

**CHUGACH**

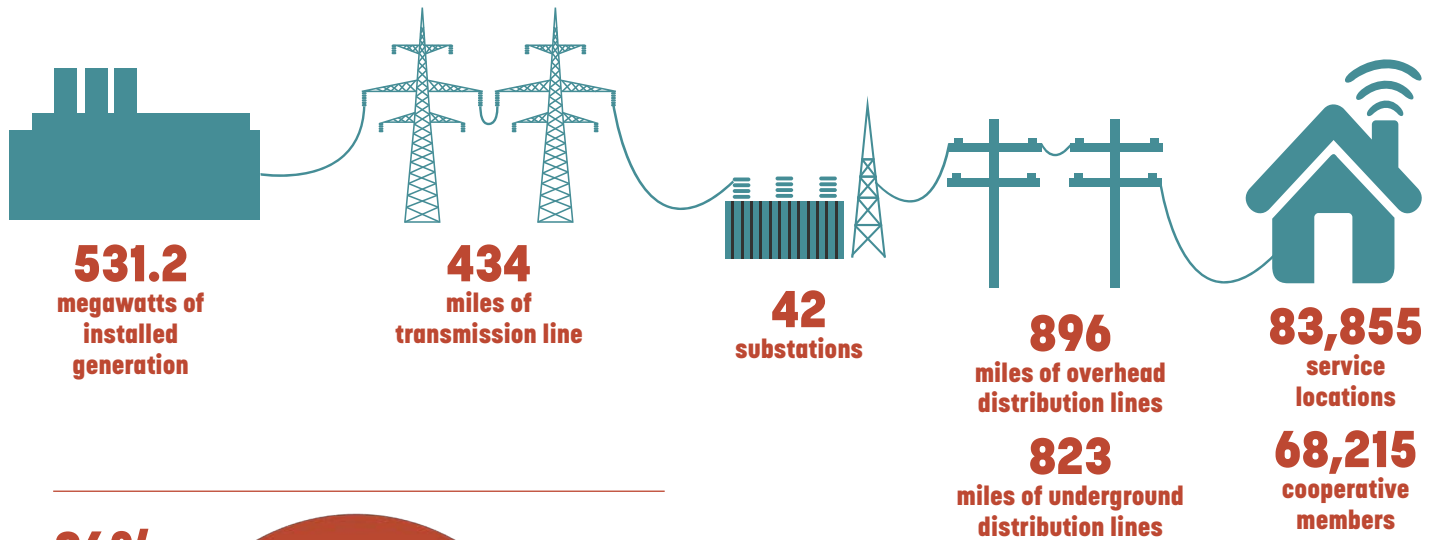
Annual  
Report  
2016

POWERING YOUR COOPERATIVE

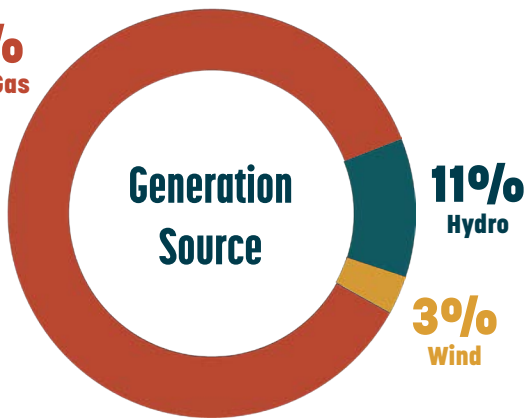


# Chugach stats

NOT-FOR-PROFIT • MEMBER-OWNED • ELECTRIC COOPERATIVE



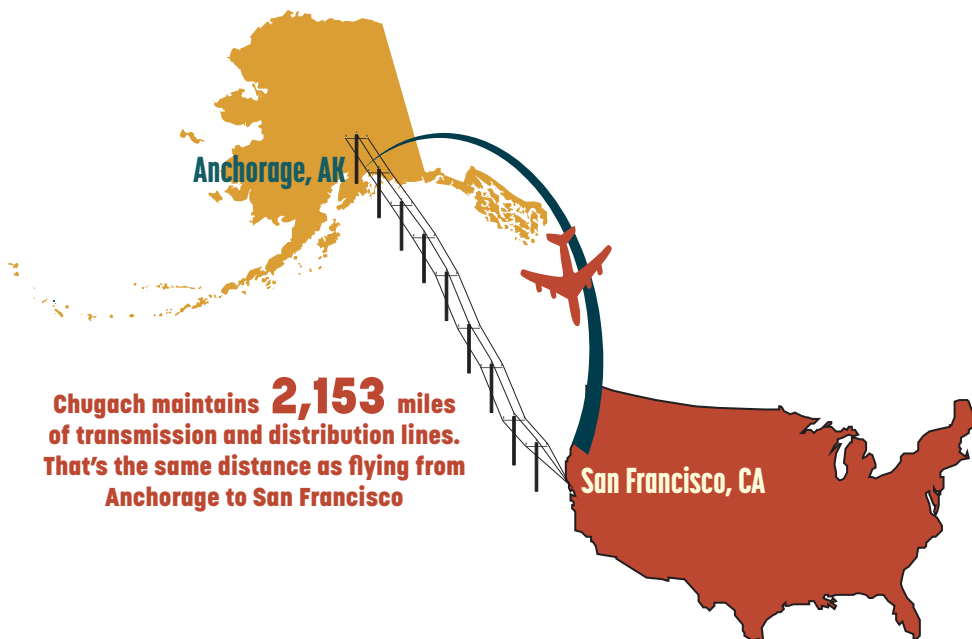
**86%**  
Natural Gas



## Outage statistics

**1.47**  
average outage hours per customer in 2016, down from 1.83 in 2015

**2.78**  
5-year average outage hours per customer, down from 2.90 in 2015



## Incorporation

Chugach Electric Association was incorporated in Alaska, March 1, 1948, with funding under the Rural Electrification Act of 1936, as amended. In 1991, Chugach refinanced and paid off its federal debt, leaving the REA program. Chugach remains a cooperative and ranks among the largest of the more than 900 electric cooperatives in the nation.

## Equal Employment Opportunity

It is a policy of Chugach Electric Association, Inc., to recruit, hire, train, promote and compensate persons without regard to race, color, religion, national origin, sex, marital status, pregnancy, parenthood, physical or mental disability, veteran's status, age or any other classification protected by applicable federal, state or local law.

# To our members

I always enjoy the opportunity to look back on the good work done by Chugach Electric Association, one of Alaska's largest electric utilities. It's been a busy year with major accomplishments including the purchase of a one-third interest in the Beluga River natural gas field, and the progress of a power pooling and economic dispatch agreement with some of our partners in the Railbelt. The level of cooperation between the six Railbelt utilities continues to improve and progress, and the end result is better service for Alaska electric utility customers overall.

Recently, the board passed a resolution adopting sustainability as a business philosophy. Often referred to as the Triple Bottom Line, it means we consider not just economics, but the social and environmental implications of projects and initiatives. We believe Chugach's role is to be a leader in long-term, sustainable energy production for Alaskans, and we will be using the sustainability philosophy to that end. We will ask ourselves, what is best for the community; what is best for the environment in terms of sustainable practices and the reduction of environmental impacts; as well as evaluating financial performance.

In 2016, we saw a change in leadership at Chugach. We said goodbye to Brad Evans, who retired after serving eight years as CEO. About mid-summer, Lee Thibert, a 30-year Chugach employee, took over that leadership role. Our goal was a seamless transition with no negative impacts to the organization or the business, and I am happy to report we achieved that goal. We are fortunate to have that continuity of leadership with two highly-qualified people.

Serving on the board of directors for Chugach is a privilege and an honor. Elected by you, the members, board members take our jobs of setting policy and providing direction to the CEO very seriously. Every decision made involves considering how it will impact our members, and we appreciate your engagement and feedback in how Chugach is operating and the direction we are heading.



**Janet Reiser**  
*Board Chair*



*2016 Chugach Board of Directors L to R: Sisi Cooper, Treasurer; Bettina Chastain, Director; Janet Reiser, Chair; Bruce Dougherty, Secretary; Harry Crawford, Director; Jim Henderson, Director and Susan Reeves, Vice Chair. Bruce Dougherty resigned from the board in December 2016. The board appointed Stuart Parks to fill the vacant position in January 2017.*

# Our management team



**Lee Thibert**

*Chief Executive Officer*

Our commitment to providing safe, reliable, competitively-priced energy is unwavering, and we never lose sight of that mission. I am pleased to bring you this annual report, and reflect on some of the highlights of the past year.

One of the most exciting and important events was the purchase of ConocoPhillips' one-third working interest in the Beluga River natural gas field by Chugach and Municipal Light & Power (ML&P). The deal is expected to save Anchorage electric utility ratepayers millions of dollars, while supplying a significant portion of our natural gas needs over the next two decades. This purchase followed our joint building of the Southcentral Power Project with ML&P (operational in 2013), and we know there is more we can do together to find economies of scale and save money for all electric utility ratepayers.

Working with ML&P and Matanuska Electric Association (MEA), we made significant strides in the power pooling efforts. The three utilities signed an agreement to jointly dispatch our energy resources which reduces the cost of power, reduces gas usage, and reduces CO<sub>2</sub> emissions. Reducing costs in difficult economic times is what our members expect and deserve, and we are pleased to report this progress.

You'll read about a number of other exciting projects at Chugach including the opening of a new substation, bringing new technology to our dispatch center which hadn't been upgraded in over 30 years, and significant progress on installation of our new state-of-the-art meters which dramatically improve outage response. Safety is a priority for Chugach, and we also had a number of safety-related achievements in 2016.

I want to say thank you to our incredible team of employees whose hard work and dedication are key to the success of serving our members.



*L to R: Arthur Miller, Executive Manager, Regulatory & External Affairs; Connie Owens, Manager Executive Office; Brian Hickey, Senior Vice President System Operations; Lee Thibert, Chief Executive Officer; Mark Fouts, Executive Manager Fuel & Corporate Planning; Sherri Highers, Vice President Finance and Administration & CFO; Tyler Andrews, Vice President Member & Employee Services; Paul Risse, Senior Vice President Production & Engineering*

# Year in review

## **Hane Substation finished**

The construction of Hane Substation was completed, after system studies identified it in a plan to meet projected load growth and improve reliability. Hane is unique in that it is the second Chugach distribution substation fed directly from the 138kV transmission system. The area fed by the Hane Substation extends to Abbott Road on the north, Huffman Road on the south, west to the New Seward Highway and east to Elmore Road. Approximately 30 commercial customers, including Hanshew Middle School, and 3,000 residential customers, are fed by this substation while relieving heavily loaded substations in the vicinity.



*Chugach board members Sisi Cooper, Susan Reeves and Harry Crawford joined CEO Lee Thibert, Board Chair Janet Reiser and Project Manager Jon Sinclair for a ribbon cutting ceremony in October at the new Hane Substation.*



*The new substation control structure lowered into the Girdwood Substation.*

## **Girdwood Substation**

Chugach replaced the structure that houses the substation controls in the Girdwood Old Townsite. The existing structure had reached the end of its useful life and needed to be replaced. The project cost was \$1 million and was part of Chugach's five-year capital improvement plan. Two planned outages were part of the replacement project, and Chugach worked to notify the Girdwood community well in advance of the project work.

## **New power transformer for Baxter Substation**

Chugach modified its distribution system in East Anchorage to ensure reliable service to customers after an inspection determined that one of the two transformers at the Debarr Substation had reached the end of its useful life. Chugach shifted some of the Debarr load to the Baxter Lake Substation where an additional transformer was installed in an available bay. The new transformer also provides redundancy for the system on the east side of Anchorage. Final commissioning of the new equipment at Baxter Lake will be done in the spring of 2017.



*A new substation transformer was installed at the Baxter Substation.*

### ***Beluga River purchase***

Chugach partnered with ML&P to purchase ConocoPhillips' one-third working interest in the Beluga River natural gas field in Cook Inlet. The final agreement transferred 70 percent ownership of the ConocoPhillips' interest to ML&P and 30 percent to Chugach. The deal is estimated to save the residents of Anchorage millions of dollars and supply a significant portion of the utilities' gas needs over the next two decades. Chugach sees the Beluga River ownership as an opportunity to safely deliver efficient, affordable energy to its members while supplying low-cost and reliable supplies of natural gas. The deal was approved by the Regulatory Commission of Alaska in April 2016.



### ***Dispatch Center gets a facelift***

Chugach's dispatch center got a major overhaul in 2016, designed to get real-time data and information to make the system more efficient and responsive. The static mimic board, in place since 1984, was replaced with a video wall made of 36 individual monitors. These monitors allow for greater flexibility for displaying various attributes of the system. With a few mouse clicks, the board can be reconfigured to show anything from an overall system layout, to a single substation. Displays can also include weather maps, security cameras, and real-time system conditions. During outages, specific areas can be displayed within seconds, easing the restoration process.



### ***AMI meters***

Good progress was made on the installation of Chugach's new, state-of-the-art meters. As part of ongoing system improvements, installation of the Advanced Metering Infrastructure (AMI) meters began in the summer of 2015. In 2016, Chugach installed 42,000 meters, which brought the total AMI count to over 53,000 meters. The AMI meters provide secure two-way communication which allows for the safe and efficient collection of meter reading with no required driving. AMI meters automatically notify Chugach of an outage, which makes restoration times much quicker. Full implementation of the AMI meters is expected to be complete by the end of summer 2017.

### ***Undergrounding effort makes progress***

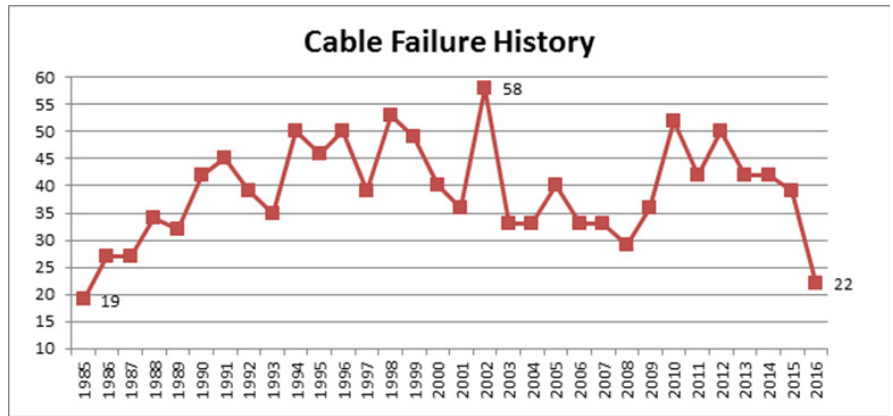
As part of a requirement in the Anchorage Municipal Code, Chugach spends on average \$3.6 million annually to underground existing overhead lines. One such project, Heritage Heights, was completed in 2016, and several others were started including Tudor Road west of Old Seward Highway; Old Seward Highway south of Tudor Road; Dowling Road from Lake Otis to Elmore; and the intersection of Lake Otis and Abbott. When possible, Chugach works with state and municipal road projects to take advantage of the construction opportunity to underground lines at the same time those projects are happening, saving time and money.



*Undergrounding work in progress along Klatt Road*

### 2016 saw lowest number of cable failures since 1985

Chugach has a comprehensive rehabilitation program for its underground cables, and it's showing great results. As part of the cable management program, in 2016, Chugach completed five loop closure projects, five cable replacement projects, and 23 cable injection projects, rehabilitating over 45,000 feet of cable. As a result, the number of cable failures on the distribution system was the lowest since 1985, with just 22. Reducing cable failures is important because it reduces the number of unscheduled outages, and saves money.



### Chugach achieves safety record

Safety is a key priority at Chugach, and 2016 was an excellent year for safety at the cooperative. Since 2000, 2016 had the fewest lost-work days in 17 years, with 15 days. Additionally, our injury rate (2.88) is below the five-year national average (2.94) for the Electric Power sector for the second year in a row. In our business we have a variety of hazards that must be managed on a day-to-day basis, and our safety performance confirms that we are continuing to take the right actions to keep these hazards from resulting in injury. Our goal is to make sure our employees go home safely each day.



Chugach staff accepted the Governor's Innovation in Safety Award at the 35th Annual Alaska Governor's Safety & Health Conference.

### Chugach wins Governor's Innovation in Safety Award

Chugach Electric was presented with the Governor's Innovation in Safety Award for a product conceived and designed by Chugach employees. The award was announced at the 35th Annual Alaska Governor's Safety & Health Conference at the Dena'ina Center in Anchorage. The Innovation in Safety Award is presented to a company or group that demonstrates excellence in innovation in safety and health systems that protect employees. Chugach was recognized for the Corflo Reel, which is used to deploy up to 125 feet of heavy casing used to protect electrical conductors during temporary power service. The invention was recognized for increasing safety for linemen and creating a more efficient process.

### Chugach members elect directors

The Chugach Annual Meeting was held May 19. Members elected Bruce Dougherty and Susan Reeves to four-year terms on the Chugach Board. A total of 6,329 votes were cast of the 68,937 members of record. Of those votes, 2,590 were cast electronically.



Anchorage Mayor Ethan Berkowitz was a guest speaker at the 2016 Annual Meeting.

### ***Innovative Services Committee***

As energy efficiency improves across all sectors and load growth levels off, it is important to broaden the spectrum of Chugach's service offerings. In an effort to address this, the Innovative Services Committee was formed to identify alternative revenue and efficiency sources for Chugach. In November, the committee met for the first time to discuss roles, rules, goals and deliverables. The committee will be considering a variety of offerings from bandwidth services to providing security lighting. The interdepartmental committee is comprised of employees from Member Services, Information Services, Safety, Communications, and Operations and Maintenance. The committee's goal is to present a prioritized list of service offerings in 2017.



### ***Member Appreciation Week***

More than 700 Chugach members visited the Chugach campus during Member Appreciation Week in October. The week serves as an opportunity for Chugach to show appreciation for members and familiarize them with some of the work done at the member-owned cooperative. Highlights of the week included activities, demonstrations, tours, and giveaways. On the final day, Chugach hosted a hot dog BBQ and rides in the 100-foot bucket truck for members and employees. Member Appreciation Week is held each year in conjunction with Energy Awareness and National Cooperative Month.



### ***Tours educate future workforce***

Dozens of Chugach members had the opportunity to tour the Southcentral Power Project (SPP) and learn more about the most fuel-efficient power plant in Alaska. Tours of SPP are offered during Member Appreciation Week and on occasion throughout the year as a way to help educate the public and promote career opportunities for young people. Several student groups—both high school and college—got a chance to visit the plant, understand how it operates, and see how it fits into Chugach's energy portfolio.







*In June, Chugach received the newest and tallest member of our truck fleet. A 100-foot bucket truck was rolled out and put to use. The truck makes work safer for linemen who can access higher jobs without having to climb up power poles.*

# Protecting the environment

## ***Power Pooling saves money and reduces greenhouse gas emissions***

Chugach joined Railbelt partners ML&P and MEA in signing The Power Pooling and Joint Dispatch Agreement at the end of the year. Signing of the agreement solidifies work of the utilities in utilizing economic dispatch to save money and reduce greenhouse gas emissions. By running the most efficient units first, regardless of location or ownership, the utilities estimate the arrangement will jointly save \$12 million to \$16 million a year in fuel, operations and maintenance costs, and reduce CO<sub>2</sub> emissions by 90,000 to 120,000 tons a year. The utilities made an informational filing to the Regulatory Commission of Alaska, and will request formal approval in 2018. Other utilities in the Railbelt are looking at opportunities to join the power pooling effort.



## ***Power Pledge Challenge teaches energy use to Alaska students***

Chugach partnered with several Alaska electric utilities and 15 Alaska middle schools for the 2016 Power Pledge Challenge. The initiative, which brings energy lessons into classrooms, is aimed at helping youth better understand energy use. Students complete an activity from AK EnergySmart and learn how to calculate energy use in their homes. The goal is to build future consumers who can make informed energy choices and help build sustainable communities. More than 2,200 middle school students from across the state took part in the program.

## ***Chugach celebrates Earth Day***

Joining the national theme of *Trees for the Earth*, Chugach celebrated Earth Day with members, offering information and prizes in our lobby. We

handed out wildflower seed packets, gave out LED light bulbs to members who filled out paperless billing pledge forms, and held a contest for those already enrolled in paperless billing. Recognizing we all have a role in keeping our planet healthy, members were energized by the celebration. We had dozens of new enrollments in paperless billing and many pledges to remain in the paperless program.



*In 2016, Chugach recycled 12,500 pounds of electronic waste (computers, screens, electronic equipment, light bulbs, and batteries) diverting this waste from the solid waste landfill.*



# Treasurer report

As a cooperative, our bottom line, or revenues in excess of current costs, is called margins. Chugach's 2016 margins totaled \$5.8 million. This was a decrease from our margin performance in 2015 of \$6.5 million, however, it was a slight increase from our 2016 amended budget, which projected margins of \$5.5 million.

Total energy sales to retail, wholesale and economy customers were 1,197,083 megawatt hours compared to 1,575,951 in 2015. Total revenue was \$197.7 million, down from \$216.4 million in 2015 and down from the 2016 amended budget of \$211.2 million. The decrease in sales and sales revenue compared to prior year was primarily due to the expiration of both the interim wholesale contract with MEA and the economy energy contract with Golden Valley Electric Association, Inc. (GVEA). The decrease in sales and sales revenue compared to budget was due to lower than budgeted retail and wholesale energy sales primarily caused by warmer weather. Through diligent monitoring and expense management, we were able to offset lower energy sales revenue to achieve margins higher than the amended budget. We ended the year with a margins-for-interest-to-interest ratio of 1.27, well above our indenture metric of 1.10 and an equity-to-total-capitalization ratio at 29.5 percent.

In 2016, Chugach continued to utilize its Commercial Paper Program for working capital needs throughout the year. We took advantage of extremely low short-term interest rates averaging 0.66 percent due in part to Chugach's ratings. We maintain a rating from Standard & Poor's Rating Services (S&P) and Fitch Ratings (Fitch) of "A-" (Stable) and "A" (Stable), respectively. S&P and Moody's Investors Service (Moody's) currently rate our commercial paper at "A-1" and "P-2", respectively. In 2016, citing strong financial performance, adequate total liquidity, ample generation, growing number of local gas providers, supportive regulation and the preservation of financial results despite the planned loss of our two largest customers, S&P and Moody's affirmed our current ratings.



**Sisi Cooper**  
Treasurer



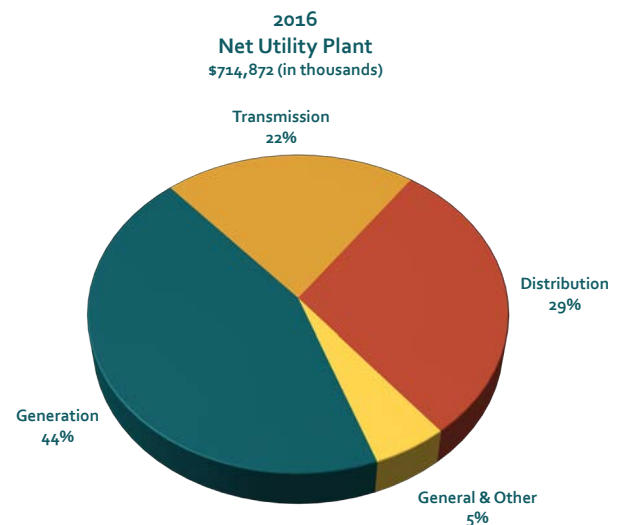
Chugach continued to invest in utility plant while successfully managing debt. We continued to repay existing debt and secured additional financing to complete a joint purchase with ML&P, acquiring a 10 percent working interest in the Beluga River natural gas field. Chugach's portion of the purchase totaled \$44.4 million. The intent of this purchase is to reduce the cost of electric service to members by securing an additional long-term supply of natural gas to meet on-going generation requirements.

## Financial results

### Consolidated Balance Sheets as of December 31 (in thousands)

Assets	2016	2015
Net Utility Plant	\$ 714,872	\$ 674,876
Other Property & Investments	14,206	12,182
Current Assets	81,937	81,444
Deferred Charges, net	25,141	16,812
<b>Total Assets</b>	<b>\$ 836,156</b>	<b>\$ 785,314</b>

Liabilities, Equities and Margins	2016	2015
Equities and Margins	\$ 185,516	\$ 181,637
Long-Term Obligations	442,890	446,228
Current Liabilities	134,396	90,148
Long-Term and Deferred Liabilities	73,354	67,301
<b>Total Liabilities, Equities and Margins</b>	<b>\$ 836,156</b>	<b>\$ 785,314</b>



## Consolidated Statements of Operations *(in thousands)*

	2016	2015
Operating revenues	\$ 197,748	\$ 216,421
Fuel	54,779	66,535
Production	15,809	16,886
Purchased power	15,775	19,600
Transmission	5,591	6,288
Distribution	13,992	14,090
Consumer accounts	6,074	6,118
Administrative, general and other	22,888	23,623
Depreciation and amortization	36,233	35,652
Total operating expenses	171,141	188,792
Interest expense, net	21,401	21,814
Net operating margins	5,206	5,815
Total nonoperating margins	608	688
Assignable margins	\$ 5,814	\$ 6,503

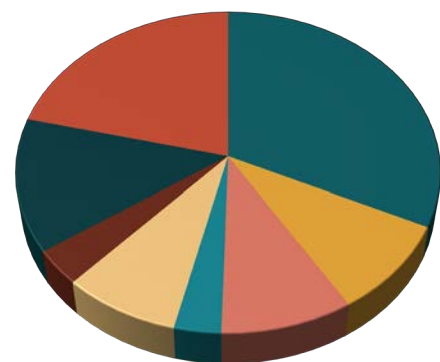
## Consolidated Statement of Changes in Equities and Margins *(in thousands)*

Balance, January 1, 2016	\$ 181,637
Assignable margins	5,814
Retirement/net transfer of capital credits	(3,265)
Unclaimed capital credit retirements	1,176
Memberships and donations received	154
Balance, December 31, 2016	\$ 185,516

## Consolidated Statements of Cash Flows *(in thousands)*

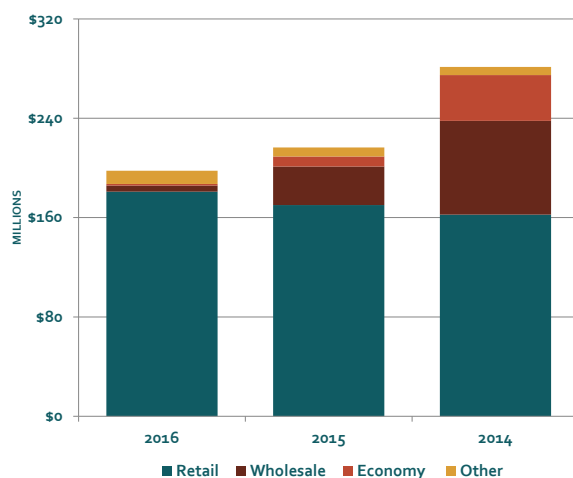
	2016	2015
Cash flows from operating activities:		
Assignable margins	\$ 5,814	\$ 6,503
Adjustments to reconcile assignable margins to net cash provided by operating activities:		
Depreciation and amortization	41,221	40,042
Allowance for funds used during construction	(188)	(143)
Other	1,246	471
(Increase) decrease in assets:	(15,422)	8,907
Increase (decrease) in liabilities:	(177)	(3,684)
<b>Net cash provided by operating activities</b>	<b>\$ 32,494</b>	<b>\$ 52,096</b>
Cash flows from investing activities:		
Investment in marketable securities	(10,580)	0
Investment in Beluga River Unit	(44,404)	0
Proceeds from capital grants	1,022	2,395
Extension and replacement of plant	(36,984)	(35,094)
Other	1,458	351
<b>Net cash used in investing activities</b>	<b>\$ (89,488)</b>	<b>\$ (32,348)</b>
Cash flows from financing activities:		
Net increase (decrease) in short-term obligations	48,200	(1,000)
Proceeds from long-term obligations	45,600	0
Repayments of long-term obligations	(48,182)	(23,889)
Other	422	4,403
<b>Net cash provided by (used in) financing activities</b>	<b>\$ 46,040</b>	<b>\$ (20,486)</b>
Net change in cash and cash equivalents	(10,954)	(738)
Cash and cash equivalents at beginning of period	15,627	16,365
Cash and cash equivalents at end of period	\$ 4,673	\$ 15,627

2016  
Total Operating Expenses  
\$171,141 (in thousands)

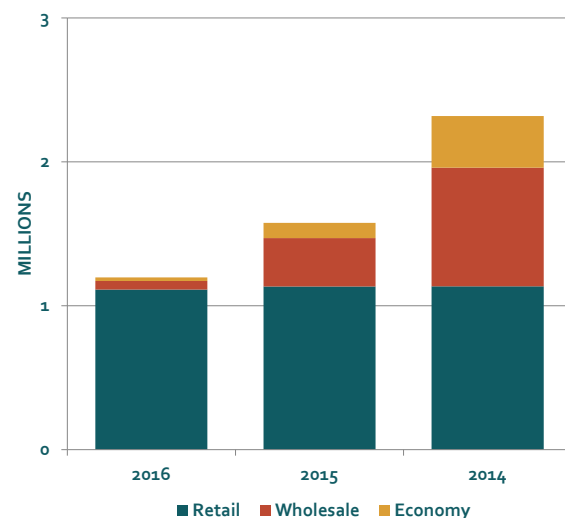


■ 32% Fuel  
■ 9% Purchased power  
■ 9% Production  
■ 3% Transmission  
■ 8% Distribution  
■ 4% Consumer accounts  
■ 14% Administrative, general and other  
■ 21% Depreciation and amortization

Revenue



MWh Sales



# Investing in the community



Chugach and its employees believe in giving back to the community and supporting organizations that strengthen where we live, work, and play. Chugach employees are active volunteers and support numerous Alaska non-profits by donating their time, treasure, and talent. Below is a list of some of the organizations supported by Chugach employees.

- Alaska Public Media
- Alaska Run For Women
- American Lung Association
- Anchorage Rescue Mission
- Anchorage Symphony Orchestra
- AWAIC
- Bean's Cafe
- Boys & Girls Clubs Alaska
- Brother Francis Shelter
- Covenant House
- Food Bank of Alaska
- Lutheran Social Services
- Mable T. Caverly Center
- Movember Foundation
- Salvation Army
- Special Olympics
- Tears Foundation
- United Way
- Wounded Warrior Program



## Corporate Information

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## Investor Information

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## Independent Auditor

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# CHUGACH

A Touchstone Energy® Cooperative