	\$13.40	\$6,432	\$14.40	\$6,912	\$1.00	\$480
f) Installation Requiring Temporary Corflo Placement	12	720	\$19.00	\$13,680	\$25.00	\$18,000	\$6.00	\$4,320
3. New Overhead Residential Service, Over 100 Feet	18	1,080	\$5.30	\$5,724	\$5.60	\$6,048	\$0.30	\$324
 4. Residential Service Conversion, Overhead to Underground a) Conductor and Trenching b) Service Disconnect / Reconnect c) Secondary Riser, if Required 	70 10 35	4,200 	\$14.90 \$560.00 \$1,685.00	\$62,580 \$5,600 \$58,975	\$15.90 \$560.00 \$1,760.00	\$66,780 \$5,600 \$61,600	\$1.00 \$0 \$75	\$4,200 \$0 \$2,625

	Estimated	Total Feet	Curr	ent	Propo	sed	Differe	nce
Description of Charge	Services	> 100	Charge	Revenue	Charge	Revenue	Charge	Revenue
a		c	d	e	f	g	h	i
5. Relocate Residential Overhead Service Attachmen	7		\$560	\$3,920	\$560	\$3,920	\$0	\$0
6. Residential Service Pole	5		\$1,435	\$7,175	\$1,600	\$8,000	\$165	\$825
7. Guard Post for Padmounted Transformer or Switch Cabinet	4		\$1,240	\$4,960	\$1,405	\$5,620	\$165	\$660
8. Down Guy Relocation, per Anchor	10		\$1,475	\$14,750	\$1,585	\$15,850	\$110	\$1,100
C. Application Fee for Non-Utility Generation Interconnection								
1. Application Fee for Non-Utility Generation Interconnection, per Application	175		\$220	\$38,500	\$225	\$39,375		\$875
Total	558	-		\$438,026		\$465,361		\$27,335

EXHIBIT 4

	Required Labor Cost			Equipment Cost		Material Cost (unit or per foot)			
Description of Charge	Hours	Hourly Rate	Total	Hourly Rate	Total		No. Units	Total	Total Cost
a	b	c	d	e	f	g	h	i	j
A. Raising or Lowering Facilities									
Secondary Pedestal	5.75	\$101.18	\$581.81	\$47.72	\$274.40				\$856.21
2. Single Phase Padmounted Transformer									
a) Transformer	9.20	\$101.18	\$930.90		\$439.05				\$1,369.94
b) Concrete	4.60	\$101.18	\$465.45	\$47.72	\$219.52				\$684.97
Total	13.80		\$1,396.35		\$658.57				\$2,054.92
3. Three Phase Padmounted Transformer									Chugach Cost
4. Single Phase Junction Cabinet									Chugach Cost
5. Three Phase Junction Cabinet									Chugach Cost
6. Switching Cabinet									Chugach Cost
7. Metal Street Light	6.90	\$101.18	\$698.17	\$47.72	\$329.29				\$1,027.46

	Required	Labor C	ost	Equipment	Cost	Material (Cost (unit or p	er foot)	
Description of Charge	Hours	Hourly Rate	Total	Hourly Rate	Total	Unit Cost	No. Units	Total	Total Cost
a	b	c	d	e	f	g	h	i	j
8. Primary and Secondary Cable									Chugach Cost
B. Special Service Installations									
Secondary Service Inspections (New or Upgrade Service) a) Initial Inspection									
b) Per Inspection Charge, Other Than Initial Inspection * (labor cost: foreman = 1 hr, job order clerk = 0.5 hrs)	1.000 0.500	\$108.10 \$65.18	\$108.10 \$32.59	\$9.25 \$0.00	\$9.25 \$0.00				\$117.35 \$32.59
(labor cost. foreman – 1 m, job order cierk – 0.5 ms)	1.500	\$03.18	\$140.69	\$0.00	\$9.25				\$149.94
* Supporting documentation for the equipment hourly rate calculation was included in TA247-8, Exhibit 5, page 3	3.								
2. New Underground Residential Service, Over 100 Fee									
Single Use Trench - Chugach Only									
a) Installation Without Temporary Corflo Placemen	0.015	¢101 10	¢1.50	647.70	eo 72	¢2.74	1.00	eo 74	64.07
 Conductor (4/0 3-wire) Trenching 	0.015 0.052	\$101.18 \$101.18	\$1.52 \$5.26	\$47.72 \$47.72	\$0.72 \$2.48	\$2.74	1.00	\$2.74	\$4.97 \$7.74
Total	0.052	ψ101.16	\$6.78	ψ+1.12	\$3.20	\$2.74	1.00	\$2.74	\$12.72

	Required	Labor C	Cost	Equipment	Cost	Material (Cost (unit or p	er foot)	
Description of Charge	Hours	Hourly Rate	Total	Hourly Rate	Total	Unit Cost	No. Units	Total	Total Cost
a	b	c	d	e	f	g	h	i	j
b) Installation Requiring Temporary Corflo Placemen									
1. Winter Corflo	0.026	\$101.18	\$2.63	\$47.72	\$1.24	\$2.10	1.00	\$2.10	\$5.97
2. Conductor (4/0 3-wire)	0.032	\$101.18	\$3.24	\$47.72	\$1.53	\$2.74	1.00	\$2.74	\$7.51
3. Trenching	0.052	\$101.18	\$5.26	\$47.72	\$2.48				\$7.74
Total	0.110		\$11.13		\$5.25	\$4.84	2.00	\$4.84	\$21.22
Joint Use Trench - Two Party Installations									
c) Installation Without Temporary Corflo Placemen	0.067	\$101.18	\$6.78	\$47.72	\$3.20	\$2.74	1.00	\$2.74	\$12.72
d) Installation Requiring Temporary Corflo Placemen	0.110	\$101.18	\$11.13	\$47.72	\$5.25	\$4.84	2.00	\$4.84	\$21.22
Joint Use Trench - Three Party Installations									
e) Installation Without Temporary Corflo Placemen	0.067	\$101.18	\$6.78	\$47.72	\$3.20	\$2.74	1.00	\$2.74	\$12.72
f) Installation Requiring Temporary Corflo Placemen	0.110	\$101.18	\$11.13	\$47.72	\$5.25	\$4.84	2.00	\$4.84	\$21.22
3. New Overhead Residential Service, Over 100 Feet (1/0 TPX)	0.018	\$101.18	\$1.82	\$47.72	\$0.86	\$1.81	1.00	\$1.81	\$4.49

	Required	Labor C	ost	Equipment	Cost	Material (Cost (unit or p	er foot)	
Description of Charge	Hours	Hourly Rate	Total	Hourly Rate	Total	Unit Cost	No. Units	Total	Total Cost
a	b	с	d	e	f	g	h	i	j
4. Pasidantial Samina Conversion, Overhand to Undergroups									
Residential Service Conversion, Overhead to Underground Onductor and Trenching	0.067	\$101.18	\$6.78	\$47.72	\$3.20	\$2.74	1.00	\$2.74	\$12.72
b) Service Disconnect / Reconnect	3.000	*	\$303.55	\$47.72 \$47.72	\$143.17	\$0.00	0.00	\$0.00	\$12.72 \$446.72
c) Secondary Riser, if Required	6.900		\$698.17	\$47.72 \$47.72	\$329.29	\$378.76		\$378.76	\$1,406.21
c) Secondary Riser, in Required	0.900	\$101.10	\$090.17	φ -1 .12	\$329.29	\$376.70	1.00	\$376.70	\$1,400.21
5. Relocate Residential Overhead Service Attachmen	3.000	\$101.18	\$303.55	\$47.72	\$143.17	\$0.00	0.00	\$0.00	\$446.72
6. Residential Service Pole	4.600	\$101.18	\$465.45	\$47.72	\$219.52	\$595.84	1.00	\$595.84	\$1,280.81
7. Guard Post for Padmounted Transformer or Switch Cabinet	2.875	\$101.18	\$290.91	\$47.72	\$137.20	\$697.00	1.00	\$697.00	\$1,125.11
8. Down Guy Relocation, per Anchor									
a) Down Guy	1.150	\$101.18	\$116.36	\$47.72	\$54.88	\$79.14	1.00	\$79.14	\$250.38
b) Anchor	5.180		\$524.14	\$47.72	\$247.20	\$247.37	1.00	\$247.37	\$1,018.71
Total	6.330		\$640.50	* : :	\$302.08	\$326.51	1.00	\$326.51	\$1,269.09
C. Application Fee for Non-Utility Generation Interconnection									
1. Application Fee for Non-Utility Generation Interconnection, per Application	2.250		\$180.99	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$180.99
Total	2.250	\$80.44	\$180.99	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$180.99

EXHIBIT 5

Calculation of Average Hourly Equipment and Labor Costs for Operations Service Crews

	Two-Person	Three-Person Four-Person			Average
Description	Loopwagon	UG Service Crew	Heavy Crew	Total	per hour 1
a	b	c	d	e	f
Equipment Cost					
Loopwagon	\$52.37			\$52.37	
Line Truck		\$107.30	\$107.30	\$214.60	
Crane/Digger/Other Truck			\$84.20	\$84.20	
Back Hoe		\$29.92		\$29.92	
Back Hoe Trailer		\$18.50		\$18.50	
Manhaul			\$29.92	\$29.92	
Total	\$52.37	\$155.72	\$221.41	\$429.50	\$47.72
<u>Labor Cost</u>					
Foreman Lineman		\$108.10	\$108.10	\$216.20	
Leadman	\$101.48			\$101.48	
Journeyman Lineman	\$98.83	\$197.66	\$296.49	\$592.98	
Total	\$200.31	\$305.76	\$404.59	\$910.66	\$101.18

¹ Based on total service crew of 9.

EXHIBIT 6

Calculation of Average Hourly Labor Costs for Non-Utility Generation Interconnection Application

		Direct	Indirect	Hourly	Total	Average
Description	Hours	Labor	Labor	Rate	Labor	Hourly Labor
Planning & Standards Engineer	1.25	\$37.14	\$37.51	\$74.65	\$93.31	
Meter Tech 5%	0.50	\$68.63	\$43.10	\$111.73	\$55.87	
Administrative Secretary	0.25	\$35.53	\$29.80	\$65.33	\$16.33	
CSR II	0.25	\$32.14	\$29.76	\$61.90	\$15.48	
	2.25				\$180.99	\$80.44

Attachment I

LETTER OF AGREEMENT FOR JOINT TRENCH COST SHARING BETWEEN CHUGACH ELECTRIC ASSOCIATION, INC. AND GENERAL COMMUNICATION INC.

Effective January 1, 2017

This letter of agreement is to implement an arrangement for joint trench and joint service trench assessment charges. By signature below, General Communication Inc. (GCI) and Chugach Electric Association, Inc. (Chugach) agree to the following:

A. Joint Trench (excluding Residential Service Trench and Service Wire Installation)

- 1. Projects involving trunk or mainline distribution cables shall be defined on a project-by-project basis by the Design Engineers for both utilities. During the design phase of a project, each party agrees to make reasonable effort to advise the other party of proposed work that might afford joint trenching opportunity.
- 2. Chugach will follow the same procedures for all GCI projects that Chugach seeks to participate in joint trench. Project construction schedules shall be set by the utility administering the work.
- 3. Unless other arrangements are made with the contractor or Chugach line crew prior to the work, the contractor or Chugach line crew shall provide all labor to install GCI supplied communications materials.
- 4. The rate for conventional trenching and road crossings are identified in Appendix A and are subject to updates on an annual basis no later than May of each year to be effective the first day of June. Chugach shall notify GCI at least thirty (30) days before formalizing revised rates. The division of trenching costs for each party is based on the number of parties participating in the trench.
 - Two-Party Installations: GCI pays for 45% of the trench costs
 - Three-Party Installations: GCI pays for 30% of the trench costs

In the event directional drilling, winter thawing, removal/replacement of curb and gutter or additional requirements are needed, the participating utilities will pay an agreed upon amount based on the work.

5. For line extensions where Chugach is reimbursed by a customer or applicant, Chugach will not charge GCI for the portion of the trench being reimbursed. This provision does not apply to joint service trench installations.

6. Upon each project completion, excluding service installations, and at a time mutually agreed to by both utility field inspectors, the utilities shall meet at the project site for final inspection of joint trench construction. Chugach shall fill out a Joint Trench Construction Report found in Appendix B, which shall be verified by the GCI Inspector on site.

B. Residential Service Trench and Service Wire Installation

- 1. Unless other arrangements are made with the contractor or Chugach line crew prior to the work, the contractor or Chugach line crew shall provide all labor to install GCI supplied communications materials.
- 2. The rate for service trenching is identified in Appendix A and is subject to updates on an annual basis no later than May of each year to be effective on the first day of June. The division of service trenching costs for each party is based on the number of parties participating in the trench.
 - Two-Party Installations: GCI pays for 25% of the service trench costs
 - Three-Party Installations: GCI pays for 15% of the service trench costs
- 3. The rate for installation of GCI coaxial or fiber optic service cable by Chugach crews is identified in Appendix A. This is for cable installation and is in addition to trenching costs.
- 4. The parties agree that service installations will not require individual site inspections and therefore a Joint Trench Construction Report is not required.

C. Billing and Invoicing

- 1. Chugach will bill GCI quarterly on a project-by-project basis. Invoices shall provide the project name, GCI work order number and Chugach's work order number for projects. For services, sufficient information will be provided for GCI to correlate billing to each service location.
- 2. GCI shall process Chugach billings for joint trench on a Net 30-day term upon receipt of invoice from Chugach.
- 3. Chugach invoices are to be directed to:

General Communication Inc. (GCI) 5151 Fairbanks Street Anchorage, AK 99503 Attn: Rick Williams LETTER OF AGREEMENT FOR JOINT TRENCH COST SHARING BETWEEN CHUGACH ELECTRIC ASSOCIATION, INC. AND GENERAL COMMUNICATION INC. January 1, 2017

4. Where GCI is billing, the reciprocal shall apply and invoices directed to:

Chugach Electric Association, Inc. 5601 Electron Drive Anchorage, AK 99518 Attn: Distribution Engineering

D. Access to Work Site

Either party may at any time have access to work sites for the purpose of inspection.

E. Application of Agreement to Projects

This Agreement shall apply to all new projects or those projects already in design, which will have line extension, and/or subdivision agreements executed by Chugach on January 1, 2017 or later. In addition, it shall apply to all new services installed after January 1, 2017.

F. Term of Agreement

This Agreement is effective starting January 1, 2017 and will automatically renew each year unless cancelled in writing by either party with ninety (90) days' notice.

____ Date: 3/22/2012

Agreed Upon By:

CHUGACH ELECTRIC ASSOCIATION, INC.

Shill Schnitt	Date:	2	28	12017
Shelly R. Schmitt, B.E.				
Senior Manager, Distribution Engineering				

GENERAL COMMUNICATION, INC.

Dennis Hardman

Vice President, Network Operations

Appendix A

Trenching Rates Effective January 1, 2016

A. Joint trench (excluding service trench)	\$6.44/foot
A1. GCI assessment for two party installation (45% of A)	\$2.90/foot
A2. GCI assessment for three party installation (30% of A)	\$1.93/foot
B. Joint road crossing – no asphalt	\$19.85/foot
B1. GCI assessment for two party installation (45% of B)	\$8.93/foot
B2. GCI assessment for three party installation (30% of B)	\$5.96/foot
C. Joint road crossing – with asphalt	\$44.02/foot
C1. GCI assessment for two party installation (45% of C)	\$19.81/foot
C2. GCI assessment for three party installation (30% of C)	\$13,21/foot
D. Joint service trench (excluding installation of GCI cable)	\$5.02/foot
D1. GCI assessment for two party installation (25% of D)	\$1.26/foot
D2. GCI assessment for three party installation (15% of D)	\$0.75/foot
E. Installation of GCI service cable in trench – not dependent on # of parties	\$1.18/foot

Appendix B: JOINT TRENCH CONSTRUCTION REPORT

Project Name:			
Chugach Work Order:		7	9 WHERE 300 A
GCI Work Order:		14270	
Electrical Contractor:			
Completion Date:	2		
Joint Trench Participants	Chugach 🔲 (GCI	
Joint Trench	Two party:	.45 x \$ 6.44 x	ft = \$
	Three party:	.30 x \$ 6.44 x	ft = \$
Road Crossing with Asphalt	Two party:	.45 x \$ 44.02 x	ft = \$
	Three party:		
Road crossing with no Asphalt	Two party:	.45 x \$ 19.85 x	ft = \$
	Three party:	.30 x \$ 19.85 x	ft = \$
Service Trench	Two party:	.25 x \$ 5.02 x	ft = \$
	Three party:	.15 x \$ 5.02 x	ft = \$
Service Cable (only Chugach C	rew installs)	\$ 1.18 x	ft = \$
Additional Costs/Notes:			
	3 10 W W 300MAN		200
	 	7715	MI - 107.
Prepared by (Chugach):		Date:	
Accepted by (GCI):		Date:	