CHUGACH ELECTRIC ASSOCIATION, INC.

Financial Statements

December 31, 2018 and 2017

(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, 2018 and 2017, 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, 2018, 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, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2018, 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 adopted Financial Accounting Standards Board – Accounting Standards Codification Topic 606, *Revenue from Contracts with Customers,* 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 27, 2019

Chugach Electric Association, Inc.
Consolidated Balance Sheets
December 31, 2018 and 2017

Assets	December 31, 2018	December 31, 2017
Utility plant:		
Electric plant in service	$ 1,216,663,092	$ 1,205,092,224
Construction work in progress	17,272,307	17,952,573
Total utility plant	1,233,935,399	1,223,044,797
Less accumulated depreciation	(529,099,451)	(515,496,312)
Net utility plant	704,835,948	707,548,485
Other property and investments, at cost:		
Nonutility property	76,889	76,889
Investments in associated organizations	8,570,046	8,980,410
Special funds	1,890,221	1,466,010
Restricted cash equivalents	108,000	1,028,758
Total other property and investments	10,645,156	11,552,067
Current assets:		
Cash and cash equivalents	6,106,995	5,485,631
Special deposits	54,300	54,300
Restricted cash equivalents	1,213,974	687,370
Marketable securities	6,316,583	11,420,900
Fuel cost under-recovery	0	4,921,794
Accounts receivable, less provisions for doubtful accounts of $444,184 in 2018 and $555,336 in 2017	31,165,249	35,680,680
Materials and supplies	16,223,477	15,291,095
Fuel stock	11,952,086	6,901,994
Prepayments	2,227,117	4,953,170
Other current assets	241,279	257,193
Total current assets	75,501,060	85,654,127
Other non-current assets:		
Deferred charges, net	37,668,424	32,764,065
Total other non-current assets	37,668,424	32,764,065
Total assets	$ 828,650,588	$ 837,518,744

Chugach Electric Association, Inc.
Consolidated Balance Sheets (continued)
December 31, 2018 and 2017

Liabilities, Equities and Margins	December 31, 2018	December 31, 2017
Equities and margins:		
Memberships	$ 1,748,172	$ 1,719,154
Patronage capital	177,823,597	172,928,887
Other	14,952,925	14,653,253
Total equities and margins	194,524,694	189,301,294
Long-term obligations, excluding current installments:		
Bonds payable	398,416,664	421,833,331
Notes payable	33,972,000	37,164,000
Less unamortized debt issuance costs	(2,425,247)	(2,669,485)
Total long-term obligations	429,963,417	456,327,846
Current liabilities:		
Current installments of long-term obligations	26,608,667	26,608,667
Commercial paper	61,000,000	50,000,000
Accounts payable	9,538,749	7,420,279
Consumer deposits	4,845,611	5,335,896
Fuel cost over-recovery	3,388,295	0
Accrued interest	5,671,840	5,991,619
Salaries, wages and benefits	7,863,112	7,017,131
Fuel	5,844,856	9,913,781
Other current liabilities	10,085,556	7,079,821
Total current liabilities	134,846,686	119,367,194
Other non-current liabilities:		
Deferred compensation	1,359,878	1,229,294
Other liabilities, non-current	580,841	531,630
Deferred liabilities	764,834	1,249,390
Patronage capital payable	3,393,253	8,798,077
Cost of removal obligation / asset retirement obligation	63,216,985	60,714,019
Total other non-current liabilities	69,315,791	72,522,410
Total liabilities, equities and margins	$ 828,650,588	837,518,744

See accompanying notes to financial statements.

Chugach Electric Association, Inc.
Consolidated Statements of Operations
Years Ended December 31, 2018, 2017 and 2016

		2018		2017		2016
Operating revenues	$	202,252,742	$	224,688,669	$	197,747,579
Operating expenses:						
Fuel		56,283,541		78,552,672		54,778,582
Production		17,797,549		18,006,490		15,809,168
Purchased power		19,978,497		17,301,067		15,774,733
Transmission		7,361,503		6,129,871		5,590,737
Distribution		14,960,770		13,991,088		13,991,997
Consumer accounts		6,662,590		5,968,736		6,073,710
Administrative, general and other		22,651,092		23,256,983		22,888,048
Depreciation and amortization		29,875,683		34,010,777		36,233,414
Total operating expenses	$	175,571,225	$	197,217,684		171,140,389
Interest expense:						
Long-term debt and other		22,164,007		22,366,034		21,856,095
Charged to construction		(306,377)		(164,898)		(454,798)
Interest expense, net	$	21,857,630	$	22,201,136		21,401,297
Net operating margins	$	4,823,887	$	5,269,849		5,205,893
Nonoperating margins:						
Interest income		732,165		644,663		425,173
Allowance for funds used during construction		127,629		69,157		188,111
Capital credits, patronage dividends and other		(320,807)		65,055		(5,321)
Total nonoperating margins	$	538,987	$	778,875		607,963
Assignable margins	$	5,362,874	$	6,048,724	$	5,813,856

See accompanying notes to financial statements.

Chugach Electric Association, Inc.
Consolidated Statements of Changes in Equities and Margins
Years Ended December 31, 2018, 2017 and 2016

	Memberships	Other Equities and Margins	Patronage Capital	Total
Balance, January 1, 2016	$ 1,661,744	$ 12,527,856	$ 167,447,781	$ 181,637,381
Assignable margins	0	0	5,813,856	5,813,856
Retirement/net transfer of capital credits	0	0	(3,265,201)	(3,265,201)
Unclaimed capital credit retirements	0	1,175,962	0	1,175,962
Memberships and donations received	29,270	124,257	0	153,527
Balance, December 31, 2016	1,691,014	13,828,075	169,996,436	185,515,525
Assignable margins	0	0	6,048,724	6,048,724
Retirement/net transfer of capital credits	0	0	(3,116,273)	(3,116,273)
Unclaimed capital credit retirements	0	612,752	0	612,752
Memberships and donations received	28,140	212,426	0	240,566
Balance, December 31, 2017	1,719,154	14,653,253	172,928,887	189,301,294
Assignable margins	0	0	5,362,874	5,362,874
Retirement/net transfer of capital credits	0	0	(468,164)	(468,164)
Unclaimed capital credit retirements	0	105,651	0	105,651
Memberships and donations received	29,018	194,021	0	223,039
Balance, December 31, 2018	$ 1,748,172	$ 14,952,925	$ 177,823,597	$ 194,524,694

See accompanying notes to financial statements.

Chugach Electric Association, Inc.
Consolidated Statements of Cash Flows
Years Ended December 31, 2018, 2017 and 2016

	2018	2017	2016
Cash flows from operating activities:			
Assignable margins	$ 5,362,874	$ 6,048,724	$ 5,813,856
Adjustments to reconcile assignable margins to net cash provided by operating activities:			
Depreciation and amortization	29,875,683	34,010,777	36,233,414
Amortization and depreciation cleared to operating expenses	5,550,438	4,791,978	4,988,068
Allowance for funds used during construction	(127,629)	(69,157)	(188,111)
Write off of inventory, deferred charges and projects	175,608	413,690	997,301
Other	410,249	27,986	248,482
(Increase) decrease in assets:			
Accounts receivable, net	5,485,914	(2,858,099)	(4,926,631)
Fuel cost under-recovery	4,921,794	(4,921,794)	0
Materials and supplies	(992,627)	896,455	(850,493)
Fuel stock	(5,050,092)	(580,318)	741,865
Prepayments	2,726,053	(3,546,144)	59,275
Other assets	15,914	59,146	(71,144)
Deferred charges	(8,896,613)	(201,775)	(10,374,429)
Increase (decrease) in liabilities:			
Accounts payable	1,137,415	(1,469,106)	750,538
Consumer deposits	(490,285)	128,311	206,901
Fuel cost over-recovery	3,388,295	(3,824,722)	(1,311,023)
Accrued interest	(319,779)	118,251	(42,212)
Salaries, wages and benefits	845,981	(298,767)	56,092
Fuel	(4,068,925)	3,629,443	1,342,028
Other current liabilities	(8,930)	(2,045,800)	(1,051,220)
Deferred liabilities	(367,051)	(17,927)	(128,221)
Net cash provided by operating activities	39,574,287	30,291,152	32,494,336
Cash flows from investing activities:			
Return of capital from investment in associated organizations	414,187	370,010	319,233
Investment in special funds	(309,188)	(236,716)	0
Investment in marketable securities and investments-other	(2,872,104)	(924,903)	(10,580,000)
Investment in Beluga River Unit	0	0	(44,403,922)
Proceeds from the sale of marketable securities	7,666,196	0	0
Proceeds from capital grants	0	115,453	1,021,929
Extension and replacement of plant	(27,321,158)	(28,879,926)	(36,984,892)
Net cash used in investing activities	(22,422,067)	(29,556,082)	(90,627,652)
Cash flows from financing activities:			
Payments for debt issue costs	0	(206,871)	(277,155)
Net increase (decrease) in short-term obligations	11,000,000	(18,200,000)	48,200,000
Proceeds from long-term obligations	0	40,000,000	45,600,000
Repayments of long-term obligations	(26,608,667)	(24,836,667)	(48,181,832)
Memberships and donations received	328,690	853,318	1,329,489
Retirement of patronage capital and estate payments	(5,872,988)	(2,258,047)	(4,378,853)
Proceeds from consumer advances for construction	4,294,276	4,798,509	3,871,257
Repayments of customer advances for constructions	(66,321)	(66,770)	(122,519)
Net cash provided by (used in) financing activities	(16,925,010)	83,472	46,040,387
Net change in cash, cash equivalents, and restricted cash equivalents	227,210	818,542	(12,092,929)
Cash, cash equivalents, and restricted cash equivalents at beginning of period	$ 7,201,759	$ 6,383,217	$ 18,476,146
Cash, cash equivalents, and restricted cash equivalents at end of period	$ 7,428,969	$ 7,201,759	$ 6,383,217
Supplemental disclosure of non-cash investing and financing activities:			
Cost of removal obligation	$ 2,502,966	$ 2,110,487	$ 3,008,808
Asset retirement obligation assumed upon BRU acquisition	$ 0	$ 0	$ 3,523,409
Extension and replacement of plant included in accounts payable	$ 2,149,039	$ 1,185,788	$ 1,915,033
Patronage capital retired/net transferred and included in other current liabilities	$ 2,000,000	$ 2,057,036	$ 0
Supplemental disclosure of cash flow information - interest expense paid, net of amounts capitalized	$ 21,041,442	$ 20,911,535	$ 20,220,317

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. 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, 2018 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

Pursuant to FASB ASC 932-360-25, "Extractive Activities-Oil and Gas – Property, Plant and Equipment – Recognition," Chugach has elected the Full Cost method, rather than the Successful Efforts 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 prices changes were recorded during 2018, 2017 or 2016. Investments in associated organizations was $8.6 million and $9.0 million at December 31, 2018 and 2017, 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 $0.5 million and $0.2 million as of December 31, 2018 and 2017, 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, 2018	December 31, 2017
Cash and cash equivalents	$ 6,106,995	$ 5,485,631
Restricted cash equivalents	1,213,974	687,370
Restricted cash equivalents included in other property and investments	108,000	1,028,758
Total cash, cash equivalents and restricted cash equivalents shown in the consolidated statements of cash flows	$ 7,428,969	$ 7,201,759

Restricted cash equivalents include funds on deposit for future workers' compensation claims.

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 $403.4 thousand and $345.8 thousand at December 31, 2018 and 2017, respectively. Net gains and losses on marketable securities are included in nonoperating margins – capital credits, patronage dividends and other, and are summarized as follows:

	Twelve months ended December 31,	Twelve months ended December 31,
Net gains and (losses) recognized during the period on trading securities	$ (310,225)	$ 59,182
Less: Net gains and (losses) recognized during the period on trading securities *sold* during the period	(161,485)	0
Unrealized gains and (losses) recognized during the reporting period on trading securities *still held* at the reporting date	$ (148,740)	$ 59,182

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 $1.4 million and $1.3 million in 2018 and 2017, respectively. At December 31, 2017, accounts receivable also included $1.1 million from BRU operations primarily associated with gas sales to ENSTAR.

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, 2018 and 2017 amounted to $12.0 million and $6.9 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, 2018, 2017, and 2016 was $6.5 million, $7.2 million, and $7.9 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, 2018 and 2017, totaled $3.0 million and $3.7 million, respectively. Consumer deposits also represent customer credit balances as a result of prepaid accounts. Credit balances totaled $1.8 million and $1.6 million at December 31, 2018 and 2017.

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

Restricted cash – 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. Gas sales are recorded through the transfer of natural gas and billed monthly. 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 4.1% during 2018 and 2017, and 4.3% during 2016.

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, 2018, 2017 and 2016 was in compliance with that provision. In addition, as described in *Note (18) – "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, 2015 through December 31, 2018 for United States Federal Income Tax, the tax years which remain subject to examination by major tax jurisdictions as of December 31, 2018.

(3) Accounting Pronouncements

Issued, and adopted:

ASC Update 2014-09 "*Revenue from Contracts with Customers (Topic 606)*" and Related Updates

In May of 2014, the FASB issued ASC Update (ASU) 2014-09, "Revenue from Contracts with Customers (Topic 606)." ASU 2014-09 provides guidance for the recognition, measurement and disclosure of revenue related to the transfer of promised goods or services to customers. Chugach adopted the standard on January 1, 2018, using the modified retrospective transition method with no cumulative effect adjustment as of adoption.

We evaluated our contracts associated with energy sales, wheeling, gas sales, and other miscellaneous revenue and did not identify any change to the timing or pattern of revenue recognition. The adoption of Topic 606 also included additional disclosure requirements. See *"Note 17 – REVENUE FROM CONTRACTS WITH CUSTOMERS."*

ASC Update 2016-01 "*Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*"

In January of 2016, the FASB issued ASU 2016-01, "Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities." ASU 2016-01 amends guidance related to certain aspects of the recognition, measurement, presentation and disclosure of financial instruments. This update is effective for fiscal years beginning after December 15, 2017, and interim periods within those years, with early adoption not permitted with certain exceptions. Chugach began application of ASU 2016-01 on January 1, 2018. Adoption did not have a material effect on our results of operations, financial position, and cash flows.

ASC Update 2016-15 "*Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (a consensus of the FASB Emerging Issues Task Force*)"

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (a consensus of the FASB Emerging Issues Task Force). ASU 2016-15 clarifies how certain cash payments and cash proceeds should be classified on the statement of cash flows to limit the diversity in practice. This update is effective for fiscal years beginning after December 15, 2017, including interim periods within those years, with early adoption permitted. Chugach began application of ASU 2016-15 on January 1, 2018. Adoption did not have a material effect on our results of operations, financial position, and cash flows.

ASC Update 2016-18 "*Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force)*"

In November 2016, the FASB issued ASU 2016-18, "Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force)." ASU 2016-18 clarifies how to classify and present changes in restricted cash or cash equivalents that occur when there are transfers between cash, cash equivalents, and restricted cash or restricted cash equivalents and when there are direct cash receipts into or payments made from restricted cash or restricted cash equivalents on the statement of cash flows to limit the diversity in practice. This update is effective for fiscal years beginning after December 15, 2017, including interim periods within those years, with early adoption permitted. Chugach began application of ASU 2016-18 on January 1, 2018. Adoption did not have a material effect on our results of operations, financial position, and cash flows.

While there was not a material impact to the net change in cash flows, the cash balances at both December 31, 2017 and 2016, increased $1.7 million to reflect the restricted cash equivalents balances.

ASC Update 2017-01 "*Business Combinations (Topic 805): Clarifying the Definition of a Business*"

In January 2017, the FASB issued ASU 2017-01, "Business Combinations (Topic 805): Clarifying the Definition of a Business." ASU 2017-01 clarifies the definition of a business by providing a screen to determine when a set of assets and activities acquired or disposed of constitute a business, as well as a framework for evaluating whether all elements of a business are present in the set. This update is effective for fiscal years beginning after December 15, 2017, including interim periods within those years, with early adoption permitted only when the transaction has not been reported in financial statements. Chugach began application of ASU 2017-01 on January 1, 2018. Adoption did not have a material effect on our results of operations, financial position, and cash flows.

ASC Update 2017-07 "*Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*"

In March 2017, the FASB issued ASU 2017-07, "Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost." ASU 2017-07 amends current guidance on the presentation and disclosure of other compensation costs in the income statement. This update is effective for fiscal years beginning after December 15, 2017, including interim periods within those years, with early adoption permitted only for financial statements that have not been issued. Chugach began application of ASU 2017-07 on January 1, 2018. Adoption did not have a material effect on our results of operations, financial position, and cash flows.

Issued, not yet adopted:

ASC Update 2016-02 "*Leases (Topic 842): Section A – Leases: Amendments to the FASB Accounting Standards Codification; Section B – Conforming Amendments Related to Leases: Amendments to the FASB Accounting Standards Codification; Section C – Background Information and Basis for Conclusions*" and Related Updates

In February of 2016, the FASB issued ASU 2016-02, "Leases (Topic 842): Section A – Leases: Amendments to the FASB Accounting Standards Codification; Section B – Conforming Amendments Related to Leases: Amendments to the FASB Accounting Standards Codification; Section C – Background Information and Basis for Conclusions." ASU 2016-02 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. The update requires 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.

In January 2018, the FASB issued ASU 2018-01, "Leases (Topic 842): Land Easement Practical Expedient for Transition to Topic 842." ASU 2018-01 amends ASU 2016-02 to provide 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.

In December 2018, the FASB issued ASU 2018-20, "Leases (Topic 842): Narrow-Scope Improvements for Lessors." ASU 2018-20 amends ASU 2016-02 to address lessor stakeholders concerns regarding the following issues: sales taxes and other similar taxes collected from lessees, certain lessor costs, and recognition of variable payments from contracts with lease and nonlease components.

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 has elected to use the effective date method.

The standard includes certain practical expedients intended to ease the burden of adoption on preparers. Chugach has 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 has 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.

These updates are effective for fiscal years beginning after December 15, 2018, including the interim periods within those years, with early adoption permitted. Chugach will begin application of ASU 2016-02 and related updates on January 1, 2019. Chugach is continuing to evaluate existing leases and contracts to finalize the impact of these updates as both the lessee and lessor. Chugach expects that the impact will not be material to our recorded amounts of assets and liabilities or to our results of operations and cash flows, however we will be required to have extensive new disclosures.

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 will begin application of ASC 2016-13 on January 1, 2020. Adoption is not expected to 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 will begin application of ASU 2018-13 on January 1, 2020. Adoption is not expected to 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 will begin application of ASU 2018-15 on January 1, 2020. Adoption is not expected to 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. Level 1 also includes United States Treasury and federal agency securities, which are traded by dealers or brokers in active markets. 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, 2018 and 2017. Chugach's bond mutual funds, corporate bonds, and marketable certificates of deposit 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, 2018 or 2017.

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

December 31, 2017	Total	Level 1	Level 2	Level 3
Bond mutual funds	$ 8,109,242	$ 8,109,242	$ 0	$ 0
Corporate bonds	$ 248,335	$ 248,335	$ 0	$ 0
Certificates of deposit	$ 3,063,323	$ 3,063,323	$ 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, 2018, are as follows:

	Carrying Value	Fair Value Level 2
Long-term obligations (including current installments)	$ 458,997,331	$ 462,131,094

(5) Regulatory Matters

Gas Dispatch Agreement

Chugach and MEA entered into an agreement entitled, "Gas Dispatch Agreement" in which Chugach provides gas scheduling and dispatch services to MEA. The initial term of the agreement was April 1, 2016, through March 31, 2017. Chugach and MEA have entered into several extensions with the latest covering a period through March 31, 2020. The RCA approved this extension filing in February 2019.

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 SRF filings which resulted in a system demand and energy rate decrease of 3.0% effective July 1, 2017; an increase of 1.9% effective November 1, 2017; an increase of 0.4 % effective February 1, 2018; an increase of 0.3% effective May 1, 2018; an increase of 1.8% effective August 1, 2018; an increase of 2.7% effective November 1, 2018; an increase of 0.7% effective February 1, 2019; and an increase of 1.0% effective May 1, 2019.

Fuel and Purchased Power Rates

Chugach recovers fuel and purchased power costs directly from retail and wholesale customers through the fuel and purchased power rate adjustment process. Changes in fuel and purchased power costs are primarily due to fixed price or fuel price adjustment processes in gas-supply contracts. Other factors, including generation unit availability, also impact fuel and purchased power recovery rate levels.

The fuel and purchased power adjustment is approved on a quarterly basis by the RCA. There are no limitations on the number or amount of fuel and purchased power recovery rate changes. Increases in fuel and purchased power costs result in increased revenues while decreases in these costs result in lower revenues. Therefore, revenue from the fuel and purchased power adjustment process does not impact margins. Chugach recognizes differences between projected recoverable fuel and purchased power costs and amounts actually recovered through rates. The fuel cost under/over recovery on the balance sheet represents the net accumulation of any under- or over-collection of fuel and purchased power costs. A fuel cost under-recovery will appear as an asset on our balance sheet and will be collected from our members in subsequent periods. Conversely, a fuel cost over-recovery will appear as a liability on the balance sheet and will be refunded to members in subsequent periods.

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 is to facilitate discussion between all six Alaska Railbelt utilities and various stakeholders with an end goal of submitting to the RCA 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 fourth quarter of 2018, the utilities reviewed and adapted the memorandum of understanding with GDS (“GDS MOU”) with the RCA. The utilities are currently in discussions with non-utility stakeholders to include their input in the RRC formation process. In parallel, the utilities and American Transmission Corporation (ATC) are in discussions regarding the formation of a transmission-only utility. ATC, GVEA, HEA, ML&P, and Seward Electric System filed with the RCA for a Railbelt-wide Transco Certificate of Public Convenience (“CPCN”) on February 25, 2019. Chugach and MEA were not party to this filing. Currently our organization’s primary focus is on filing with the RCA for the transfer of the ML&P CPCN to Chugach, and we were unable to complete our due diligence on the Transco filing prior to the filing date. Chugach will intervene in the filing and intends on completing its due diligence of the Transco filing in the second quarter of 2019. Chugach cannot determine the materiality of any effect on its results of operations, financial condition, and cash flows until a business model and plan are adopted. The RCA initiated an order on March 15, 2019 requesting comments on proposed legislative language which would authorize the RCA to designate or develop an Electric Reliability Organization ("ERO").

In June 2016, in response to 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 write the standards. The final draft is expected to be presented to the Railbelt Utility Managers by March 31, 2019.

Cook Inlet Natural Gas Storage Alaska, LLC ("CINGSA")

CINGSA filed Tariff Advice Number 32-733 on April 30, 2018, to request adjustments to their base rates for firm natural gas storage service ("FSS") and interruptible gas storage service ("ISS"). Chugach has intervened in this case, and the RCA has suspended this filing into a docket. The RCA is expected to issue a decision by July 24, 2019.

On April 27, 2018, CINGSA filed a request with the RCA for advance determination of decisional prudence and assurance of cost recovery for what has been termed the Redundancy Project. Chugach participated in the regulatory docket opened to address this matter. On February 28, 2019, the RCA issued an order denying CINGSA's Redundancy Project petition, however, the RCA found CINGSA's proposal to restore an existing well prudent. The RCA closed the docket.

Regulatory Assets: Beluga Power Plant Unit No. 3 Overhaul and Cooper Lake Dredging Project

In June 2018, Chugach submitted petitions to the RCA for approval to create regulatory assets to amortize the costs for the overhaul of Beluga Unit No. 3 and for the Cooper Lake Power Plant Tailrace Dredging project. On August 27, 2018, the RCA authorized Chugach to create regulatory assets in the amount of $4.2 million for the overhaul of Beluga Unit No. 3 for amortization over a 26-month period beginning September 1, 2018, and $1.0 million for the Cooper Lake dredging project over a 16-month period beginning January 1, 2019.

Furie Agreement

On March 16, 2017, Chugach submitted a request to the RCA for approval of the agreement entitled, "Firm and Interruptible Gas Sale and Purchase Agreement between Furie Operating Alaska, LLC and Chugach Electric Association, Inc." ("Furie Agreement") dated March 3, 2017. As part of the filing, Chugach also requested RCA approval to recover both firm and interruptible purchases under the agreement and all attendant transportation and storage costs through its quarterly fuel and purchased power cost adjustment process.

The Furie Agreement provides Chugach with both firm and non-firm gas supplies over a 16-year period, with firm purchases beginning on April 1, 2023, and ending on March 31, 2033, and interruptible gas purchases available to Chugach immediately and ending on March 31, 2033. With respect to firm purchases beginning on April 1, 2023, and ending on March 31, 2033, the Furie Agreement provides an annual gas commitment by Furie to sell and Chugach to purchase approximately 1.8 Bcf of gas each year, which represents approximately 20% to 25% of Chugach's projected gas requirements during this period. The Furie Agreement also provides Chugach with additional purchase options, on a firm and interruptible basis. The initial price for firm gas is $7.16 per Mcf beginning April 1, 2023 and escalates annually rising to $7.98 per Mcf on April 1, 2032, the last year of the Furie Agreement.

On May 1, 2017, the RCA approved the Furie Agreement. The RCA also approved recovery of costs associated with the Furie Agreement through its fuel and purchased power cost adjustment process.

Beluga Parts Filing

On November 18, 2016, Chugach submitted a petition to the RCA for approval to create a regulatory asset that would allow Chugach to amortize and recover in rates the value of certain plant needed to support power production equipment located at the Beluga Power Plant.

Specifically, Chugach requested RCA approval to recover approximately $11.4 million in equipment that supports Beluga generation units. Chugach requested that it be permitted to amortize the value of this plant over a period of 30 months for plant associated with Units 1 and 2 (approximately $0.3 million), and 108 months for all other parts (approximately $11.1 million). The amortization periods are consistent with the proposed depreciation rates for the Beluga units contained in Chugach's depreciation study that was submitted to the RCA on September 30, 2016.

The RCA opened Docket Number U-16-092 to review the petition. The RCA approved the petition May 17, 2017, closing docket U-16-092(2).

Depreciation Study Update

In compliance with a previous order from the RCA (U-12-009(8)), Chugach submitted a 2015 Depreciation Study Update to the RCA, requesting approval of the depreciation rates resulting from the study for use in Chugach's financial record keeping and for establishing electric rates. The filing was submitted to the RCA on September 30, 2016. Chugach proposed changes to depreciation rates that would result in a $5.9 million reduction in annual depreciation expense. On a demand and energy rate basis, the impact was a 4.7% reduction to retail customers and a 4.6% reduction to Seward. The reductions on a total customer bill basis, which includes fuel and purchased power costs, were 3.2% and 1.9%, respectively. Chugach requested that the updated depreciation rates be implemented on July 1, 2017, for both accounting and ratemaking purposes.

On March 23, 2017, the RCA issued Order U-16-081(2) approving Chugach's proposed changes to its depreciation rates. The depreciation rates were approved as filed. The RCA required Chugach to file a new depreciation study by July 1, 2022, based on plant activity as of December 31, 2021.

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, Chugach is preparing an application and filing which will be submitted to the RCA. For more information concerning the potential ML&P Acquisition, see "*Note 16 – ML&P Acquisition.*"

(6) Utility Plant

Major classes of utility plant as of December 31 are as follows:

Electric plant in service:	2018	2017
Steam production plant	$ 101,141,201	$ 101,116,277
Hydroelectric production plant	34,342,490	33,659,129
Other production plant	288,086,243	287,765,474
Transmission plant	298,767,612	296,018,078
Distribution plant	328,766,590	315,862,812
General plant	55,308,981	55,164,994
Unclassified electric plant in service[1]	54,877,480	60,294,349
Intangible plant[1]	5,455,371	5,455,371
Beluga River Natural Gas Field (BRU Asset & ARO)	48,088,715	47,927,331
Other[1]	1,828,409	1,828,409
Total electric plant in service	1,216,663,092	1,205,092,224
Construction work in progress	17,272,307	17,952,573
Total electric plant in service and construction work in progress	$ 1,233,935,399	$ 1,223,044,797

[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:

	2018	2017
NRUCFC Capital Term Certificates	$ 6,095,980	$ 6,095,980
CoBank	2,405,407	2,819,307
Other	68,659	65,123
Total investments in associated organizations	$ 8,570,046	$ 8,980,410

(8) Deferred Charges and Liabilities

Deferred Charges

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

	2018	2017
Regulatory assets and deferred charges:		
Short-term debt issuance and reacquisition costs	$ 280,933	$ 386,892
Refurbishment of transmission equipment	86,420	95,679
Feasibility studies	194,122	237,425
Cooper Lake relicensing / projects	5,019,801	5,149,903
Fuel supply	1,702,759	1,801,970
Storm damage	258,952	453,166
Other regulatory deferred charges	471,558	719,563
Bond interest - market risk management	4,429,478	4,884,587
Environmental matters	933,469	978,820
Beluga parts and materials	9,341,355	10,696,210
Beluga Unit 3 major overhaul	2,726,259	64,493
Cooper Lake dredging	618,301	31,666
NRECA pension plan prepayment	6,484,132	7,204,591
ML&P acquisition & integration	4,953,291	0
Green Energy Program	46,577	0
Community Solar Project	121,017	0
Post-retirement benefit obligation	0	59,100
Total regulatory assets and deferred charges	$ 37,668,424	$ 32,764,065

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

		2018		2017
Regulatory assets and deferred charges:				
Cooper Lake dredging	$	618,301	$	0
Regulatory studies and other		35,575		201,775
ML&P acquisition & integration		4,953,291		0
Green Energy Program		46,577		0
Community Solar Project		121,017		0
Post-retirement benefit obligation		0		59,100
Total regulatory assets and deferred charges	$	5,774,761	$	260,875

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:

		2018		2017
Refundable consumer advances for construction	$	357,858	$	416,263
Estimated initial installation costs for meters		79,276		100,927
Post-retirement benefit obligation		327,700		732,200
Total deferred liabilities	$	764,834	$	1,249,390

(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, 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. At December 31, 2017, Chugach had $172,928,887 of patronage capital (net of capital credits retired in 2017), which included $166,880,163 of patronage capital that had been assigned and $6,048,724 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 2018 and in 2017. HEA's patronage capital payable, including the current portion classified as other current liabilities, was $3.9 million and $5.9 million at December 31, 2018 and 2017, respectively.

In an agreement reached in May of 2014 with MEA, capital credits retired to MEA are classified as patronage capital payable on Chugach's balance sheet. In December 2018, Chugach paid MEA $3.4 million of its patronage capital payable. MEA's patronage capital payable was $1.5 million and $4.9 million at December 31, 2018 and 2017, respectively.

The Second Amended and Restated Indenture of Trust ("Indenture") and the CoBank Second Amended and Restated Master Loan Agreement 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. There were only capital credit retirement payments authorized by our Board in 2018. Capital credit retirements authorized by our Board, less early retirements, were $2,631,928, and $3,001,426 for the years ended December 31, 2017, and 2016, respectively. With the exception of MEA's and HEA's patronage capital payable, the outstanding liability for capital credits authorized but not paid at December 31, 2018, 2017, and 2016 was $0, $57,036, and $2,014,080, respectively.

(10) Other Equities

A summary of other equities at December 31 follows:

	2018	2017
Nonoperating margins, prior to 1967	$ 23,625	$ 23,625
Donated capital	2,407,898	2,213,876
Unclaimed capital credit retirement[1]	12,521,402	12,415,752
Total other equities	$ 14,952,925	$ 14,653,253

[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:	2018	2017
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	58,500,000	63,000,000
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	141,833,331	147,999,998
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	52,500,000	56,250,000
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	81,000,000	88,000,000
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	38,000,000	40,000,000
2016 CoBank Note, 2.58% fixed rate note maturing in 2031, with interest and principal due quarterly beginning in 2016	37,164,000	40,356,000
Total long-term obligations	$ 458,997,331	$ 485,605,998
Less current installments	26,608,667	26,608,667
Less unamortized debt issuance costs	2,425,247	2,669,485
Long-term obligations, excluding current installments	$ 429,963,417	$ 456,327,846

Covenants

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

Chugach is also required to comply with the 2016 Credit Agreement, between Chugach and NRUCFC, KeyBank National Association, Bank of America, N.A., and CoBank, ACB dated June 13, 2016, governing loans and extensions of credit associated with Chugach's Commercial Paper Program, in an aggregate principal amount not exceeding $150.0 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, 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 of $145 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, 2018, mature as follows:

Year ending December 31	2011 Series A Bonds	2012 Series A Bonds	2016 CoBank Note	2017 Series A Bonds	Total
2019	$ 10,666,667	$ 10,750,000	$ 3,192,000	$ 2,000,000	$ 26,608,667
2020	10,666,667	10,750,000	3,420,000	2,000,000	26,836,667
2021	10,666,667	3,750,000	3,648,000	2,000,000	20,064,667
2022	10,666,667	3,750,000	3,876,000	2,000,000	20,292,667
2023	10,666,667	6,250,000	4,104,000	2,000,000	23,020,667
Thereafter	146,999,996	148,250,000	18,924,000	28,000,000	342,173,996
	$ 200,333,331	$ 183,500,000	$ 37,164,000	$ 38,000,000	$ 458,997,331

Lines of credit

Chugach maintains a $50.0 million line of credit with NRUCFC. Chugach did not utilize this line of credit in 2018 or 2017, and therefore had no outstanding balance at December 31, 2018 and 2017. The borrowing rate is calculated using the total rate per annum and may be fixed by NRUCFC. The borrowing rate was 3.75% at December 31, 2018, and 3.00% at December 31, 2017.

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 includes 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 will expire on June 13, 2021. The participating banks include NRUCFC, KeyBank National Association, Bank of America, N.A., and CoBank, ACB.

Our commercial paper can be repriced between one day and 270 days. Chugach is expected to continue to issue commercial paper in 2019, as needed.

Chugach had $61.0 million and $50.0 million of commercial paper outstanding at December 31, 2018 and 2017, respectively.

The following table provides information regarding 2018 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	$ 44.7	1.80%	July	$ 51.1	2.29%
February	$ 38.1	1.78%	August	$ 50.1	2.25%
March	$ 51.8	2.12%	September	$ 57.7	2.29%
April	$ 59.5	2.29%	October	$ 60.4	2.45%
May	$ 56.4	2.21%	November	$ 61.0	2.50%
June	$ 53.3	2.26%	December	$ 61.0	2.77%

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, 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. 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, and 2017 Series A bonds and the 2016 CoBank Note at December 31, 2018 (dollars in thousands):

	Maturing	Average Life (Years)	Interest Rate	Issue Amount	Carrying Value
2011 Series A, Tranche	2031	6.2	4.20 %	$ 90,000	$ 58,500
2011 Series A, Tranche	2041	11.2	4.75 %	185,000	141,833
2012 Series A, Tranche	2032	6.7	4.01 %	75,000	52,500
2012 Series A, Tranche	2042	14.2	4.41 %	125,000	81,000
2012 Series A, Tranche	2042	13.7	4.78 %	50,000	50,000
2017 Series A, Tranche	2037	9.2	3.43 %	40,000	38,000
2016 CoBank Note	2031	5.2	2.58 %	45,600	37,164
Total				$ 610,600	$ 458,997

(12) <u>Employee Benefit Plans</u>

<u>Pension Plans</u>

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, multi-employer plans. Chugach pays an hourly amount per eligible union employee pursuant to the collective bargaining unit agreements. In these master, multi-employer 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 multi-employer 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, 2018, 2017 and 2016 of $6.3 million, $5.9 million and $6.7 million, respectively. The rate and number of employees in all significant pension plans did not materially change for the years ended December 31, 2018, 2017 or 2016.

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 multi-employer 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]		
	2018	2017	2016	2018	2017	2016
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	$3.3	$3.2	$2.8	$2.6	$3.5
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, 2024.
[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 multi-employer 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, 2018, 2017, and 2016 were $5.1 million, $4.8 million, and $4.5 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, 2018, 2017, and 2016 totaled $2.7 million, $2.8 million, and $2.8 million, respectively.

Money Purchase Pension Plan

Chugach participates in a multi-employer 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, 2018, 2017 and 2016 were $137.3 thousand, $141.8 thousand and $132.3 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 $18,500 in 2018, $18,000 in 2017 and 2016, and allowed catch-up contributions for those over 50 years of age of $6,000 in 2018, 2017, and 2016. 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, 2018, and 2017 was $1,359,878 and $1,229,294, 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 $13.4 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 $6.3 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, 2018 (the most recent date for which information is available). Chugach's share of expenses was $5,867,455 in 2018, $6,452,898 in 2017, and $5,662,522 in 2016, and is included in purchased power in the accompanying financial statements.

(In thousands)	Total	Proportionate Share
Plant in service	$ 160,188	$ 48,697
Long-term debt	74,709	26,415
Interest expense	2,371	721

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, 2018 included $5,239,109, net of accumulated depreciation of $2,757,865, which represents Chugach's share of the Eklutna Hydroelectric Project. At December 31, 2017, plant in service included $4,123,105, net of accumulated depreciation of $2,597,999. 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. When MEA was an all-requirements wholesale customer, under net billing arrangements, Chugach reimbursed MEA for their share of the costs. Chugach's share of expenses was $416,237, $403,511, and $532,678 in 2018, 2017, and 2016, 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

On February 4, 2016, Chugach entered into an agreement entitled, "Purchase and Sale Agreement between ConocoPhillips Alaska, Inc. ("CPAI") and Municipality of Anchorage d/b/a Municipal Light & Power and Chugach Electric Association, Inc." The Purchase and Sale Agreement transfers CPAI's working interest in the BRU to Chugach and ML&P. The total purchase price was $148.0 million, with Chugach's portion totaling $44.4 million. Chugach's interest in the BRU is 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 is expected to provide greater fuel diversity.

Under the joint bid arrangement, Chugach's ownership of CPAI's working interest is 30% and ML&P's ownership is 70%. 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. On April 21, 2016, the acquisition was approved by the RCA and the transaction closed on April 22, 2016.

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.

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%.

The BRU acquisition costs were recorded as deferred charges on Chugach's balance sheet and totaled $1.5 million at December 31, 2016. Chugach requested that these costs be amortized based on units of production of the BRU and recognized as depreciation and amortization on Chugach's statement of operations. Chugach also requested approval to recover the deferred costs in the gas transfer price. The RCA issued an order combining the BRU cost recovery process and the request to create a regulatory asset into a single docket. On October 26, 2017, the RCA issued a final order accepting Chugach's filing and closing the docket, see *"Note 5 – Regulatory Matters – Beluga River Unit 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. As part of the BRU acquisition, Chugach acquired 30% of CPAI's underlift, which was 69,099 Mcf at acquisition and was in an overlift position of 198 Mcf and 8 Mcf at December 31, 2018 and 2017, 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.

The revenue generated by Chugach's interest in the BRU operations was primarily associated with the gas sold to ENSTAR, pursuant to the aforementioned contract, which expired December 31, 2017. Chugach recognized revenue from the BRU in the amount of $6.6 million and $2.8 million in December 31, 2017 and 2016, respectively.

Chugach records depreciation, depletion and amortization on BRU assets based on units of production. During 2018, Chugach lifted 1.2 Bcf resulting in a cumulative lift since purchase of 4.5 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 Regulatory Commission of Alaska ("RCA"). On December 28, 2018, Chugach also entered into an Eklutna Power Purchase Agreement, a Payment in Lieu of Taxes Agreement and a BRU Fuel Agreement ("Ancillary Agreements") with the MOA.

Pursuant to the APA, Chugach and the MOA will jointly submit applications to amend their respective CPCNs to permit Chugach to provide electric service in ML&P's legacy service territory. Additionally, Chugach and 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. 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.

The Eklutna Power Purchase Agreement, 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 MOA for a period of 35 years at specified fixed prices each year.

The Payment in Lieu of Taxes Agreement ("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 as 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.

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 Beluga River Unit 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.

(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 95.5% and 92.7% of total operating revenue during the year ended December 31, 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 $10,296,532 and $10,674,543 of unbilled retail revenue at December 31, 2018 and 2017, 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 3.3%, 3.4%, and 2.9% of our revenue during the year ended December 31, 2018, 2017, and 2016, 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 year ended December 31, 2018. Gas sales represented 3.0% and 1.4% of our revenue during the years ended December 31, 2017 and 2016, respectively. 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%, 0.9%, and 1.1% of our total operating revenue during the years ended December 31, 2018, 2017, and 2016, 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, 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%)**

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, 2017, and 2016 (in millions).

	Base Rate Sales Revenue			Fuel and Purchased Power Revenue			Total Revenue		
	2017	**2016**	**% Variance**	**2017**	**2016**	**% Variance**	**2017**	**2016**	**% Variance**
Retail	$ 122.5	$ 121.7	0.7 %	$ 75.6	$ 59.1	27.9 %	$ 198.1	$ 180.8	9.6 %
Wholesale	$ 2.1	$ 2.2	(4.5%)	$ 3.8	$ 2.8	35.7 %	$ 5.9	$ 5.0	18.0 %
Economy	$ 0.7	$ 0.5	40.0 %	$ 3.6	$ 0.8	350.0 %	$ 4.3	$ 1.3	230.8 %
Total Energy Sales	**$ 125.3**	**$ 124.4**	**0.7 %**	**$ 83.0**	**$ 62.7**	**32.4 %**	**$ 208.3**	**$ 187.1**	**11.3 %**
Wheeling	$ 0.0	$ 0.0	0.0 %	$ 7.7	$ 5.7	35.1 %	$ 7.7	$ 5.7	35.1 %
Gas Sales	$ 0.0	$ 0.0	0.0 %	$ 6.6	$ 2.8	135.7 %	$ 6.6	$ 2.8	135.7 %
Other	$ 2.0	$ 2.0	0.0 %	$ 0.1	$ 0.1	0.0 %	$ 2.1	$ 2.1	0.0 %
Total Miscellaneous	**$ 2.0**	**$ 2.0**	**0.0 %**	**$ 14.4**	**$ 8.6**	**67.4 %**	**$ 16.4**	**$ 10.6**	**54.7 %**
Total Revenue	**$ 127.3**	**$ 126.4**	**0.7 %**	**$ 97.4**	**$ 71.3**	**36.6 %**	**$ 224.7**	**$ 197.7**	**13.7 %**

c. Contract Balances

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

	December 31, 2018	December 31, 2017
Contract receivables, included in accounts receivable	$ 27,179,031	$ 31,215,494
Contract asset	0	4,921,794
Contract liabilities	5,196,426	1,581,481

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

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 assets and liabilities balances during the year ended December 31, 2018, are as follows:

	Contract assets Increase (decrease)	Contract liabilities (Increase) decrease
Revenue recognized that was included in the contract liability balance at the beginning of the period	$ 0	$ (1,581,481)
Revenue recognized and transferred from contract asset at the beginning of the period	(4,921,794)	0
Cash received, excluding amounts recognized as revenue during the period	0	5,196,426
Net change	$ (4,921,794)	$ 3,614,945

d. Transaction Price Allocated to Remaining Performance Obligations

The table below includes estimated revenue to be recognized in 2019 related to performance obligations that are unsatisfied (or partially unsatisfied) at December 31, 2018.

	2018
Credit balances	$ 1,808,131
Fuel cost over-recovery	3,388,295

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) 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, 2018, 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. On September 15, 2014, the RCA approved an amendment to the Hilcorp gas purchase agreement extending gas delivery and subsequently filling 100% of Chugach's needs through March 31, 2019. On September 8, 2015, the RCA approved another amendment to the Hilcorp gas purchase agreement extending the term of the agreement, thus filling up to 100% of Chugach's needs through March 31, 2023. The total amount of gas under this contract is estimated to be 60 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.

The RCA approved a natural gas supply contract with Marathon Alaska Production, LLC ("MAP") effective May 17, 2010. This contract includes two contract extensions that were exercised in 2011. Effective February 1, 2013, this gas purchase agreement was assigned to Hilcorp, who purchased MAP's assets in Cook Inlet. This contract began providing gas April 1, 2011, and will expire March 31, 2023. The total amount of gas under contract is currently estimated up to 49 Bcf. These contracts fill 100% of Chugach's needs through March 31, 2023. All of the production is expected to come from Cook Inlet, Alaska.

In 2018, 75% of our electric energy was generated from gas, with 4% generated at the Beluga Power Plant and 90% generated at SPP. In 2017, 81% of our power was generated from gas, with 14% generated at Beluga and 81% 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:

	2018	2017	2016
Hilcorp	90.9 %	88.4 %	56.9 %
Furie	0.6 %	5.3 %	0.0 %
ConocoPhillips (COP)	0.0 %	0.0 %	32.0 %
AIX Energy	0.0 %	0.1 %	0.7 %
ENSTAR	4.9 %	3.4 %	4.7 %
Harvest (Hilcorp) Pipeline	3.6 %	2.1 %	3.2 %
Miscellaneous	0.0 %	0.7 %	2.5 %

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 November 5, 2018. MEA received a retirement payment of $3.4 million, decreasing their payable to $1.5 million at December 31, 2018. 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 2018 and 2017, and $2.0 million of HEA's patronage capital was reclassified to a current payable under other current liabilities leaving $1.9 million in long term patronage capital payable at December 31, 2018. At December 31, 2017, total patronage capital payable to HEA and MEA was $5.9 million and $4.9 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 $0.000978, effective July 1, 2018. 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 $7,270,099 and $4,206,223 for this charge at December 31, 2018 and 2017, 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 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. On August 21, 2018 the EPA moved forward with the Affordable Clean Energy ("ACE") proposed regulation rule which would establish emission guidelines for states to develop plans to address GHG emissions from existing coal-fired power plants. The ACE rule would replace the 2015 Clean Power Plan ("CPP"), which the EPA has proposed to repeal because it exceeded EPA authority. The CPP was stayed by the U.S. Supreme Court and has never gone into effect. The comment period for the proposed ACE rule has closed and the EPA is currently reviewing and responding to the comments received. When the final rule is promulgated it is certain to face legal challenge. The proposed Affordable Clean Energy regulation, 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.

(19) Quarterly Results of Operations (unaudited)

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

2017 Quarter Ended

	Dec. 31	Sept. 30	June 30	March 31
Operating Revenue	$ 62,934,930	$ 49,405,607	$ 51,554,650	$ 60,793,482
Operating Expense	52,778,100	44,850,594	48,365,752	51,223,238
Net Interest	5,575,665	5,569,961	5,535,031	5,520,479
Net Operating Margins	4,581,165	(1,014,948)	(2,346,133)	4,049,765
Nonoperating Margins	157,569	207,513	201,916	211,877
Assignable Margins	$ 4,738,734	$ (807,435)	$ (2,144,217)	$ 4,261,642