CHUGACH ELECTRIC ASSOCIATION, INC.

Financial Statements

December 31, 2019 and 2018

(With Report of Independent Registered Accounting Firm Thereon)

KPMG LLP
Suite 600
701 West Eighth Avenue
Anchorage, AK 99501

Report of Independent Registered Public Accounting Firm

The Members and the Board of Directors
Chugach Electric Association, Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Chugach Electric Association, Inc. and subsidiary (the Company) as of December 31, 2019 and 2018, the related consolidated statements of operations, changes in equities and margins, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

Change in Accounting Principle

As discussed in Note 3 to the consolidated financial statements, effective *January 1,* 2018, the Company has changed its method of accounting for revenue from contracts with customers due to the adoption of Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2014-09, *Revenue from Contracts with Customers* (Topic 606), and related amendments.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

KPMG LLP

We have served as the Company's auditor since 1983.

Anchorage, Alaska
March 20, 2020

Chugach Electric Association, Inc.
Consolidated Balance Sheets
December 31, 2019 and 2018

Assets		December 31, 2019		December 31, 2018
Utility plant:				
Electric plant in service	$	1,242,523,092	$	1,216,663,092
Construction work in progress		16,966,608		17,272,307
Total utility plant		1,259,489,700		1,233,935,399
Less accumulated depreciation		(556,209,740)		(529,099,451)
Net utility plant		703,279,960		704,835,948
Other property and investments, at cost:				
Nonutility property		76,889		76,889
Operating lease right-of-use assets		958,111		0
Investments in associated organizations		8,148,426		8,570,046
Special funds		2,603,505		1,890,221
Restricted cash equivalents		108,000		108,000
Total other property and investments		11,894,931		10,645,156
Current assets:				
Cash and cash equivalents		7,271,820		6,106,995
Special deposits		54,300		54,300
Restricted cash equivalents		1,244,155		1,213,974
Marketable securities		194,183		6,316,583
Fuel cost under-recovery		1,445,753		0
Accounts receivable, less provision for doubtful accounts of $446,837 in 2019 and $444,184 in 2018		30,120,230		31,165,249
Materials and supplies		18,014,480		16,223,477
Fuel stock		12,250,567		11,952,086
Prepayments		2,699,308		2,227,117
Other current assets		235,132		241,279
Total current assets		73,529,928		75,501,060
Other non-current assets:				
Deferred charges, net		45,880,452		37,668,424
Total other non-current assets		45,880,452		37,668,424
Total assets	$	834,585,271	$	828,650,588

(Continued)

Chugach Electric Association, Inc.
Consolidated Balance Sheets (continued)
December 31, 2019 and 2018

Liabilities, Equities and Margins	December 31, 2019	December 31, 2018
Equities and margins:		
Memberships	$ 1,776,592	$ 1,748,172
Patronage capital	177,380,964	177,823,597
Other	15,309,357	14,952,925
Total equities and margins	194,466,913	194,524,694
Long-term obligations, excluding current installments:		
Bonds payable	449,999,997	398,416,664
Notes payable	30,552,000	33,972,000
Less unamortized debt issuance costs	(2,684,537)	(2,425,247)
Operating lease liabilities	738,713	0
Total long-term obligations	478,606,173	429,963,417
Current liabilities:		
Current installments of long-term obligations	27,056,065	26,608,667
Commercial paper	24,000,000	61,000,000
Accounts payable	8,316,375	9,538,749
Consumer deposits	4,294,770	4,845,611
Fuel cost over-recovery	0	3,388,295
Accrued interest	5,717,759	5,671,840
Salaries, wages and benefits	7,387,746	7,863,112
Fuel	6,765,881	5,844,856
Other current liabilities	12,627,008	10,085,556
Total current liabilities	96,165,604	134,846,686
Other non-current liabilities:		
Deferred compensation	1,775,759	1,359,878
Other liabilities, non-current	398,790	580,841
Deferred liabilities	903,870	764,834
Patronage capital payable	0	3,393,253
Cost of removal obligation / asset retirement obligation	62,268,162	63,216,985
Total other non-current liabilities	65,346,581	69,315,791
Total liabilities, equities and margins	$ 834,585,271	828,650,588

See accompanying notes to financial statements.

Chugach Electric Association, Inc.
Consolidated Statements of Operations
Years Ended December 31, 2019, 2018 and 2017

	2019	2018	2017
Operating revenues	$ 212,516,561	$ 202,252,742	$ 224,688,669
Operating expenses:			
Fuel	59,038,626	56,283,541	78,552,672
Production	20,201,534	17,797,549	18,006,490
Purchased power	22,630,765	19,978,497	17,301,067
Transmission	7,260,615	7,361,503	6,129,871
Distribution	15,222,079	14,960,770	13,991,088
Consumer accounts	6,730,109	6,662,590	5,968,736
Administrative, general and other	23,864,202	22,651,092	23,256,983
Depreciation and amortization	31,299,685	29,875,683	34,010,777
Total operating expenses	$ 186,247,615	$ 175,571,225	197,217,684
Interest expense:			
Long-term debt and other	22,338,868	22,164,007	22,366,034
Charged to construction	(338,904)	(306,377)	(164,898)
Interest expense, net	$ 21,999,964	$ 21,857,630	22,201,136
Net operating margins	$ 4,268,982	$ 4,823,887	5,269,849
Nonoperating margins:			
Interest income	585,039	732,165	644,663
Allowance for funds used during construction	152,930	127,629	69,157
Capital credits, patronage dividends and other	112,676	(320,807)	65,055
Total nonoperating margins	$ 850,645	$ 538,987	778,875
Assignable margins	$ 5,119,627	$ 5,362,874	$ 6,048,724

See accompanying notes to financial statements.

Chugach Electric Association, Inc.
Consolidated Statements of Changes in Equities and Margins
Years Ended December 31, 2019, 2018 and 2017

	2019	2018	2017
Memberships:			
Balance at beginning of period	$ 1,748,172	$ 1,719,154	$ 1,691,014
Memberships and donations received	28,420	29,018	28,140
Balance at end of period	$ 1,776,592	$ 1,748,172	$ 1,719,154
Other equities and margins:			
Balance at beginning of period	14,952,925	14,653,253	13,828,075
Unclaimed capital credits retired	(15,935)	105,651	612,752
Memberships and donations received	372,367	194,021	212,426
Balance at end of period	$ 15,309,357	$ 14,952,925	$ 14,653,253
Patronage capital:			
Balance at beginning of period	177,823,597	172,928,887	169,996,436
Assignable margins	5,119,627	5,362,874	6,048,724
Retirement/net transfer of capital credits	(5,562,260)	(468,164)	(3,116,273)
Balance at end of period	$ 177,380,964	$ 177,823,597	$ 172,928,887
Total equities and margins	$ 194,466,913	$ 194,524,694	$ 189,301,294

See accompanying notes to financial statements.

Chugach Electric Association, Inc.
Consolidated Statements of Cash Flows
Years Ended December 31, 2019, 2018 and 2017

	2019	2018	2017
Cash flows from operating activities:			
Assignable margins	$ 5,119,627	$ 5,362,874	$ 6,048,724
Adjustments to reconcile assignable margins to net cash provided by operating activities:			
Depreciation and amortization	31,299,685	29,875,683	34,010,777
Amortization and depreciation cleared to operating expenses	7,401,527	5,550,438	4,791,978
Allowance for funds used during construction	(152,930)	(127,629)	(69,157)
Write off of inventory, deferred charges and projects	571,067	175,608	413,690
Other	(107,769)	410,249	27,986
(Increase) decrease in assets:			
Accounts receivable, net	(544,554)	5,485,914	(2,858,099)
Fuel cost under-recovery	(1,445,753)	4,921,794	(4,921,794)
Materials and supplies	(1,812,024)	(992,627)	896,455
Fuel stock	(298,481)	(5,050,092)	(580,318)
Prepayments	(472,191)	2,726,053	(3,546,144)
Other assets	6,147	15,914	59,146
Deferred charges	(13,699,839)	(8,896,613)	(201,775)
Increase (decrease) in liabilities:			
Accounts payable	(421,479)	1,137,415	(1,469,106)
Consumer deposits	(550,841)	(490,285)	128,311
Fuel cost over-recovery	(3,388,295)	3,388,295	(3,824,722)
Accrued interest	45,919	(319,779)	118,251
Salaries, wages and benefits	(475,366)	845,981	(298,767)
Fuel	921,025	(4,068,925)	3,629,443
Other current liabilities	(2,303,287)	(8,930)	(2,045,800)
Deferred liabilities	11,813	(367,051)	(17,927)
Net cash provided by operating activities	19,704,001	39,574,287	30,291,152
Cash flows from investing activities:			
Return of capital from investment in associated organizations	421,899	414,187	370,010
Investment in special funds	(288,568)	(309,188)	(236,716)
Investment in marketable securities and investments-other	(216,453)	(2,872,104)	(924,903)
Proceeds from the sale of marketable securities	6,437,508	7,666,196	0
Proceeds from capital grants	0	0	115,453
Extension and replacement of plant	(33,441,408)	(27,321,158)	(28,879,926)
Net cash used in investing activities	(27,087,022)	(22,422,067)	(29,556,082)
Cash flows from financing activities:			
Payments for debt issue costs	(515,455)	0	(206,871)
Net increase (decrease) in short-term obligations	(37,000,000)	11,000,000	(18,200,000)
Proceeds from long-term obligations	75,000,000	0	40,000,000
Repayments of long-term obligations	(26,608,667)	(26,608,667)	(24,836,667)
Memberships and donations received	384,852	328,690	853,318
Retirement of patronage capital and estate payments	(7,024,218)	(5,872,988)	(2,258,047)
Proceeds from consumer advances for construction	4,342,627	4,294,276	4,798,509
Repayments of consumer advances for construction	(1,112)	(66,321)	(66,770)
Net cash (used in) provided by financing activities	8,578,027	(16,925,010)	83,472
Net change in cash, cash equivalents, and restricted cash equivalents	1,195,006	227,210	818,542
Cash, cash equivalents, and restricted cash equivalents at beginning of period	$ 7,428,969	$ 7,201,759	$ 6,383,217
Cash, cash equivalents, and restricted cash equivalents at end of period	$ 8,623,975	$ 7,428,969	$ 7,201,759
Supplemental disclosure of non-cash investing and financing activities:			
Cost of removal obligation	$ (948,823)	$ 2,502,966	$ 2,110,487
Extension and replacement of plant included in accounts payable	$ 1,365,948	$ 2,149,039	$ 1,185,788
Patronage capital retired/net transferred and included in other current liabilities	$ 1,931,295	$ 2,000,000	$ 2,057,036
Supplemental disclosure of cash flow information - interest expense paid, net of amounts capitalized	$ 21,008,829	$ 21,041,442	$ 20,911,535

See accompanying notes to financial statements.

(1) Description of Business

Chugach Electric Association, Inc. ("Chugach") is one of the largest electric utilities in Alaska. Chugach is engaged in the generation, transmission and distribution of electricity in the Anchorage and upper Kenai Peninsula areas. Chugach is on an interconnected regional electrical system referred to as the Alaska Railbelt, a 400-mile-long area stretching from the coastline of the southern Kenai Peninsula to the interior of the state, including Alaska's largest cities, Anchorage and Fairbanks.

Chugach's retail and wholesale members are the consumers of the electricity sold. Chugach supplies much of the power requirements to the City of Seward ("Seward"), as a wholesale customer. Occasionally, Chugach sells available generation, in excess of its own needs, to Matanuska Electric Association, Inc. ("MEA"), Homer Electric Association, Inc. ("HEA"), Golden Valley Electric Association, Inc. ("GVEA"), and Anchorage Municipal Light & Power ("ML&P").

Chugach was organized as an Alaska electric cooperative in 1948 and operates on a not-for-profit basis and, accordingly, seeks only to generate revenues sufficient to pay operating and maintenance costs, the cost of purchased power, capital expenditures, depreciation, and principal and interest on all indebtedness and to provide for reserves. Chugach is subject to the authority of the Regulatory Commission of Alaska ("RCA").

The consolidated financial statements include the activity of Chugach and the activity of the Beluga River Unit ("BRU"). Chugach accounts for its share of BRU activity using proportional consolidation (see *Note 15 – "Beluga River Unit"*). Intercompany activity has been eliminated for presentation of the consolidated financial statements.

(2) Significant Accounting Policies

a. Management Estimates

In preparing the financial statements in conformity with United States generally accepted accounting principles ("GAAP"), the management of Chugach is required to make estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the balance sheet and revenues and expenses for the reporting period. Estimates include the allowance for doubtful accounts, workers' compensation liability, deferred charges and liabilities, unbilled revenue, estimated useful life of utility plant, cost of removal and asset retirement obligation ("ARO"), and remaining proved BRU reserves. Actual results could differ from those estimates.

b. Regulation

The accounting records of Chugach conform to the Uniform System of Accounts as prescribed by the Federal Energy Regulatory Commission ("FERC"). Chugach meets the criteria, and accordingly, follows the accounting and reporting requirements of Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 980, "Topic 980 - Regulated Operations." FASB ASC 980 provides for the recognition of regulatory assets and liabilities as allowed by regulators for costs or credits that are reflected in current rates or are considered probable of being included in future rates. Our regulated rates are established to recover all of our specific costs of providing electric service. In each rate filing, rates are set at levels to recover all of our specific allowable costs and those rates are then collected from our retail and wholesale customers. The regulatory assets or liabilities are then reduced as the cost or credit is reflected in earnings and our rates, see *Note (2n) – "Deferred Charges and Liabilities."*

c. Utility Plant and Depreciation

Additions to electric plant in service are recorded at original cost of contracted services, direct labor and materials, indirect overhead charges and capitalized interest less contributions in aid of construction ("CIAC"). As an electric utility, Chugach follows the FERC system of accounts which recommends that CIAC be recorded as a reduction to utility property plant and equipment. FASB ASC 210-10-S99, "Section S99 – SEC Materials," requires the utility plant of a public utility company to present the cost and adjustments thereto as required by the system of accounts prescribed by the applicable regulatory authorities.

For property replaced or retired, the book value of the property, removal cost, less salvage, is charged to accumulated depreciation. Renewals and betterments are capitalized, while maintenance and repairs are normally charged to expense as incurred.

In accordance with FASB ASC 360, "Topic 360 – Property, Plant, and Equipment," certain asset groups are reviewed for impairment whenever events or changes in circumstances indicate the carrying amount of an asset group may not be recoverable in rates. Recoverability of asset groups to be held and used is measured by a comparison of the carrying amount of an asset group to estimated undiscounted future cash flows expected to be generated by the asset group. If the carrying amount of an asset group exceeds its estimated future cash flows, an impairment charge is recognized by the amount by which the carrying amount of the asset group exceeds the fair value of the asset.

Depreciation and amortization rates have been applied on a straight-line basis and at December 31, 2019 are as follows:

Annual Depreciation Rate Ranges

Steam production plant	3.03%	-	3.26%
Hydroelectric production plant	0.88%	-	2.71%
Other production plant	2.18%	-	3.46%
Transmission plant	1.01%	-	10.50%
Distribution plant	1.40%	-	10.00%
General plant	1.95%	-	33.33%
Other	2.75%	-	2.75%

On March 23, 2017, the RCA approved revised depreciation rates effective July 1, 2017 in Docket U-16-081(2). Chugach's depreciation rates include a provision for cost of removal. Chugach records a separate liability for the estimated obligation related to the cost of removal. Chugach records Depreciation, Depletion and Amortization ("DD&A") expense on the BRU assets based on units of production using the following formula: ten percent of the total production from the BRU as provided by the operator divided by ten percent of the estimated remaining proved reserves (in thousand cubic feet (Mcf)) in the field multiplied by Chugach's total assets in the BRU.

d. Full Cost Method

Chugach has elected the Full Cost method to account for exploration and development costs of gas reserves.

e. Asset Retirement Obligation ("ARO")

Chugach calculated and recorded an Asset Retirement Obligation associated with the BRU. Chugach uses its BRU financing rate as its credit adjusted risk free rate and the expected cash flow approach to calculate the fair value of the ARO liability. The ARO asset is depreciated using the DD&A formula previously discussed. The ARO liability is accreted using the interest method of allocation.

f. Investments in Associated Organizations

The loan agreement with National Rural Utilities Cooperative Finance Corporation ("NRUCFC") requires as a condition of the extension of credit, that an equity ownership position be established by all borrowers. Chugach's equity ownership in this organization is less than one percent. Chugach also has an equity ownership in CoBank, ACB ("CoBank") acquired in connection with prior loan agreements, which have since been repaid. Although we no longer have a patronage earning loan with CoBank, there remains an existing equity investment balance in this organization.

These equity investments do not have readily determinable fair values and are accounted for at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. No impairment or observable price changes were recorded during 2019, 2018 or 2017. Investments in associated organizations was $8.1 million and $8.6 million at December 31, 2019 and 2018, respectively.

g. Special Funds

Special funds includes deposits associated with the deferred compensation plan and an investment associated with the BRU ARO. The BRU ARO investment was established pursuant to an agreement with the State of Alaska and was $0.8 million and $0.5 million as of December 31, 2019 and 2018, respectively.

h. Cash, Cash Equivalents, and Restricted Cash Equivalents

The following table provides a reconciliation of cash, cash equivalents, and restricted cash equivalents reported within the Consolidated Balance Sheet that sum to the total of the same such amounts shown in the Consolidated Statements of Cash Flows.

	December 31, 2019		December 31, 2018	
Cash and cash equivalents	$	7,271,820	$	6,106,995
Restricted cash equivalents		1,244,155		1,213,974
Restricted cash equivalents included in other property and investments		108,000		108,000
Total cash, cash equivalents and restricted cash equivalents shown in the consolidated statements of cash flows	$	8,623,975	$	7,428,969

Restricted cash equivalents include funds on deposit for future workers' compensation claims. Restricted assets, including cash equivalents, are recognized on Chugach's Consolidated Balance Sheet when they are restricted as to withdrawal or usage.

i. Marketable Securities

Chugach's marketable securities consist of bond mutual funds, corporate bonds, and certificates of deposit with a maturity less than 12 months, classified as trading securities, reported at fair value with interest and dividend income and gains and losses in earnings. Interest and dividend income is included in nonoperating margins – interest income, and was $120.2 thousand and $403.4 thousand at December 31, 2019 and 2018, respectively. Net gains and losses on marketable securities are included in nonoperating margins – capital credits, patronage dividends and other, and for the twelve months ended December 31 are summarized as follows:

	2019		2018	
Net gains and (losses) recognized during the period on trading securities	$	98,655	$	(310,225)
Less: Net gains and (losses) recognized during the period on trading securities *sold* during the period		(108,173)		(161,485)
Unrealized gains and (losses) recognized during the reporting period on trading securities *still held* at the reporting date	$	206,828	$	(148,740)

j. Accounts Receivable

Trade accounts receivable are recorded at the invoiced amount. The allowance for doubtful accounts is management's best estimate of the amount of probable credit losses in existing accounts receivable. Chugach determines the allowance based on its historical write-off experience and current economic conditions. Chugach reviews its allowance for doubtful accounts monthly. Past due balances over 90 days in a specified amount are reviewed individually for collectability. All other balances are reviewed in aggregate. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. Chugach does not have any off–balance-sheet credit exposure related to its customers. Included in accounts receivable are invoiced amounts to ML&P for their proportionate share of current Southcentral Power Project ("SPP") costs, which amounted to $1.0 million and $1.4 million in 2019 and 2018, respectively.

k. Materials and Supplies

Materials and supplies are stated at average cost.

l. Fuel Stock

Fuel Stock is the weighted average cost of fuel injected into Cook Inlet Natural Gas Storage Alaska ("CINGSA"). Chugach's fuel balance in storage for the years ended December 31, 2019 and 2018 amounted to $12.3 million and $12.0 million, respectively.

m. Fuel and Purchased Power Cost Recovery

Expenses associated with electric services include fuel purchased from others and produced from Chugach's interest in the BRU, both of which are used to generate electricity, as well as power purchased from others. Chugach is authorized by the RCA to recover fuel and purchased power costs through the fuel and purchased power adjustment process, which is adjusted quarterly to reflect increases and decreases of such costs. We recognize differences between projected recoverable fuel costs and amounts actually recovered through rates. The fuel cost under/over recovery on our balance sheet represents the net accumulation of any under- or over-collection of fuel and purchased power costs. Fuel cost under-recovery will appear as an asset on our balance sheet and will be collected from our members in subsequent periods. Conversely, fuel cost over-recovery will appear as a liability on our balance sheet and will be refunded to our members in subsequent periods.

n. Deferred Charges and Liabilities

Included in deferred charges and liabilities on Chugach's financial statements are regulatory assets and liabilities recorded in accordance with FASB ASC 980. See *Note 8 – Deferred Charges and Liabilities*. Continued accounting under FASB ASC 980 requires that certain criteria be met. We capitalize all or part of costs that would otherwise be charged to expense if it is probable that future revenue in an amount at least equal to the capitalized cost will result from inclusion of that cost in allowable costs for ratemaking purposes and future revenue will be provided to permit recovery of the previously incurred cost. Management believes Chugach's operations currently satisfy these criteria.

Chugach's regulatory asset recoveries are embedded in base rates approved by the RCA. Specific costs incurred and recorded as Regulatory Assets, including the amortization period for recovery, are approved by the RCA either in standard Simplified Rate Filings ("SRF"), general rate case filings or specified independent requests. The rates approved related to the regulatory assets are matched to the amortization of actual expenses recognized. The regulatory assets are amortized and collected through rates over differing periods depending upon the period of benefit as established by the RCA. Deferred liabilities include refundable contributions in aid of construction, which are credited to the associated cost of construction of property units. Refundable contributions in aid of construction are held in deferred liabilities pending their return or other disposition. If events or circumstances should change so the criteria are not met, the write off of regulatory assets and liabilities could have a material effect on Chugach's financial position, results of operations or cash flows.

On December 29, 2016, Chugach made a prepayment of $7.9 million to the National Rural Electric Cooperative Association ("NRECA") Retirement and Security ("RS") Plan, which is included in deferred charges. Chugach recorded the long term prepayment in deferred charges and is amortizing the deferred charge to administrative, general and other expense, over 11 years, which represents the difference between the normal retirement age of 62 and the average age of Chugach's employees in the RS Plan. The balance of the prepayment in deferred charges at December 31, 2019 and 2018 was $5.8 million and $6.5 million, respectively.

o. Patronage Capital

Revenues in excess of current period costs (net operating margins and nonoperating margins) in any year are designated on Chugach's statement of operations as assignable margins. These excess amounts (i.e. assignable margins) are considered capital furnished by the members, and are credited to their accounts and held by Chugach until such future time as they are retired and returned without interest at the discretion of the Board of Directors ("Board"). Retained assignable margins are designated on Chugach's balance sheet as patronage capital. This patronage capital constitutes the principal equity of Chugach. The Board may also approve the return of capital to former members and estates who request early retirements at discounted rates under a discounted capital credits retirement plan authorized by the Board in September of 2002.

p. Consumer Deposits

Consumer deposits include amounts certain customers are required to deposit to receive electric service. Consumer deposits at December 31, 2019 and 2018, totaled $2.5 million and $3.0 million, respectively. Consumer deposits also represent customer credit balances as a result of prepaid accounts. Credit balances totaled $1.8 million at December 31, 2019 and 2018.

q. Fair Value of Financial Instruments

FASB ASC 825, "Topic 825 – Financial Instruments," requires disclosure of the fair value of certain on and off balance sheet financial instruments for which it is practicable to estimate that value. The following methods are used to estimate the fair value of financial instruments:

Cash, cash equivalents and restricted cash equivalents – the carrying amount approximates fair value because of the short maturity of those instruments.

Marketable securities – the carrying amount approximates fair value as changes in the market value are recorded monthly and gains or losses are reported in earnings (see note 2i and note 4).

Long-term obligations – the fair value estimate is based on the quoted market price for same or similar issues (see note 11).

Consumer deposits – the carrying amount approximates fair value because of the short refunding term.

The fair value of accounts receivable and payable, and other short-term monetary assets and liabilities approximate carrying value due to their short-term nature.

r. Operating Revenues

Revenues are recognized upon delivery of electricity and services. Energy sales revenues are Chugach's primary source of revenue and are recognized upon delivery of electricity. Wheeling revenue is recognized when energy is wheeled across Chugach's transmission lines. Other miscellaneous services are billed monthly as provided. Operating revenues are based on billing rates authorized by the RCA, which are applied to customers' usage of electricity. Chugach's rates are established, in part, on test period sales levels that reflect actual operating results. Chugach's tariffs include provisions for the recovery of gas costs according to gas supply contracts, as well as purchased power costs. For more information, see "*Note 17– Revenue From Contracts with Customers*."

s. Capitalized Interest

Allowance for funds used during construction ("AFUDC") and interest charged to construction - credit ("IDC") are the estimated costs of the funds used during the period of construction from both equity and borrowed funds. AFUDC and IDC are applied to specific projects during construction. AFUDC and IDC calculations use the net cost of borrowed funds when used and is recovered through RCA approved rates as utility plant is depreciated. For all projects Chugach capitalized such funds at the weighted average rate of 4.0% during 2019 and 4.1% during 2018 and 2017.

t. Environmental Remediation Costs

Chugach accrues for losses and establishes a liability associated with environmental remediation obligations when such losses are probable and can be reasonably estimated. Such accruals are adjusted as further information develops or circumstances change. Estimates of future costs for environmental remediation obligations are not discounted to their present value. However, various remediation costs may be recoverable through rates and accounted for as a regulatory asset.

u. Income Taxes

Chugach is exempt from federal income taxes under the provisions of Section 501(c)(12) of the Internal Revenue Code and for the years ended December 31, 2019, 2018 and 2017 was in compliance with that provision. In addition, as described in *Note (19) – "Commitments and Contingencies,"* Chugach collects sales tax and is assessed gross revenue and excise taxes which are presented on a net basis in accordance with FASB ASC 606-10-65, "Topic 606 - Revenue from Contracts with Customers."

Chugach applies a more-likely-than-not recognition threshold for all tax uncertainties. FASB ASC 740, "Topic 740 – Income Taxes," only allows the recognition of those tax benefits that have a greater than fifty percent likelihood of being sustained upon examination by the taxing authorities. Chugach's management reviewed Chugach's tax positions and determined there were no outstanding or retroactive tax positions that were not highly certain of being sustained upon examination by the taxing authorities.

Management has concluded that there are no significant uncertain tax positions requiring recognition in its financial statements for all periods presented. Chugach's evaluation was performed for the tax periods ended December 31, 2016 through December 31, 2019 for United States Federal Income Tax, the tax years which remain subject to examination by major tax jurisdictions as of December 31, 2019.

(3) Accounting Pronouncements

Issued, and adopted:

ASC Update 2016-02 "*Leases (Topic 842)*" and Related Updates

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)." ASU 2016-02, including related updates, amends guidance related to the recognition, measurement, presentation and disclosure of leases for lessors and lessees. Pursuant to the new standard, lessees will be required to identify all leases, including those embedded in contracts, classify leases as finance or operating, recognize all leases on the balance sheet and record corresponding right-of-use assets and lease liabilities. These updates require the recognition of lease assets and liabilities for those leases currently classified as operating leases while also refining the definition of a lease. Operating leases will reflect lease expense on a straight-line basis, while finance leases will result in the separate presentation of interest expense on the lease liability and amortization expense of the right-of-use asset. There is an optional transition practical expedient allowing entities to not evaluate under Topic 842 existing or expired land easements that were not previously accounted for as leases under the current lease guidance in Topic 840.

Topic 842 requires a modified retrospective transition, with the cumulative effect of transition, including initial recognition by lessees of lease assets and liabilities for existing operating leases, as of either the effective date, or the beginning of the earliest period presented. Under the effective date method, the entity's comparative reporting period is unchanged. Comparative reporting periods are presented in accordance with Topic 840, while periods subsequent to the effective date are presented in accordance with Topic 842. Chugach elected to use the effective date method.

The standard includes certain practical expedients intended to ease the burden of adoption on preparers. Chugach elected each of the following practical expedients:

1) Package of Practical expedients (all or nothing) - An entity may elect not to reassess: a) whether expired or existing contracts contain leases under the new definition of a lease, b) lease classification for expired or existing leases and c) whether previously capitalized initial direct costs would qualify for capitalization under Topic 842.
2) Use of hindsight - An entity may use hindsight in determining the lease term, and in assessing the likelihood that a lease purchase option will be exercised.
3) Land easements - An entity may elect not to reassess whether land easements meet the definition of a lease if they were not accounted for as leases prior to adoption of Topic 842 until they expire, unless they are modified on or after the effective date.

A lessee may elect not to separate the non-lease components of a contract from the lease component to which they relate. This means that the components will be treated as a single lease component. The lessee elects this practical expedient by class of underlying asset – for example: office equipment, automobiles, office space. Chugach elected this practical expedient for all classes of underlying assets.

Chugach elected not to recognize right-of-use assets and lease liabilities that arise from short-term leases (those with a term of less than twelve months) for any class of underlying asset.

Chugach began application of ASU 2016-02 and related updates on January 1, 2019. Adoption did not have a material effect on our results of operations, financial position, and cash flows. See "*Note 8 – LEASES*."

Issued, not yet adopted:

ASC Update 2016-13 "*Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*" and Related Updates

In June 2016, the FASB issued ASC Update 2016-13, "Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." ASC Update 2016-13 revised the criteria for the measurement, recognition, and reporting of credit losses on financial instruments to be recognized when expected. This update is effective for fiscal years beginning after December 15, 2019, including the interim periods within those years, with early adoption permitted for fiscal years beginning after December 15, 2018, including interim periods within those years. Chugach began application of ASC 2016-13 on January 1, 2020. Adoption did not have a material effect on our results of operations, financial position, and cash flows.

ASC Update 2018-13 "*Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*"

In August 2018, the FASB issued ASU 2018-13, "Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement." ASU 2018-13 changes the fair value measurement disclosure requirements of ASC 820. This update is effective for all entities for fiscal years beginning after December 15, 2019, including interim periods therein. Early adoption is permitted for any eliminated or modified disclosures upon issuance of this ASU. Chugach began application of ASU 2018-13 on January 1, 2020. Adoption did not have a material effect on our results of operations, financial position, and cash flows.

ASC Update 2018-14 "*Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20): Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans"*

In August 2018, the FASB issued ASU 2018-14, "Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20): Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans." ASU 2018-14 modifies ASC 715-20 to improve disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. The ASU is effective for fiscal years ending after December 15, 2020, for public companies. Early adoption is permitted. Chugach will begin application of ASU 2018-14 on January 1, 2021. Adoption is not expected to have a material effect on our results of operations, financial position, and cash flows.

ASC Update 2018-15 "*Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract (a consensus of the FASB Emerging Issues Task Force)"*

In August 2018, the FASB issued ASU 2018-15, "Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract." ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The ASU is effective for public business entities for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. Early adoption is permitted. Chugach began application of ASU 2018-15 on January 1, 2020. Adoption did not have a material effect on our results of operations, financial position, and cash flows.

(4) Fair Value of Assets and Liabilities

Fair Value Hierarchy

In accordance with FASB ASC 820, Chugach groups its financial assets and liabilities measured at fair value in three levels, based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine fair value. These levels are:

Level 1 – Valuation is based upon quoted prices for identical instruments traded in active exchange markets, such as the New York Stock Exchange. Valuations are obtained from readily available pricing sources for market transactions involving identical assets or liabilities.

Level 2 – Valuation is based upon quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market.

Level 3 – Valuation is generated from model-based techniques that use significant assumptions not observable in the market. These unobservable assumptions reflect Chugach's estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques include use of option pricing models, discounted cash flow models and similar techniques.

The table below presents the balance of Chugach's marketable securities measured at fair value on a recurring basis at December 31, 2019 and 2018. Chugach's bond mutual funds are measured using quoted prices in active markets. Chugach had no other assets or liabilities measured at fair value on a recurring basis at December 31, 2019 or 2018.

December 31, 2019	Total	Level 1	Level 2	Level 3
Bond mutual funds	$ 194,183	$ 194,183	$ 0	$ 0

December 31, 2018	Total	Level 1	Level 2	Level 3
Bond mutual funds	$ 6,316,583	$ 6,316,583	$ 0	$ 0

Fair Value of Financial Instruments

Fair value estimates are dependent upon subjective assumptions and involve significant uncertainties resulting in variability in estimates with changes in assumptions. The fair value of cash and cash equivalents, accounts receivable and payable, and other short-term monetary assets and liabilities approximate carrying value due to their short-term nature.

The estimated fair values of long-term obligations included in the financial statements at December 31, 2019, are as follows:

	Carrying Value	Fair Value Level 2
Long-term obligations (including current installments)	$ 507,389	$ 541,573

(5) Regulatory Matters

Gas Dispatch Agreement

In 2016, Chugach and MEA entered into an agreement entitled, "Gas Dispatch Agreement" in which Chugach provides gas scheduling and dispatch services to MEA. This agreement, which has been extended several times, was due to expire March 31, 2020. On December 31, 2019, Chugach submitted a request to the RCA to further extend the agreement for a 36-month period with an annual price adjustment escalator beginning April 1, 2021. The Gas Dispatch Agreement was approved by the RCA on February 7, 2020, and the agreement will remain in effect through March 31, 2023.

Fourth Amendment to Hilcorp Agreement

On July 1, 2013, Chugach and Hilcorp entered into a Gas Sales and Purchase Agreement ("GSPA"). In September 2013, the RCA approved the GSPA and allowed Chugach to recover all costs of the agreement (including gas purchases, transportation and storage costs) through the fuel and purchased power cost adjustment process. The initial term was effective through March 31, 2018. The First, Second and Third Amendments extended the contractual terms, established more efficient payment procedures, and updated notice provisions.

Chugach submitted a Fourth Amendment to the RCA on January 17, 2020, which extends the term through March 31, 2028, and provides additional annual quantities of 3.7 Bcf starting April 1, 2023, through March 31, 2028. In relation to the price structure in the Third Amendment, the Fourth Amendment reduces the price per Mcf from $7.56 to $7.49 effective April 1, 2020, from $7.80 to $7.55 effective April 1, 2021, and from $7.96 to $7.61 effective April 1, 2023. In addition, the Fourth Amendment provides extensive gas purchase flexibility from call option provisions that, if executed, extends to additional gas on a daily, monthly, and annual contract quantity basis through 2028. On February 28, 2020, the RCA approved the Fourth Amendment effective March 6, 2020.

Simplified Rate Filing

Chugach is a participant in the Simplified Rate Filing ("SRF") process for adjustments to base demand and energy rates for Chugach retail customers and wholesale customer, Seward. SRF is an expedited base rate adjustment process available to electric cooperatives in the State of Alaska, with filings made either on a quarterly or semi-annual basis. Chugach is a participant on a quarterly filing schedule basis. Chugach is required to submit filings to the RCA for approval before any rate changes can be implemented. While there is no limitation on decreases, base rate increases under SRF are limited to 8% in a 12-month period and 20% in a 36-month period.

Chugach submitted quarterly SRFs which resulted in a system demand and energy rate increases of 2.7% effective November 1, 2018; 0.7% effective February 1, 2019; 1.0% effective May 1, 2019; 2.5% effective August 1, 2019; 3.8% effective November 1, 2019; and 0.4% effective February 1, 2020.

Operation and Regulation of the Alaska Railbelt Electric and Transmission System

In June 2016, the RCA opened a docket to "evaluate the reliability and security standards and practices of Alaska Electric Utilities." In 2017, Chugach and several other Alaska Railbelt utilities entered into a contract with GDS Associates, Inc. ("GDS"). GDS's role was to facilitate discussions between all six Alaska Railbelt utilities and various stakeholders with a goal of submitting to the RCA organizational plans for a Railbelt Reliability Council ("RRC"), including a governance structure, that will be responsible for adoption and enforcement of uniform reliability standards and integrated transmission resource planning. GDS presented to the RCA during two technical conferences in January and March of 2018. Chugach and the other utilities provided GDS's final recommendation of the RRC to the RCA in May 2018. During the fourth quarter of 2018, the utilities reviewed and adapted the memorandum of understanding with GDS ("GDS MOU").

In addition, and working in parallel, the utilities and American Transmission Corporation (ATC) were in discussions regarding the formation of a transmission-only utility. ATC, GVEA, HEA, ML&P, and Seward Electric System collectively, d/b/a Alaska Railbelt Transmission Co. ("ART") filed with the RCA for a Railbelt-wide Transco Certificate of Public Convenience and Necessity ("CPCN") on February 25, 2019.

At that time, Chugach's primary focus was on filing with the RCA for transfer of the ML&P CPCN to Chugach and we were unable to complete due diligence on the Transco filing prior to its submittal to the RCA. Neither Chugach nor MEA were a party to ART's filing.

On March 15, 2019, the RCA issued an order requesting comments on proposed legislative language which would authorize the RCA to designate or develop an Electric Reliability Organization ("ERO"). Chugach submitted comments seeking to delay adoption until the RRC Governance Board could be formed but continued to work with the RCA, Railbelt utilities and stakeholders to draft acceptable legislation. Subsequently, Chugach completed its review of the ART filing, determined the model not to be in the best interest of our membership; and therefore, declined to participate in the ART Transco. Following Chugach's decision not to participate, ART withdrew its filing from the RCA.

Chugach and the members of the Alaska Railbelt Cooperative Transmission and Electric Company ("ARCTEC") continue to work with the other utilities and stakeholders to arrive at legislation and an RRC organization acceptable to all Railbelt utilities and stakeholders.

In June 2016, in response to RCA Docket I-16-002, Railbelt Utility Information Technology and Operations Technology leadership began meeting to discuss Railbelt Cybersecurity. The Railbelt Utilities Managers group designated the Cybersecurity Working Group to review industry standards and provide a statement of work to develop Railbelt Cybersecurity Standards. On June 21, 2018, Chugach posted a Request for Proposal to hire a consultant to draft the standards. The final draft was presented to the Railbelt Utility Managers on February 15, 2019. On July 10, 2019, a status update was provided to the RCA by the Railbelt Utility Managers announcing the completion of Alaska Critical Infrastructure Protection ("AKCIP") Cybersecurity Standards and a collective agreement for adoption effective January 1, 2020. Implementation schedules are contained in the specific standards.

In December 2019, the Railbelt utilities signed a Memorandum of Understanding to form a RRC. Alaska Senate Bill 123 ("SB 123"), which is currently being considered in the Alaska State Legislature, provides for the creation and regulation of an electric reliability organization. The utilities are continuing to work with the legislature to refine the language in SB 123.

ML&P Acquisition

In December 2017, the Mayor of Anchorage, Alaska, announced plans to place a proposition on the April 3, 2018 municipal ballot allowing the voters to authorize the sale of ML&P to Chugach. The proposition was approved by Anchorage voters 65.08% to 34.92% per the certified election results. Chugach and the Municipality of Anchorage ("MOA") negotiated final sales agreements and associated documents. The sale of ML&P was approved by the Anchorage Assembly on December 4, 2018 and the Chugach Board of Directors gave its final approval on December 19, 2018. The agreements and associated documents were executed on December 28, 2018. Pursuant to these agreements and associated documents, on April 1, 2019, Chugach submitted the Joint Request for Necessary Approvals to Acquire Anchorage Municipal Light and Power, and the Petition for Approvals Needed to Acquire Anchorage Municipal Light and Power and Application to Amend Certificate of Public Convenience and Necessity No. 8 to the RCA. The RCA accepted the filing as complete on April 18, 2019, and the procedural conference was held on April 22, 2019. On May 8, 2019, the RCA issued an order indicating that a final order in the case was expected by November 19, 2019. In addition, the RCA granted the petitions to intervene filed by MEA, Providence Health and Services ("Providence"), GVEA, the Federal Executive Agencies ("FEA"), and HEA/Alaska Electric and Energy Cooperative, Inc. Hearings on the acquisition were held in August and September 2019.

In June 2019, Chugach and GVEA entered into a Memorandum of Understanding ("MOU") in which Chugach agreed to provide GVEA non-firm energy, wheeling and ancillary services for a 3-year period under terms and conditions consistent with its operating tariff, and will make available 5 MW of Bradley Lake capacity to GVEA for a 5-year period. Excluding fuel, the MOU is expected to provide over $10 million of additional revenue to Chugach's system over the term of the agreement. GVEA has withdrawn its petition to intervene regarding the ML&P acquisition.

On September 27, 2019 Chugach entered into Amendment No 1 to Asset Purchase agreement ("APA Amendment No. 1"), Amendment No. 1 to Payment in Lieu of Taxes Agreement ("PILT Amendment No. 1"), and Amendment No. 1 to Eklutna Power Purchase Agreement ("PPA Amendment No. 1") with the MOA. The APA Amendment No. 1 provides that the purchase price shall reflect the net book value of ML&P assets at closing and amends related definitions. The PILT Amendment No. 1 revises the calculation of PILT to make it consistent with APA Amendment No. 1 and the PPA Amendment No. 1 defines the Eklutna PPA as a wholesale power agreement.

On October 28, 2019, Chugach, ML&P, Providence, FEA, MEA, Alaska Energy Authority, and ENSTAR Natural Gas Company, a Division of SEMO Energy Inc., filed a stipulation with the RCA resolving all disputed issues in these consolidated dockets ("Stipulation"). The State of Alaska Office of the Attorney General, Regulatory Affairs and Public Advocacy Section is not a party to the Stipulation.

On October 28, 2019, Chugach entered into Amendment No. 2 to Asset Purchase and Sale Agreement ("APA Amendment No. 2"), Amendment No. 2 to Eklutna Power Purchase Agreement ("PPA Amendment No. 2"), and Amendment No. 2 to Payment in Lieu of Taxes Agreement ("PILT Amendment No. 2") with the MOA. The APA Amendment No. 2 extends the termination date of the APA from March 31, 2020, to September 30, 2020 and recognizes the Eklutna Transmission Assets as Acquired Assets in recognition of the fulfillment of a condition in the original APA. The PPA Amendment No. 2 recognizes changes to the dispute resolution procedures contained therein and the PILT Amendment No. 2 removes Chugach's obligation in certain regulatory or bankruptcy proceedings to support and stipulate to the fact that the payment in lieu of taxes payments are a tax obligation and should be given appropriate priority status based on that fact.

Amendment No. 3 to Asset Purchase Agreement ("APA Amendment No. 3"), Amendment No. 3 to Eklutna Power Purchase Agreement ("PPA Amendment No. 3"), and an Amended and Restated BRU Fuel Agreement were approved by the Chugach Board on October 24, 2019, and by the MOA Assembly on October 30, 2019, and will become effective upon RCA approval. APA Amendment No. 3 reduces the upfront payment to the MOA by $10.0 million, eliminates upward price adjustments if ML&P's net book value of the purchased assets is greater than $715.4 million at closing, and recognizes a $36.0 million rate reduction account to be funded by the MOA for the benefit of ML&P legacy customers. PPA Amendment No. 3 recognizes Chugach's right to set-off payments to the extent the MOA does not fulfill its obligations required in the Stipulation. The amended BRU fuel agreement extends the period over which the costs and benefits of Chugach's and ML&P's legacy shares of BRU will be allocated to customers in each legacy service area, requires Chugach to utilize a market proxy value for legacy share BRU gas used for economy energy sales, and requires Chugach to utilize a market proxy value for any legacy share BRU gas used to serve Chugach legacy customers for transactions between the legacy service areas of Chugach and ML&P.

The statutory timeline for issuance of a final order and to rule on the Stipulations was extended until February 28, 2020. On February 27, 2020, the RCA issued an order extending the statutory timeline and extended the time to consider the Stipulations to May 28, 2020. For more information concerning the potential ML&P Acquisition, see "*Note 16 – ML&P Acquisition.*"

(6) Utility Plant

Major classes of utility plant, net of contributions in aid of construction, as of December 31 are as follows:

Electric plant in service:	2019	2018
Steam production plant	$ 101,141,201	$ 101,141,201
Hydroelectric production plant	34,362,228	34,342,490
Other production plant	288,086,243	288,086,243
Transmission plant	298,211,033	298,767,612
Distribution plant	333,594,738	328,766,590
General plant	58,614,421	55,308,981
Unclassified electric plant in service[1]	71,941,610	54,877,480
Intangible plant[1]	6,148,200	5,455,371
Beluga River Natural Gas Field (BRU Asset & ARO)	48,595,009	48,088,715
Other[1]	1,828,409	1,828,409
Total electric plant in service	1,242,523,092	1,216,663,092
Construction work in progress	16,966,608	17,272,307
Total electric plant in service and construction work in progress	$ 1,259,489,700	$ 1,233,935,399

[1] Unclassified electric plant in service consists of complete unclassified general plant, generation plant, transmission plant and distribution plant. Depreciation of unclassified electric plant in service has been included in functional plant depreciation accounts in accordance with the anticipated eventual classification of the plant investment. Intangible plant represents Chugach's share of a Bradley Lake transmission line financed internally. Other represents Electric Plant Held for Future Use.

(7) Investments in Associated Organizations

Investments in associated organizations include the following at December 31:

	2019	2018
NRUCFC Capital Term Certificates	$ 6,095,980	$ 6,095,980
CoBank	1,991,094	2,405,407
Other	61,352	68,659
Total investments in associated organizations	$ 8,148,426	$ 8,570,046

(8) Deferred Charges and Liabilities

Deferred Charges

Regulatory assets and deferred charges, net of amortization, consisted of the following at December 31:

	2019	2018
Regulatory assets and deferred charges:		
Short-term debt issuance and reacquisition costs	$ 713,681	$ 280,933
Refurbishment of transmission equipment	77,161	86,420
Feasibility studies	179,830	194,122
Cooper Lake relicensing / projects	4,889,698	5,019,801
Fuel supply	1,610,498	1,702,759
Storm damage	64,738	258,952
Other regulatory deferred charges	262,508	471,558
Bond interest - market risk management	3,999,873	4,429,478
Environmental matters	888,118	933,469
Beluga parts and materials	7,986,500	9,341,355
Beluga Unit 3 major overhaul	1,246,195	2,726,259
Cooper Lake dredging	156,638	618,301
NRECA pension plan prepayment	5,763,673	6,484,132
ML&P acquisition & integration	18,041,341	4,953,291
Green Energy Program	0	46,577
Community Solar Project	0	121,017
Total regulatory assets and deferred charges	$ 45,880,452	$ 37,668,424

Regulatory assets and deferred charges, not currently being recovered in rates charged to consumers, consisted of the following at December 31:

	2019	2018
Regulatory assets and deferred charges		
Cooper Lake Dredging	$ 0	$ 618,301
Regulatory studies and other	2,992	35,575
ML&P Acquisition & Integration	18,041,341	4,953,291
Green Energy Program	0	46,577
Community Solar Project	0	121,017
Total regulatory assets and deferred charges	$ 18,044,333	$ 5,774,761

We believe all regulatory assets and deferred charges not currently being recovered in rates charged to consumers are probable of recovery in the future based upon prior recovery of similar costs allowed by our regulator. The recovery of regulatory assets and deferred charges is approved by the RCA either in standard SRFs, general rate case filings or specified independent requests. In most cases, deferred charges are recovered over the life of the underlying asset.

Deferred Liabilities

Deferred liabilities, at December 31 consisted of the following:

		2019		2018
Refundable consumer advances for construction	$	485,081	$	357,858
Estimated initial installation costs for meters		91,089		79,276
Post retirement benefit obligation		327,700		327,700
Total deferred liabilities	$	903,870	$	764,834

(9) Patronage Capital

Chugach has a Board-approved capital credit retirement policy, which is contained in Chugach's financial forecast. This establishes, in general, a plan to return the capital credits of wholesale and retail customers based on the members' proportionate contribution to Chugach's assignable margins. At December 31, 2019, Chugach had $177,380,964 of patronage capital (net of capital credits retired in 2019), which included $172,261,336 of patronage capital that had been assigned and $5,119,627 of patronage capital to be assigned to its members. At December 31, 2018, Chugach had $177,823,597 of patronage capital (net of capital credits retired in 2018), which included $172,460,724 of patronage capital that had been assigned and $5,362,874 of patronage capital to be assigned to its members. Approval of actual capital credit retirements is at the discretion of the Chugach Board of Directors ("Board"). Chugach records a liability when the retirements are approved by the Board.

Chugach entered into an agreement with HEA to return all of its patronage capital within five years after expiration of its power sales agreement, which was December 31, 2013. This agreement was related to a settlement agreement associated with the 2005 Test Year General Rate Case (Docket U-06-134). The RCA accepted the parties' settlement agreement on August 9, 2007. We finalized a new agreement with HEA in September 2017 which spread their retirement payments between 2017 and 2020 in increments of $2.0 million annually. As a result, $2.0 million of HEA's patronage capital was retired and paid in 2019 and in 2018. HEA's patronage capital payable, including the current portion classified as other current liabilities, was $1.9 million and $3.9 million at December 31, 2019 and 2018, respectively.

In an agreement reached in May 2014 with MEA, capital credits retired to MEA were classified as patronage capital payable on Chugach's balance sheet. In April 2019, Chugach paid MEA the balance of MEA's patronage capital payable, therefore MEA had no patronage capital payable at December 31, 2019. At December 31, 2018, MEA's patronage capital payable was $1.5 million.

The Second Amended and Restated Indenture of Trust ("Indenture") and the CoBank Second Amended and Restated Master Loan Agreement, as amended, prohibit Chugach from making any distribution of patronage capital to Chugach's customers if an event of default under the Indenture or debt agreements exists. Otherwise, Chugach may make distributions to Chugach's members in each year equal to the lesser of 5% of Chugach's patronage capital or 50% of assignable margins for the prior fiscal year. This restriction does not apply if, after the distribution, Chugach's aggregate equities and margins as of the end of the immediately preceding fiscal quarter are equal to at least 30% of Chugach's total long-term debt and equities and margins. In March 2019, our Board authorized capital credit retirements to MEA and SES in the amount of $4.9 million. In April 2019, our Board authorized payments to HEA and MEA of $2.0 million and $6.1 million, respectively. There were only capital credit retirement payments authorized by our Board in 2018. During 2017, our Board authorized a capital credit retirement, less early retirements, of $2,631,928. With the exception of HEA's patronage capital payable, there was no outstanding liability for capital credits authorized but not paid at December 31, 2019 or 2018, and $57,036 was outstanding at December 31, 2017.

(10) Other Equities

A summary of other equities at December 31 follows:

	2019	2018
Nonoperating margins, prior to 1967	$ 23,625	$ 23,625
Donated capital	2,780,265	2,407,898
Unclaimed capital credit retirement[1]	12,505,467	12,521,402
Total other equities	$ 15,309,357	$ 14,952,925

[1]Represents unclaimed capital credits that have met all requirements of Alaska Statute section 34.45.200 regarding Alaska's unclaimed property law and have therefore reverted to Chugach.

(11) Debt

Long-term obligations at December 31 are as follows:	2019	2018
2011 Series A Bond of 4.20%, maturing in 2031, with interest payable semi-annually March 15 and September 15 and principal due annually beginning in 2012	54,000,000	58,500,000
2011 Series A Bond of 4.75%, maturing in 2041, with interest payable semi-annually March 15 and September 15 and principal due annually beginning in 2012	135,666,664	141,833,331
2012 Series A Bond of 4.01%, maturing in 2032, with interest payable semi-annually March 15 and September 15 and principal due annually beginning in 2013	48,750,000	52,500,000
2012 Series A Bond of 4.41%, maturing in 2042, with interest payable semi-annually March 15 and September 15 and principal due annually between 2013 and 2020 and between 2032 and 2042	74,000,000	81,000,000
2012 Series A Bond of 4.78%, maturing in 2042, with interest payable semi-annually March 15 and September 15 and principal due annually beginning in 2023	50,000,000	50,000,000
2017 Series A Bond of 3.43%, maturing in 2037, with interest payable semi-annually March 15 and September 15 and principal due annually beginning in 2018	36,000,000	38,000,000
2019 Series A Bond of 3.86%, maturing in 2049, with interest payable semi-annually May 15 and November 15 and principal due annually beginning in 2021	75,000,000	0
2016 CoBank Note, 2.58% fixed rate note maturing in 2031, with interest and principal due quarterly beginning in 2016	33,972,000	37,164,000
Total long-term obligations	$ 507,388,664	$ 458,997,331
Less current installments	26,836,667	26,608,667
Less unamortized debt issuance costs	2,684,537	2,425,247
Long-term obligations, excluding current installments	$ 477,867,460	$ 429,963,417

Covenants

Chugach is required to comply with all covenants set forth in the Indenture that secures the 2011, 2012, 2017 and 2019 Series A Bonds, and the 2016 CoBank Note. The CoBank Note is governed by the Second Amended and Restated Master Loan Agreement, as amended, which is secured by the Indenture dated January 20, 2011.

Chugach is also required to comply with the 2016 Credit Agreement, as amended between Chugach and NRUCFC, KeyBank National Association, Bank of America, N.A., Wells Fargo Bank N.A., and CoBank, ACB dated July 30, 2019, governing loans and extensions of credit associated with Chugach's commercial paper program, in an aggregate principal amount not exceeding $300.0 million at any one time outstanding.

Chugach is also required to comply with other covenants set forth in the Revolving Line of Credit Agreement with NRUCFC.

Security

The Indenture, which became effective on January 20, 2011, imposes a lien on substantially all of Chugach's assets to secure Chugach's long-term debt obligations. Assets that are generally not subject to the lien of the Indenture include cash (other than cash deposited with the indenture trustee); instruments and securities; patents, trademarks, licenses and other intellectual property; vehicles and other movable equipment; inventory and consumable materials and supplies; office furniture, equipment and supplies; computer equipment and software; office leases; other leasehold interests for an original term of less than five years; contracts (other than power sales agreements with members having an original term exceeding three years, certain contracts specifically identified in the indenture, and other contracts relating to the ownership, operation or maintenance of generation, transmission or distribution facilities); non-assignable permits, licenses and other contract rights; timber and minerals separated from land; electricity, gas, steam, water and other products generated, produced or purchased; other property in which a security interest cannot legally be perfected by the filing of a Uniform Commercial Code financing statement, and certain parcels of real property specifically excepted from the lien of the Indenture. The lien of the Indenture may be subject to various permitted encumbrances that include matters existing on the date of the Indenture or the date on which property is later acquired; reservations in United States patents; non-delinquent or contested taxes, assessments and contractors' liens; and various leases, rights-of-way, easements, covenants, conditions, restrictions, reservations, licenses and permits that do not materially impair Chugach's use of the mortgaged property in the conduct of Chugach's business.

Rates

The Indenture also requires Chugach, subject to any necessary regulatory approval, to establish and collect rates reasonably expected to yield margins for interest equal to at least 1.10 times total interest expense. If there occurs any material change in the circumstances contemplated at the time rates were most recently reviewed, the Indenture requires Chugach to seek appropriate adjustment to those rates so that they would generate revenues reasonably expected to yield margins for interest equal to at least 1.10 times interest charges, provided, however, upon review of rates based on a material change in circumstances, rates are required to be revised in order to comply and there are less than six calendar months remaining in the current fiscal year, Chugach can revise its rates so as to reasonably expect to meet the covenant for the next succeeding 12-month period after the date of any such revision.

The Second Amended and Restated Master Loan Agreement with CoBank, which became effective on June 30, 2016, as amended November 26, 2019, also requires Chugach to establish and collect rates reasonably expected to yield margins for interest equal to at least 1.10 times interest expense.

The 2016 Credit Agreement governing the unsecured facility providing liquidity for Chugach's commercial paper program requires Chugach to maintain minimum margins for interest of at least 1.10 times interest charges for each fiscal year. Margins for interest generally consist of

Chugach's assignable margins plus total interest expense, excluding amounts capitalized. Additionally, Chugach must maintain a minimum Consolidated Margins and Equities balance of $150 million, excluding any unrealized gain or loss on any Hedging Agreement, for each fiscal quarter and fiscal year-end.

Distributions to Members

Under the Indenture and debt agreements, Chugach is prohibited from making any distribution of patronage capital to Chugach's customers if an event of default under the Indenture or debt agreements exists. Otherwise, Chugach may make distributions to Chugach's members in each year equal to the lesser of 5% of Chugach's patronage capital or 50% of assignable margins for the prior fiscal year. This restriction does not apply if, after the distribution, Chugach's aggregate equities and margins as of the end of the immediately preceding fiscal quarter are equal to at least 30% of Chugach's total long-term debt and equities and margins.

Maturities of Long-term Obligations

Long-term obligations at December 31, 2019, mature as follows:

Year ending December 31	2011 Series A Bonds	2012 Series A Bonds	2016 CoBank Note	2017 Series A Bonds	2019 Series A Bonds	Total
2020	$ 10,666,667	$ 10,750,000	$ 3,420,000	$ 2,000,000	$ 0	$ 26,836,667
2021	10,666,667	3,750,000	3,648,000	2,000,000	3,900,000	23,964,667
2022	10,666,667	3,750,000	3,876,000	2,000,000	3,900,000	24,192,667
2023	10,666,667	6,250,000	4,104,000	2,000,000	3,900,000	26,920,667
2024	10,666,667	6,250,000	4,104,000	2,000,000	3,900,000	26,920,667
Thereafter	136,333,329	142,000,000	14,820,000	26,000,000	59,400,000	378,553,329
	$ 189,666,664	$ 172,750,000	$ 33,972,000	$ 36,000,000	$ 75,000,000	$ 507,388,664

Lines of credit

Chugach maintains a $50.0 million line of credit with NRUCFC. Chugach did not utilize this line of credit in 2019 or 2018, and therefore had no outstanding balance at December 31, 2019 and 2018. The borrowing rate is calculated using the total rate per annum and may be fixed by NRUCFC. The borrowing rate was 3.25% and 3.75% at December 31, 2019 and 2018, respectively.

The NRUCFC Revolving Line Of Credit Agreement requires that Chugach, for each 12-month period, for a period of at least five consecutive days, pay down the entire outstanding principal balance. The NRUCFC line of credit was renewed effective September 29, 2017, and expires September 29, 2022. This line of credit is immediately available for unconditional borrowing.

Commercial Paper

On June 13, 2016, Chugach entered into a $150.0 million senior unsecured credit facility ("Credit Agreement"), which is used to back Chugach's commercial paper program. The pricing included an all-in drawn spread of one month LIBOR plus 90.0 basis points, along with a 10.0 basis points facility fee (based on an A/A2/A unsecured debt rating). The Credit Agreement was due to expire on June 13, 2021. The participating banks included NRUCFC, KeyBank National Association, Bank of America, N.A., and CoBank, ACB.

On July 30, 2019, Chugach entered into the First Amendment to the Credit Agreement ("Amendment") with NRUCFC, Bank of America, N.A., KeyBank National Association, Wells Fargo Bank N.A., and CoBank, ACB. The Amendment increases the lenders' aggregate commitments under the senior unsecured credit facility from $150 million to $300 million and extends the maturity date of the facility from June 13, 2021, to July 30, 2024. The Amendment also includes provisions for calculating the interest on loans in ways other than the LIBOR. In addition, the Amendment permits Chugach to enter into a bridge financing to fund its pending acquisition of ML&P, of not in excess of $800 million for a term of up to eighteen (18) months. This indebtedness is in addition to other indebtedness permitted to be incurred under the existing credit facility. Other terms of the credit agreement remain materially the same.

Our commercial paper can be repriced between one day and 397 days. Chugach is expected to continue to issue commercial paper in 2020, as needed.

Chugach had $24.0 million and $61.0 million of commercial paper outstanding at December 31, 2019 and 2018, respectively.

The following table provides information regarding 2019 monthly average commercial paper balances outstanding (dollars in millions), as well as corresponding weighted average interest rates:

Month	Average Balance	Weighted Average Interest Rate	Month	Average Balance	Weighted Average Interest Rate
January	$ 56.8	2.81%	July	$ 8.5	2.61%
February	$ 55.2	2.77%	August	$ 7.8	2.42%
March	$ 72.8	2.77%	September	$ 12.1	2.54%
April	$ 83.4	2.77%	October	$ 15.5	2.16%
May	$ 45.2	2.74%	November	$ 16.1	1.89%
June	$ 8.0	2.65%	December	$ 20.5	1.92%

Financing

In January 2011, Chugach issued $275.0 million of First Mortgage Bonds, 2011 Series A, in two tranches, Tranche A and Tranche B, for the purpose of refinancing the 2001 and 2002 Series A Bonds in 2011 and 2012, and for general corporate purposes. Interest is paid semi-annually on March 15 and September 15 commencing on September 15, 2011. Principal on the 2011 Series A Bonds is paid in equal annual installments beginning March 15, 2012.

In January 2012, Chugach issued $250.0 million of First Mortgage Bonds, 2012 Series A, in three tranches, Tranche A, Tranche B and Tranche C, for the purpose of repaying outstanding commercial paper used to finance SPP construction and for general corporate purposes. Interest is paid semi-annually March 15 and September 15 commencing on September 15, 2012. The 2012 Series A Bonds, Tranche A and Tranche C, pay principal in equal installments on an annual basis beginning March 15, 2013, and 2023, respectively. The 2012 Series A Bonds, Tranche B, pay principal beginning March 15, 2013, through 2020, and on March 15, 2032, through 2042.

In June 2016, Chugach entered into a term loan facility with CoBank, evidenced by the 2016 CoBank Note, which is governed by the Second Amended and Restated Master Loan Agreement dated June 30, 2016, amended November 26, 2019, and secured by the Indenture.

In March 2017, Chugach issued $40.0 million of First Mortgage Bonds, 2017 Series A for general corporate purposes. Interest is paid semi-annually on March 15 and September 15, commencing on September 15, 2017. The 2017 Series A Bonds pay principal in equal installments on an annual basis beginning March 15, 2018.

On May 15, 2019, Chugach issued $75.0 million of First Mortgage Bonds, 2019 Series A, for the purpose of repaying outstanding commercial paper used to finance Chugach's capital improvement program and for general corporate purposes. Interest is paid semi-annually on May 15 and November 15, commencing on November 15, 2019. The 2019 Series A Bonds pay principal in equal installments on an annual basis beginning on May 15, 2021. The bonds and all other long-term debt obligations are secured by a lien on substantially all of Chugach's assets, pursuant to the Indenture, which became effective on January 20, 2011, as previously amended and supplemented.

The following table provides additional information regarding the 2011 Series A, 2012 Series A, 2017 Series A, and 2019 Series A bonds and the 2016 CoBank Note at December 31, 2019 (dollars in thousands):

	Maturing	Average Life (Years)	Interest Rate	Issue Amount	Carrying Value
2011 Series A, Tranche A	2031	5.7	4.20 %	$ 90,000	$ 54,000
2011 Series A, Tranche B	2041	10.7	4.75 %	185,000	135,667
2012 Series A, Tranche A	2032	6.2	4.01 %	75,000	48,750
2012 Series A, Tranche B	2042	15.7	4.41 %	125,000	74,000
2012 Series A, Tranche C	2042	12.7	4.78 %	50,000	50,000
2017 Series A, Tranche A	2037	8.7	3.43 %	40,000	36,000
2019 Series A, Tranche A	2049	11.4	3.86 %	75,000	75,000
2016 CoBank Note	2031	4.6	2.58 %	45,600	33,972
Total				$ 685,600	$ 507,389

(12) Employee Benefit Plans

Pension Plans

Pension benefits for substantially all of Chugach's union employees are provided through the Alaska Electrical Pension Trust Fund and the UNITE HERE National Retirement Fund, multiemployer plans. Chugach pays an hourly amount per eligible union employee pursuant to the collective bargaining unit agreements. In these master, multiemployer plans, the accumulated benefits and plan assets are not determined or allocated separately to the individual employer.

Pension benefits for non-union employees are provided by the National Rural Electric Cooperative Association ("NRECA") Retirement and Security Plan ("RS Plan"). The RS Plan is a defined benefit pension plan qualified under Section 401 and tax-exempt under Section 501(a) of the Internal Revenue Code. Under ASC 960, "Topic 960 – Plan Accounting – Defined Benefit Pension Plans," the RS Plan is a multiemployer plan, in which the accumulated benefits and plan assets are not determined or allocated separately to individual employers. Chugach makes annual contributions to the RS Plan equal to the amounts accrued for pension expense.

Chugach made contributions to all significant pension plans for the years ended December 31, 2019, 2018 and 2017 of $6.7 million, $6.3 million and $5.9 million, respectively. The rate and number of employees in all significant pension plans did not materially change for the years ended December 31, 2019, 2018 or 2017.

In December 2012, a committee of the NRECA Board of Directors approved an option to allow participating cooperatives in the Retirement Security ("RS") Plan (a defined benefit multiemployer pension plan) to make a prepayment and reduce future required contributions. The prepayment amount is a cooperative's share, as of January 1, 2013, of future contributions required to fund the RS Plan's unfunded value of benefits earned to date using Plan actuarial valuation assumptions. The prepayment amount will typically equal approximately 2.5 times a cooperative's annual RS Plan required contribution as of January 1, 2013. After making the prepayment, for most cooperatives the billing rate is reduced by approximately 25%, retroactive to January 1 of the year in which the amount is paid to the RS Plan. The 25% differential in billing rates is expected to continue for approximately 15 years from January 1, 2013. However unexpected changes in interest rates, asset returns and other plan experience, plan assumption changes, and other factors may have an impact on the differential in billing rates and the 15-year period.

On December 29, 2016, Chugach made a prepayment of $7.9 million to the NRECA RS Plan. See *Note 2n – "Deferred Charges and Liabilities."*

The following table provides information regarding pension plans which Chugach considers individually significant:

	Alaska Electrical Pension Plan[3]			NRECA Retirement Security Plan[3]		
Employer Identification Number	92-6005171			53-0116145		
Plan Number	001			333		
Year-end Date	December 31			December 31		
Expiration Date of CBA's	June 30, 2021			N/A[2]		
Subject to Funding Improvement Plan	No			No[4]		
Surcharge Paid	N/A			N/A[4]		
	2019	2018	2017	2019	2018	2017
Zone Status	Green	Green	Green	N/A[1]	N/A[1]	N/A[1]
Required minimum contributions	None	None	None	N/A	N/A	N/A
Contributions (in millions)	$3.5	$3.5	$3.3	$3.2	$2.8	$2.6
Contributions > 5% of total plan contributions	Yes	Yes	Yes	No	No	No

[1] A "zone status" determination is not required, and therefore not determined under the Pension Protection Act (PPA) of 2006.
[2] The CEO and COO are the only participants in the NRECA RS Plan who are subject to employment agreements. The CEO's employment agreement is effective through April 30, 2024. The COO's employment agreement is effective through January 1, 2025.
[3] The Alaska Electrical Pension Plan financial statements are publicly available. The NRECA RS Plan financial statements are available on Chugach's website at www.chugachelectric.com.
[4] The provisions of the PPA do not apply to the RS Plan, therefore, funding improvement plans and surcharges are not applicable. Future contribution requirements are determined each year as part of the actuarial valuation of the RS Plan and may change as a result of plan experience.

Health and Welfare Plans

Health and welfare benefits for union employees are provided through the Alaska Electrical Health and Welfare Trust and the Alaska Hotel, Restaurant and Camp Employees Health and Welfare and Pension Trust Fund. Chugach participates in multiemployer plans that provide substantially all union workers with health care and other welfare benefits during their employment with Chugach. Chugach pays a defined amount per union employee pursuant to collective bargaining unit agreements. Amounts charged to benefit costs and contributed to the health and welfare plans for these benefits for the years ending December 31, 2019, 2018, and 2017 were $5.2 million, $5.1 million, and $4.8 million, respectively.

Chugach participates in a multi-employer plan through the Group Benefits Program of NRECA for non-union employees. Amounts charged to benefit cost and contributed to this plan for those benefits for the years ended December 31, 2019, 2018, and 2017 totaled $2.8 million, $2.7 million, and $2.8 million, respectively.

Money Purchase Pension Plan

Chugach participates in a multiemployer defined contribution money purchase pension plan covering some employees who are covered by a collective bargaining agreement. Contributions to this plan are made based on a percentage of each employee's compensation. Contributions to the money purchase pension plan for the years ending December 31, 2019, 2018 and 2017 were $148.1 thousand, $137.3 thousand and $141.8 thousand, respectively.

401(k) Plan

Chugach has a defined contribution 401(k) retirement plan which covers substantially all employees who, effective January 1, 2008, can participate immediately. Employees who elect to participate may contribute up to the Internal Revenue Service's maximum of $19,000 in 2019, $18,500 in 2018, $18,000 in 2017, and allowed catch-up contributions for those over 50 years of age of $6,000 in 2019, 2018, and 2017. Chugach does not make contributions to the plan.

Deferred Compensation

Effective January 1, 2011, Chugach participates in Vanguard's unfunded Deferred Compensation Program (the Program) to allow highly compensated employees who elect to participate in the Program to defer a portion of their current compensation and avoid paying tax on the deferrals until received. The program is a non-qualified plan under Internal Revenue Code 457(b).

Deferred compensation accounts are established for the individual employees, however, they are considered to be owned by Chugach until a distribution is made. The amounts credited to the deferred compensation account, including gains or losses, are retained by Chugach until the entire amount credited to the account has been distributed to the participant or to the participant's beneficiary. The balance of the Program at December 31, 2019, and 2018 was $1,775,759 and $1,359,878, respectively.

Potential Termination Payments

Pursuant to a Chugach Operating Policy, non-represented employees, including the executive officers except the Chief Executive Officer and Chief Operating Officer, who are terminated by Chugach for reasons unrelated to employee performance are entitled to severance pay for each year or partial year of service as follows: two weeks for each year of service to a maximum of 26 weeks for 13 years or more of service.

(13) Bradley Lake Hydroelectric Project

Chugach is a participant in the Bradley Lake Hydroelectric Project ("Bradley Lake"). Bradley Lake was built and financed by the Alaska Energy Authority ("AEA") through State of Alaska grants and $166.0 million of revenue bonds. Chugach and other participating utilities have entered into take-or-pay power sales agreements under which shares of the project capacity have been purchased and the participants have agreed to pay a like percentage of annual costs of the project (including ownership, operation and maintenance costs, debt service costs and amounts required to maintain established reserves). Under these take-or-pay power sales agreements, the participants have agreed to pay all project costs from the date of commercial operation even if no energy is produced. Chugach has a 30.4% share, or 27.4 megawatts (MW) as currently operated, of the project's capacity. The share of Bradley Lake indebtedness for which we are responsible is approximately $10.2 million. Upon the default of a Bradley Lake participant, and subject to certain other conditions, AEA is entitled to increase each participant's share of costs pro rata, to the extent necessary to compensate for the failure of another participant to pay its share, provided that no participant's percentage share is increased by more than 25%. Upon default, Chugach could be faced with annual expenditures of approximately $6.8 million as a result of Chugach's

Bradley Lake take-or-pay obligations. Management believes that such expenditures, if any, would be recoverable through the fuel and purchased power adjustment process.

The Battle Creek Diversion Project ("Project") is a project to increase water available for generation by constructing a diversion on the West Fork of Upper Battle Creek to divert flows to Bradley Lake, increasing annual energy output by an estimated 37,000 MWh. The Bradley Lake Project Management Committee ("BPMC") approved the project October 13, 2017, as amended December 1, 2017, and December 6, 2017. The Project cost is estimated at $47.2 million and the BPMC approved financing on December 6, 2017. Construction began in the Spring of 2018 and is anticipated to be completed in the fall of 2020. Not all Bradley Lake purchasers are participating in the development and resulting benefits of the Project at this time, although they have reserved their ability to participate in the Project at a later date. Chugach would be entitled to 39.38% of the additional energy produced if no additional participants elect to join. The share of Battle Creek indebtedness for which we are responsible is approximately $16.2 million.

The following represents information with respect to Bradley Lake at June 30, 2019 (the most recent date for which information is available). Chugach's share of expenses was $5,195,917 in 2019, $7,367,455 in 2018, and $6,452,898 in 2017, and is included in purchased power in the accompanying financial statements.

(In thousands)	Total	Proportionate Share
Plant in service	$ 170,661	$ 51,881
Long-term debt	63,684	23,063
Interest expense	1,746	531

Chugach's share of a Bradley Lake transmission line financed internally is included in Intangible Electric Plant.

(14) Eklutna Hydroelectric Project

Along with two other utilities, Chugach purchased the Eklutna Hydroelectric Project from the Federal Government in 1997. Ownership was transferred from the United States Department of Energy's Alaska Power Administration jointly to Chugach (30%), MEA (17%) and ML&P (53%).

Plant in service at December 31, 2019 included $5,102,906, net of accumulated depreciation of $2,902,772, which represents Chugach's share of the Eklutna Hydroelectric Project. At December 31, 2018, plant in service included $5,239,109, net of accumulated depreciation of $2,757,865. The facility is operated by ML&P with support from Chugach and maintained jointly by all project owners in various capacities. Each participant contributes their proportionate share for operation, maintenance and capital improvement costs to the plant, as well as to the transmission line between Anchorage and the plant. Chugach's share of expenses was $620,273, $416,237, and $403,511 in 2019, 2018, and 2017, respectively, and is included in purchased power, power production and depreciation expense in the accompanying financial statements. ML&P performs major maintenance at the plant. Chugach performs the daily operation and maintenance of the power plant, providing personnel who perform daily plant inspections, meter reading, monthly report preparation, and other activities as required.

(15) Beluga River Unit

In April 2016, Chugach and ML&P acquired ConocoPhillips, Inc.'s ("CPAI") working interest in the BRU. Chugach acquired 30% and ML&P acquired 70%. Chugach invested in the BRU to reduce the cost of electric service to its retail and wholesale members by securing an additional long-term supply of natural gas to meet on-going generation requirements. The acquisition complements existing gas supplies and provides greater fuel diversity.

The ownership shares include the attendant rights and privileges of all gas and oil resources, including 15,500 lease acres (8,200 in Unit / Participating Area and 7,300 held by Unit), Sterling and Beluga producing zones, and CPAI's 67% working interest in deep oil resources. Additionally, CPAI had contractual gas sales obligations to ENSTAR through 2017. This contract was assumed by ML&P and Chugach on the basis of ownership share and was not renewed, therefore there was no revenue recognized from gas sales to ENSTAR during 2019 or 2018, and $6.6 million for the year ended December 31, 2017.

The BRU is located on the western side of Cook Inlet, approximately 35 miles from Anchorage, and is an established natural gas field that was originally discovered in 1962. The BRU was jointly owned (one-third) by CPAI, Hilcorp, and ML&P. Following the acquisition, ML&P's ownership of the BRU increased to approximately 56.7%, Hilcorp's ownership remained unchanged at 33.3%, and Chugach's ownership is 10.0%.

Chugach obtained RCA approval to record BRU acquisition costs as deferred charges on our balance sheet and to amortize these costs based on units of BRU production and recognize as depreciation and amortization on Chugach's statement of operations. Chugach was also permitted to recover the deferred costs in the gas transfer price.

Each of the BRU participants has a right to take their interest of the gas produced. Parties that take less than their interest of the field's output may either accept a cash settlement for their underlift or take their underlifted gas in future years. Chugach was in an overlift position of 174 Mcf and 198 Mcf at December 31, 2019 and 2018, respectively. Chugach has opted to take any cumulative underlift in gas in the future and will record the gas as fuel expense on the statement of operations when received.

Chugach records depreciation, depletion and amortization on BRU assets based on units of production. During 2019, Chugach lifted 0.9 Bcf resulting in a cumulative lift since purchase of 6.3 Bcf of the approximate 25.1 Bcf in Chugach's proven developed reserves. Chugach, and other owners, ML&P and Hilcorp, are operating under an existing Joint Operating Agreement. Hilcorp is the operator for BRU. In addition to the operator fees to Hilcorp, other BRU expenses include royalty expense and interest on long-term debt. All expenses other than depreciation, depletion and amortization and interest on long-term debt are included as fuel expense on Chugach's statement of operations. Chugach has applied and qualified for a small producer tax credit, provided by the State of Alaska, resulting in an estimate of no liability for production taxes for a period of ten years, through 2026. The revenue in excess of expenses less the allowed TIER from BRU operations is adjusted through Chugach's fuel and purchased power adjustment process.

(16) ML&P Acquisition

In December 2017, the Mayor of Anchorage, Alaska, announced plans to place a proposition on the April 3, 2018 municipal ballot allowing the voters to authorize the sale of ML&P to Chugach. The proposition was approved by Anchorage voters 65.08% to 34.92% per the certified election results. Chugach and the Municipality of Anchorage ("MOA") negotiated final sales agreements and associated documents. The sale of ML&P was approved by the Anchorage Assembly on December 4, 2018 and the Chugach Board of Directors gave its final approval on December 19, 2018.

On December 28, 2018, Chugach entered into an Asset Purchase and Sale Agreement ("APA") with the MOA to acquire substantially all of the assets, and certain specified liabilities of ML&P, subject to approval by the RCA. On December 28, 2018, Chugach also entered into an Eklutna Power Purchase Agreement ("Eklutna PPA"), a Payment in Lieu of Taxes Agreement ("PILT Agreement") and a BRU Fuel Agreement (collectively the "Ancillary Agreements") with the MOA.

During the first week of April 2019, pursuant to the APA, Chugach and the MOA jointly submitted applications to amend their respective CPCNs to permit Chugach to provide electric service in ML&P's legacy service territory. The RCA accepted the filing as complete on April 18, 2019, and a procedural conference was held on April 22, 2019. On May 8, 2019, the RCA issued an order indicating that a final order in the case was expected by November 19, 2019. In addition, the RCA granted the petitions to intervene filed by MEA; Providence Health and Services ("Providence"); GVEA; the Federal Executive Agencies ("FEA"); and HEA / Alaska Electric and Energy Cooperative, Inc. Hearings on the acquisition were held in August and September 2019. On October 1, 2019, all parties agreed to an extension for the RCA final order in the case to February 17, 2020. The statutory timeline for issuance of a final order and to rule on the Stipulations was extended until February 28, 2020. On February 27, 2020, the RCA issued an order extending the statutory timeline and extended the time to consider Stipulations to May 28, 2020.

In June 2019, Chugach and GVEA entered into a Memorandum of Understanding ("MOU") in which Chugach agreed to provide GVEA non-firm energy, wheeling and ancillary services for a 3-year period under terms and conditions consistent with its operating tariff, and will make available 5 MW of Bradley Lake capacity to GVEA for a 5-year period. Excluding fuel, the MOU is expected to provide over $10 million of additional revenue to Chugach's system over the term of the agreement. GVEA has withdrawn its petition to intervene regarding the ML&P acquisition.

Additionally, Chugach and the MOA will cooperate to obtain an order from the RCA approving the Ancillary Agreements and allowing Chugach to recover the costs associated with the transaction. Following RCA approval, a closing date will be scheduled for the transaction within 120 days. Pursuant to the original APA, upon closing, Chugach will transfer the purchase price of $767.8 million less the estimated accrued leave liability and the estimated net book value of designated excluded assets. The APA also includes terms for post-closing purchase price adjustments. In September 2019, Chugach entered into APA Amendment No. 1, which provides that the purchase price shall reflect the net book value of ML&P assets at closing and amends related definitions. In October 2019, Chugach entered into APA Amendment No. 2 extending the termination date of the APA from March 31, 2020, to September 30, 2020, and recognizing the Eklutna Transmission

Assets as acquired assets in recognition of the fulfillment of a condition in the original APA. Also in October 2019, the Chugach Board and the MOA Assembly approved APA Amendment No. 3 reducing the upfront payment to the MOA by $10.0 million, eliminating upward price adjustments if ML&P's net book value of the purchased assets is greater than $715.4 million at closing, and recognizing a $36.0 million rate reduction account to be funded by the MOA for the benefit of the ML&P legacy customers.

The Eklutna PPA, which will be effective upon closing, provides for the purchase of all or a portion of ML&P's share of generation from the Eklutna Hydroelectric Project by Chugach from the MOA for a period of 35 years at specified fixed prices each year. In September 2019, Chugach entered into PPA Amendment No. 1, which defines the Eklutna PPA as a wholesale power agreement. In October 2019, Chugach entered into PPA Amendment No. 2 to recognize changes to the dispute resolution procedures and the Chugach Board and the MOA Assembly approved PPA Amendment No. 3 to recognize Chugach's right to set-off payments to the extent the MOA does not fulfill its obligations required in the stipulation filed with the RCA, see "*Note 5 – Regulatory Matters – ML&P Acquisition*".

The PILT Agreement, which will be effective upon closing, provides for Chugach to make annual payments in lieu of taxes to the MOA for a period of 50 years based on current millage rates and the adjusted book value of property for ML&Ps service territory in existence at the closing as adjusted each year. The PILT Agreement also provides that until December 31, 2033, Chugach shall only collect amounts associated with those annual PILT payments from retail customers in the legacy ML&P territory. Thereafter, the annual PILT payments shall be collected from all Chugach retail customers. In September 2019, Chugach entered into PILT Amendment No. 1 to revise the calculation of PILT to make it consistent with the APA Amendment No. 1. In October 2019, Chugach entered into PILT Amendment No. 2 to remove Chugach's obligation in certain regulatory or bankruptcy proceedings to support and stipulate to the fact that the payments in lieu of taxes are a tax obligation and should be given appropriate priority status based on that fact.

The BRU Fuel Agreement, which will be effective upon closing, provides that through December 31, 2033, Chugach will use gas attributable to production in the portion of the BRU acquired from MOA to serve retail customers of Chugach within the legacy ML&P territory at a specified gas transfer price and will use any excess gas to serve other customers of Chugach at the same specified gas transfer price. In October 2019, the Chugach Board and the MOA Assembly approved an Amended and Restated BRU Fuel Agreement extending the period over which the costs and benefits of Chugach's and ML&P's legacy shares of BRU will be allocated to customers in each legacy service area. This amended agreement also requires Chugach to utilize a market proxy value for any legacy share BRU gas used for economy energy sales or for any legacy share BRU gas used to serve Chugach legacy customers for transactions between the legacy service areas of Chugach and MLP.

(17) Revenue From Contracts With Customers

a. Nature of goods and services

The following is a description of the contracts and customer classes from which Chugach generates revenue.

i. Energy Sales

Energy sales revenues are Chugach's primary source of revenue, representing approximately 97.0%, 95.5% and 92.7% of total operating revenue during the years ended December 31, 2019, 2018 and 2017, respectively. Energy sales revenues are recognized upon delivery of electricity, based on billing rates authorized by the RCA, which are applied to customers' usage of electricity. Chugach's rates are established, in part, on test period sales levels that reflect actual operating results. Chugach's tariffs include provisions for the recovery of gas costs according to gas supply contracts and costs associated with the BRU operations, as well as purchased power costs.

Expenses associated with electric services include fuel purchased from others and produced from Chugach's interest in the BRU, both of which are used to generate electricity, as well as power purchased from others. Chugach is authorized by the RCA to recover fuel and purchased power costs through the fuel and purchased power adjustment process, which is adjusted quarterly to reflect increases and decreases of such costs. The amount of fuel and purchased power revenue recognized is equal to actual fuel and purchased power costs. We recognize differences between projected recoverable fuel and purchased power costs and amounts actually recovered through rates. The fuel cost under/over recovery on our balance sheet represents the net accumulation of any under- or over-collection of fuel and purchased power costs. Fuel cost under-recovery will appear as an asset on our balance sheet and will be collected from our members in subsequent periods. Conversely, fuel cost over-recovery will appear as a liability on our balance sheet and will be refunded to our members in subsequent periods.

Customer Class	Nature, timing of satisfaction of performance obligations, and significant payment terms
Retail	Retail energy customers can have up to four components of monthly billing included in revenue – energy, fuel and purchased power, demand and customer charge. The energy rate and fuel and purchased power surcharge are applied by kilowatt hour (kWh) usage. The demand charge is applied by kilowatt (kW). The customer charge is a monthly amount applied by meter.
Wholesale	Classified as firm energy sales. Four components of monthly billing are included in revenue – energy, fuel and purchased power, demand and customer charge. The energy rate and fuel and purchased power surcharge are applied by kWh usage. The demand charge is applied by kW. The customer charge is a monthly amount applied by meter.
Economy	Classified as non-firm energy sales. Three components of monthly billing are included in revenue – fuel, operations and maintenance, and margin. The actual fuel costs are billed per thousand cubic feet (Mcf) used. The operations and maintenance and margin rates are applied by megawatt hour (MWh) usage.

Payment on energy sales invoices to all customer classes above are due within 15 to 30 days.

Chugach calculates unbilled revenue, for residential and commercial customers, at the end of each month to ensure the recognition of a full month of revenue. Chugach accrued $11,249,118 and $10,296,532 of unbilled retail revenue at December 31, 2019 and 2018, respectively, which is included in accounts receivable on the balance sheet. Revenue derived from wholesale and economy customers is recorded from metered locations on a calendar month basis, so no estimation is required.

The collectability of our energy sales is very high with typically 0.10% written off as bad debt expense, adjusted annually.

There were no costs associated with obtaining any of these contracts, therefore no asset was recognized or recorded associated with obtaining any contract.

ii. Wheeling

Wheeling represented 1.8%, 3.3%, and 3.4% of our revenue during the years ended December 31, 2019, 2018, and 2017, respectively. Wheeling was recorded through the wheeling of energy across Chugach's transmission lines at rates set by utility tariff and approved by the RCA. The rates are applied to MWh of energy wheeled. The collectability of wheeling is very high, with no adjustment required.

iii. Gas Sales

There were no gas sales during the years ended December 31, 2019 and 2018. Gas sales represented 3.0% of our revenue during the year ended December 31, 2017. Gas sales were recorded through the transfer of natural gas and billed monthly, using Mcf as the unit of measure, and the RCA approved gas transfer price, revised annually. The collectability of gas sales was very high, with no adjustment required.

iv. Other Miscellaneous Services

Other miscellaneous services consist of various agreements including dispatch service and gas transfer agreements, pole rentals and microwave bandwidth. Revenue from these agreements is billed monthly and represented 1.2%, 1.2%, and 0.9% of our total operating revenue during the years ended December 31, 2019, 2018, and 2017, respectively. The revenue recognized from these agreements is recorded as the service is provided over a period of time. The collectability of these agreements is very high, with no adjustment required.

b. Disaggregation of Revenue

The table below details the revenue recognized by customer class and disaggregates base revenue from fuel and purchased power revenue recognized in the Consolidated Statement of Operations for the year ended December 31, 2019 and 2018 (in millions).

	Base Rate Sales Revenue			Fuel and Purchased Power Revenue			Total Revenue		
	2019	2018	% Variance	2019	2018	% Variance	2019	2018	% Variance
Retail	$ 126.4	$ 121.2	4.3 %	$ 73.8	$ 66.7	10.6 %	$ 200.2	$ 187.9	6.5 %
Wholesale	$ 2.2	$ 2.0	10.0 %	$ 3.7	$ 3.2	15.6 %	$ 5.9	$ 5.2	13.5 %
Economy	$ 0.0	$ 0.0	0.0 %	$ 0.0	$ 0.0	0.0 %	$ 0.0	$ 0.0	0.0 %
Total Energy Sales	**$ 128.6**	**$ 123.2**	**4.4 %**	**$ 77.5**	**$ 69.9**	**10.9 %**	**$ 206.1**	**$ 193.1**	**6.7 %**
Wheeling	$ 0.0	$ 0.0	0.0 %	$ 3.8	$ 6.7	(43.3%)	$ 3.8	$ 6.7	(43.3%)
Other	$ 2.6	$ 2.4	8.3 %	$ 0.0	$ 0.1	(100.0%)	$ 2.6	$ 2.5	4.0 %
Total Miscellaneous	**$ 2.6**	**$ 2.4**	**8.3 %**	**$ 3.8**	**$ 6.8**	**(44.1%)**	**$ 6.4**	**$ 9.2**	**(30.4%)**
Total Revenue	**$ 131.2**	**$ 125.6**	**4.5 %**	**$ 81.3**	**$ 76.7**	**6.0 %**	**$ 212.5**	**$ 202.3**	**5.0 %**

The table below details the revenue recognized by customer class and disaggregates base revenue from fuel and purchased power revenue recognized in the Consolidated Statement of Operations for the year ended December 31, 2018, and 2017 (in millions).

	Base Rate Sales Revenue			Fuel and Purchased Power Revenue			Total Revenue		
	2018	2017	% Variance	2018	2017	% Variance	2018	2017	% Variance
Retail	$ 121.2	$ 122.5	(1.1 %)	$ 66.7	$ 75.6	(11.8 %)	$ 187.9	$ 198.1	(5.1%)
Wholesale	$ 2.0	$ 2.1	(4.8 %)	$ 3.2	$ 3.8	(15.8 %)	$ 5.2	$ 5.9	(11.9%)
Economy	$ 0.0	$ 0.7	(100.0 %)	$ 0.0	$ 3.6	(100.0 %)	$ 0.0	$ 4.3	(100.0%)
Total Energy Sales	**$ 123.2**	**$ 125.3**	**(1.7 %)**	**$ 69.9**	**$ 83.0**	**(15.8 %)**	**$ 193.1**	**$ 208.3**	**(7.3%)**
Wheeling	$ 0.0	$ 0.0	0.0 %	$ 6.7	$ 7.7	(13.0 %)	$ 6.7	$ 7.7	(13.0%)
Gas Sales	$ 0.0	$ 0.0	0.0 %	$ 0.0	$ 6.6	(100.0 %)	$ 0.0	$ 6.6	(100.0%)
Other	$ 2.4	$ 2.0	20.0 %	$ 0.1	$ 0.1	0.0 %	$ 2.5	$ 2.1	19.0 %
Total Miscellaneous	**$ 2.4**	**$ 2.0**	**20.0 %**	**$ 6.8**	**$ 14.4**	**(52.8 %)**	**$ 9.2**	**$ 16.4**	**(43.9%)**
Total Revenue	**$ 125.6**	**$ 127.3**	**(1.3 %)**	**$ 76.7**	**$ 97.4**	**(21.3 %)**	**$ 202.3**	**$ 224.7**	**(10.0%)**

c. Contract Balances

The table below provides information about contract receivables, contract assets and contract liabilities.

	December 31, 2019	December 31, 2018
Contract receivables, included in accounts receivable	$ 26,383,976	$ 27,179,031
Contract asset	1,445,753	0
Contract liabilities	1,839,514	5,196,426

Contract receivables represent amounts receivable from retail, wholesale, economy, and wheeling.

The contract asset consists of the fuel cost under-recovery and represents the under-collection of fuel and purchased power costs through the fuel and purchased power adjustment process, which will be collected from customers in the following quarter.

Contract liabilities consist of credit balances and fuel cost over-recovery. Credit balances are reported as consumer deposits and represent the prepaid accounts of retail customers and are recognized in revenue as the customer uses electric service. Fuel cost over-recovery represents the over-collection of fuel and purchased power costs through the fuel and purchased power adjustment process, which will be refunded to customers through lower rates in the following quarter.

Significant changes in the contract asset balances are as follows:

	December 31, 2019	December 31, 2018
Contract asset at beginning of period	$ 0	$ 4,921,794
Cash received, excluding amounts recognized as revenue during the period	1,445,753	0
Revenue recognized and transferred from contract asset at the beginning of the period	0	(4,921,794)
Contract asset at end of period	$ 1,445,753	$ 0

Significant changes in the contract liabilities balances are as follows:

	December 31, 2019	December 31, 2018
Contract liabilities at beginning of period	$ 5,196,426	$ 1,581,481
Cash received, excluding amounts recognized as revenue during the period	1,839,514	5,196,426
Revenue recognized and transferred from contract liabilities at the beginning of the period	(5,196,426)	(1,581,481)
Contract liabilities at end of period	$ 1,839,514	$ 5,196,426

d. Transaction Price Allocated to Remaining Performance Obligations

The table below includes estimated revenue to be recognized in 2020 related to performance obligations that are unsatisfied (or partially unsatisfied) at December 31, 2019.

	2019
Credit balances	$ 1,839,514

Credit balances are primarily associated with Chugach's LevelPay program. The program calculates the monthly amount to be collected from customers annually. It is anticipated the balance will be recognized in revenue within the following year as customers consume electricity.

Chugach's fuel cost over- and under- recovery are adjusted quarterly, therefore, amounts over or under collected will be collected or refunded in the following quarter.

(18) Leases

Effective January 1, 2019, Chugach began application of ASC Topic 842, Leases. Adoption of the new standard requires recognition of leases on the balance sheet. Chugach has no financing leases and several operating leases, most of which are various land easements. Chugach identified four operating leases as right-of-use assets for a building, office equipment, heavy equipment and substation land lease, with remaining lease terms of one to 25 years and a weighted average lease term of 6.65 years. Chugach's operating lease assets are presented as operating lease right-of-use assets on our Consolidated Balance Sheet. The current portion of operating lease liabilities is included in current installments of long-term obligations and the long-term portion is presented as operating lease liabilities on our Consolidated Balance Sheet. A discount rate of 4.24% was used in calculating the right-to-use assets and lease liabilities associated with the building, office equipment and substation land lease, while a discount rate of 4.05% was used in calculating the right-of-use asset and lease liability for the heavy equipment. Chugach's discount rate was calculated using our incremental borrowing rate based on the average borrowing rate of our long-term debt.

Adoption had an immaterial impact on our Consolidated Statements of Operations. The recognition of the right-of-use assets and operating lease liability represents a non-cash investing and financing activity. Total operating lease expense for the twelve months ended December 31, 2019, was $885,926, primarily associated with land easements and helicopter services.

Supplemental cash flow information associated with leases:

	Twelve months ended December 31, 2019
Cash paid for amounts included in the measurement of liabilities:	
Operating cash flows from operating leases	$ 244,380
Right-of-use assets obtained in exchange for lease obligations:	
Operating leases	$ 958,111

Supplemental balance sheet information associated with leases at December 31 were:

	2019
Operating lease right-of-use assets	$ 958,111
Operating lease liabilities	738,713
Current installments of lease liabilities	219,398
Total operating lease liabilities	$ 958,111

Maturities associated with lease liabilities:

	2019
2020	$ 261,840
2021	225,000
2022	225,000
2023	225,000
2024	9,000
Thereafter	162,000
Total lease payments	1,107,840
Less imputed interest	149,729
Present value of lease liabilities	$ 958,111

Chugach entered into a Power Purchase Agreement with Fire Island Wind, LLC ("FIW"), on June 21, 2011. The FIW contract contains a lease because the agreement identifies an asset (the wind farm is explicitly specified in the agreement and FIW does not have substantive substitution rights) and Chugach controls the use of the asset (we take 100% of the output and, to the extent there is wind, can control how and when the wind farm produces power directly through its supervisory control and data ("SCADA") system). However, due to the exclusively variable nature of the payments related to the FIW, no new assets or liabilities have been added to our balance sheet, no changes were made to our statement of cash flows, and the variable payments are still classified as purchased power expense on our statement of operations. The amount of variable payments included in purchased power for the year ended December 31, 2019, was $4,653,551.

(19) Commitments and Contingencies

Contingencies

Chugach is a participant in various legal actions, rate disputes, personnel matters and claims both for and against Chugach's interests. Management believes the outcome of any such matters will not materially impact Chugach's financial condition, results of operations or liquidity. Chugach establishes reserves when a particular contingency is probable and calculable. Chugach has not accrued for any contingency at December 31, 2019, as it does not consider any contingency to be probable nor calculable. Chugach faces contingencies that are reasonably possible to occur; however, they cannot currently be estimated.

Concentrations

Approximately 70% of our employees are members of the International Brotherhood of Electrical Workers ("IBEW"). Chugach has three Collective Bargaining Unit Agreements ("CBA") with the IBEW. We also have a CBA with the Hotel Employees and Restaurant Employees (HERE). All three IBEW CBA's and the HERE CBA have been renewed through June 30, 2021.

Fuel Supply Contracts

Chugach entered into a gas contract with Hilcorp effective January 1, 2015, to provide gas through March 31, 2018. The first amendment to this agreement extended the term through March 31, 2019. The second amendment to this agreement revised payment procedures and updated notice provisions. The third amendment extended the term of this agreement, thus filling up to 100% of Chugach's needs through March 31, 2023. On December 31, 2019, Chugach entered into a fourth amendment to this agreement thus extending the term through March 31, 2028. The total amount of gas under this contract is currently estimated to be 79.4 Bcf. All of the production is expected to come from Cook Inlet, Alaska. The terms of the Hilcorp agreement require Chugach to manage the natural gas transportation over the connecting pipeline systems. Chugach has gas transportation agreements with ENSTAR Natural Gas Company ("ENSTAR") and Hilcorp.

In 2019, 81% of our electric energy was generated from gas, with 7% generated at the Beluga Power Plant and 82% generated at SPP. In 2018, 75% of our power was generated from gas, with 4% generated at Beluga and 90% generated at SPP.

The following represents the cost of fuel purchased and or transported from various vendors as a percentage of total fuel costs for the years ended December 31:

	2019	2018	2017
Hilcorp	91.2 %	90.9 %	88.4 %
Furie	1.0 %	0.6 %	5.3 %
AIX Energy	0.0 %	0.0 %	0.1 %
ENSTAR	4.4 %	4.9 %	3.4 %
Harvest (Hilcorp) Pipeline	3.4 %	3.6 %	2.1 %
Miscellaneous	0.0 %	0.0 %	0.7 %

Patronage Capital Payable

Pursuant to agreements reached with HEA and MEA, and discussed in *Note (9) – "Patronage Capital,"* patronage capital allocated or retired to HEA or MEA is classified as patronage capital payable on Chugach's balance sheet. The Board of Directors approved a capital credit retirement payment on March 27, 2019. MEA received a retirement payment of $4.6 million eliminating their payable at December 31, 2019. We finalized an agreement with HEA in September 2017, which spread their retirement payments between 2017 and 2020 in increments of $2.0 million annually. As a result, $2.0 million of HEA's patronage capital payable was retired and paid in 2019 and 2018, and the balance of HEA's patronage capital of $1.9 million was reclassified to a current payable under other current liabilities leaving no long-term patronage capital payable at December 31, 2019. At December 31, 2018, total patronage capital payable to HEA and MEA was $3.9 million and $1.5 million, respectively.

Regulatory Cost Charge

In 1992, the State of Alaska Legislature passed legislation authorizing the Department of Revenue to collect a Regulatory Cost Charge from utilities to fund the governing regulatory commission, which is currently the RCA. The tax is assessed on all retail consumers and is based on kilowatt-hour (kWh) consumption. The tax is collected monthly and remitted to the State of Alaska quarterly. The Regulatory Cost Charge has changed since its inception (November of 1992) from an initial rate of $0.000626 per kWh to the current rate of $0.000593, effective October 1, 2019. The tax is reported on a net basis and the tax is not included in revenue or expense.

Sales Tax

Chugach collects sales tax on retail electricity sold to Kenai and Whittier consumers. The tax is collected monthly and remitted to the Kenai Peninsula Borough quarterly. Sales tax is reported on a net basis and the tax is not included in revenue or expense.

Gross Revenue Tax

Chugach pays to the State of Alaska a gross revenue tax in lieu of state and local ad valorem, income and excise taxes on electricity sold in the retail market. The tax is collected monthly and remitted annually.

Underground Compliance Charge

In 2005, the Anchorage Municipal Assembly adopted an ordinance to require utilities to convert overhead distribution lines to underground. To comply with the ordinance, Chugach must expend two percent of a three-year average of gross retail revenue within the Municipality of Anchorage annually in moving existing distribution overhead lines underground. Consistent with Alaska Statutes regarding undergrounding programs, Chugach is permitted to amend its rates by adding a two percent charge to its retail members' bills to recover the actual costs of the program. The rate amendments are not subject to RCA review or approval. Chugach's liability was $10,001,492 and $7,270,099 for this charge at December 31, 2019 and 2018, respectively, and is included in other current liabilities. These funds are used to offset the costs of the undergrounding program.

Environmental Matters

Chugach includes costs associated with environmental compliance in both our operating and capital budgets. We accrue for costs associated with environmental remediation obligations when those costs are probable and reasonably estimated. We do not anticipate that environmental related expenditures will have a material effect on our results of operations or financial condition. We cannot, however, predict the nature, extent or cost of new laws or regulations relating to environmental matters.

The three utility owners of the Eklutna Hydro Project (Chugach, ML&P, and MEA) are obligated by a 1991 Fish & Wildlife Agreement to develop and implement measures to protect, mitigate, and enhance the fish and wildlife impacted by the project (PME program). The program is to be approved by the Governor of Alaska with completion of the program no later than October of 2032, 35 years after its purchase. The owners initiated a required consultation process with key government agencies and interested parties in March 2019. The agreement requires equal consideration of; 1) efficient and economical power production, 2) energy conservation, 3) protection, mitigation of damage to, and enhancement of fish and wildlife, 4) protection of recreation opportunities, 5) municipal water supplies, 6) preservation of other aspects of environmental quality, 7) other beneficial public uses, and 8) requirements of state law. The hydro project and municipal water system currently utilize 100% of the water inflows.

The Clean Air Act and Environmental Protection Agency ("EPA") regulations under the Clean Air Act establish ambient air quality standards and limit the emission of many air pollutants. New Clean Air Act regulations impacting electric utilities may result from future events or new regulatory programs. An Executive Order promoting energy independence and economic growth was issued on March 28, 2017, by the President instructing the EPA to review the Clean Power Plan ("CPP"). On August 21, 2018, the EPA proposed the Affordable Clean Energy ("ACE") rule which would establish emission guidelines for states to develop plans to address GHG emissions from existing coal-fired power plants. The final ACE rule was issued by the EPA on June 19, 2019. The final rule is certain to face legal challenge. The ACE rule, in its current form, is not expected to have a material effect on Chugach's financial condition, results of operations, or cash flows. While Chugach cannot predict the implementation of any additional new law or regulation, or the limitations thereof, it is possible that new laws or regulations could increase capital and operating costs. Chugach has obtained or applied for all Clean Air Act permits currently required for the operation of generating facilities.

Chugach is subject to numerous other environmental statutes including the Clean Water Act, the Resource Conservation and Recovery Act, the Toxic Substances Control Act, the Endangered Species Act, and the Comprehensive Environmental Response, Compensation and Liability Act and to the regulations implementing these statutes. Chugach does not believe that compliance with these statutes and regulations to date has had a material impact on its financial condition, results of operation or cash flows. However, the implementation of any additional new law or regulation, or the limitations thereof, or changes in or new interpretations of laws or regulations could result in significant additional capital or operating expenses. Chugach monitors proposed new regulations and existing regulation changes through industry associations and professional organizations.

(20) Quarterly Results of Operations (unaudited)

2019 Quarter Ended

	Dec. 31	Sept. 30	June 30	March 31
Operating Revenue	$ 57,528,229	$ 51,621,006	$ 47,540,088	$ 55,827,238
Operating Expense	47,412,807	46,583,888	43,950,075	48,300,845
Net Interest	5,384,622	5,653,363	5,506,323	5,455,656
Net Operating Margins	4,730,800	(616,245)	(1,916,310)	2,070,737
Nonoperating Margins	188,357	148,209	199,239	314,840
Assignable Margins	$ 4,919,157	$ (468,036)	$ (1,717,071)	$ 2,385,577

2018 Quarter Ended

	Dec. 31	Sept. 30	June 30	March 31
Operating Revenue	$ 54,092,291	$ 46,114,590	$ 45,988,583	$ 56,057,278
Operating Expense	44,361,690	42,244,792	41,492,627	47,472,116
Net Interest	5,477,364	5,388,981	5,433,913	5,557,372
Net Operating Margins	4,253,237	(1,519,183)	(937,957)	3,027,790
Nonoperating Margins	105,621	222,773	110,423	100,170
Assignable Margins	$ 4,358,858	$ (1,296,410)	$ (827,534)	$ 3,127,960