

# Chugach Electric



Annual Report  
2000

## Contents

2000 The Year in Review . . . . .	1
General Manager's Report . . . . .	2
President's Report . . . . .	3
Board of Directors . . . . .	4
Treasurer's Report . . . . .	5-7
Chugach Power Sales at a Glance . . . . .	8
Financial Statements . . . . .	9-11
Alternative Generation. . . . .	12
Retail Services . . . . .	13
Transmission & Distribution Network Services . . . . .	14
Finance & Energy Supply. . . . .	15
Generation Resources. . . . .	16
Key Comparisons . . . . .	17
The Railbelt System. . . . .	back cover

## Corporate Mission

Chugach's mission is to maximize the value its customers receive by safely providing competitively priced, reliable energy and services through innovation, leadership and prudent management.

## Corporate Vision

Be the customer-preferred provider of reliable utility services in regulated and competitive Alaskan markets.

## 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 nearly 1,000 electric cooperatives in the nation.

## Personnel Policy

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

## Chugach Snapshot

Chugach provides retail service to approximately two-thirds of the homes and businesses in the Municipality of Anchorage and wholesale and economy energy sales to other utilities throughout Alaska's Railbelt region.

## On the Cover

Chugach is a utility with a long history of providing reliable, affordable power for customers from traditional generation sources. However, Chugach is also keenly aware of new technologies that may be appropriate for individual consumers. Usually, about 85 to 90 percent of the kilowatt-hours Chugach sells each year originate by burning natural gas, with the balance coming from hydroelectric projects. In 2000, Chugach demonstrated its long-term commitment to these traditional resources by undertaking a repowering of Beluga Unit No. 6 and a complete rebuild of the Cooper Lake hydro project. Chugach also dedicated the nation's largest commercial fuel cell project, and participated in a study of microturbines. For more on Chugach's investigation of alternative generation technology, see page 12.

# 2000 The Year in Review



In late January and early February, storms dropped heavy snow across Southcentral Alaska, triggering avalanches that damaged the Chugach system and caused outages for customers. Later in the year, the Federal Emergency Management Agency reimbursed Chugach for more than \$1 million in storm-related costs.

The annual meeting was held April 27, and 144 members registered for the event. More than 16 percent of the 56,856 members of record voted in the accompanying election, in which Chris Birch and Jeff Lipscomb were elected to 3-year terms on the board and a package of bylaw changes was approved.

Despite Chugach's continuing efforts, the Alaska Legislature adjourned without taking any significant action on electric utility restructuring in the state.

In June, new labor agreements went into effect for Chugach employees in the three bargaining units represented by the International Brotherhood of Electrical Workers. The new 3-year contracts contain provisions for annual wage increases that can range from 1 to 4 percent, as well as work rule modifications that will allow Chugach to operate more efficiently. All three contracts expire June 30, 2003.

Several Chugach rate-related issues were before the Regulatory Commission of Alaska in 2000. Following up on a settlement agreement with its wholesale customers, Chugach resolved the 1996 test year, filed similar data for 1997, and compiled much of the test-year data for 1998. The RCA had ordered Chugach and other utilities to prepare general rate cases that were to be filed by August. As the deadline approached, the Commission granted a 1-year extension and said Chugach should base its filing on 2000 test-year data.



Chugach was involved in a number of major generation projects during the year. These included the repowering of Beluga Unit No. 6, the rebuild of the Cooper Lake hydroelectric plant, and the dedication of the world's largest commercial fuel cell as part of a utility grid.

NetPay, the program Chugach developed that allows customers to view and pay their bills online, proved popular with others as well. By year's end, Chugach was in discussions with several other utilities interested in purchasing the system and associated services from Chugach.

*Heavy snow and avalanches from storms in late January and early February downed power lines and cut service to a number of Chugach customers. The most serious damage was done to Chugach's 115-kilovolt power line which provides the electrical link between Anchorage and the Kenai Peninsula.*



# General Manager's Report



*Eugene M. Bjornstad*

Gene Bjornstad  
General Manager

In 2000, we accomplished a number of key activities that will make us a better utility in the future.

The largest single project of the year was the repowering of Beluga Unit No. 6. The gas-fired turbine-generator is one of the two largest units on our system. Repowering is a cost-effective activity that falls between ongoing maintenance and complete replacement of a unit. It is expected to extend the life of the turbine by 25 years, improve its operating efficiency by at least 7 percent, and cut its emission of nitrogen oxides by 75 percent. Beluga Unit No. 7 – the sister unit to No. 6 – is scheduled for repowering in 2001.

The repowering of the two largest gas turbines on our system demonstrates Chugach's long-term commitment to making electricity for Alaskans by burning natural gas at our Beluga Power Plant.

At the same time, we're not ignoring the hydroelectric projects that provide up to 15 percent of our annual kilowatt-hours. In 2000 we undertook a rebuild of our Cooper Lake hydroelectric plant. It is the most significant overhaul of the plant since it was commissioned in 1960. We replaced a great deal of 1950s technology with modern components that will enhance and improve the plant – and allow us to get more electricity out of each gallon of water.

Chugach continues to be a leader in investigating new technology on behalf of customers. In August we dedicated the nation's largest commercial fuel cell. We built the 1-megawatt project to provide assured power for the U.S. Postal Service, and benefit from the knowledge gained from a working research and development project. Chugach partnered with several other organizations interested in learning more about fuel cell operations.

We have a long history of taking advantage of technologies to improve service to our customers. In 2000 we substantially completed the multi-year upgrade to our Supervisory Control and Data Acquisition system. NetPay, the innovative program we developed for our customers to use to view and pay their bills online, proved so successful that we were approached by several other utilities interested in purchasing the system.

Chugach customers tell us the three things about their electric service that are most important to them are reliability, price and service. Our 2000 projects should benefit customers in all of these areas for years to come.



Overall, 2000 was another successful year for Chugach. We continued to provide reasonably priced, reliable power for Alaskans, while at the same time meeting all our financial goals and requirements.

Much of the year was spent overhauling units at our Beluga and Cooper Lake power plants. The board supports a forward-looking maintenance program that will ensure a steady stream of energy for our customers now and into the future. We also support Chugach's efforts to work with customers interested in exploring alterna-

## ≡ President's Report

tives to central station generation. Customers turn to Chugach for information on fuel cells, microturbines, wind power, co-generation and other technologies. As a board, we support Chugach efforts to be a leader in exploring new and improved technologies, and are proud of our experienced work force.

Still, most of the power we sell each year comes from the process of burning natural gas in combustion turbines. We have a stable supply of natural gas that we purchase from four separate suppliers. Our supply of gas is ensured for the next several years, but the prices we pay for fuel have been rising since the end of 1999.

Rising natural gas prices put pressure on rates. While we were once again successful in holding base rates steady, the fuel adjustment paid by customers did rise in response to higher fuel prices. As Alaskans, we recognize that while higher gas and oil prices might be good for our state's overall economy, they impact each of us as individuals as well.

I'm pleased to report that we retired \$3.75 million in capital credits in 2000. The wise management of equity, and the eventual return of accrued capital credits to members, are board priorities.

Chugach finished 2000 in sound shape, and ready for the opportunities of a new year.



*Patricia B. Jasper*

Patricia Jasper  
President



# Board of Directors

Patricia Jasper, President

Patricia Jasper is a small-business owner and a former computer programmer and systems analyst. She was first elected to the board in 1995, elected to a 3-year term in 1996 and again in 1999.



Pat Kennedy, Vice President

Pat Kennedy is an attorney limiting her practice to court appointments, guardian ad litem and child custody investigations. She has served on the board since 1993 and was re-elected in 1996 and 1999.



Bruce Davison, Secretary

Bruce Davison is an attorney and professional engineer. He was appointed to the board in June 1997 to fill a vacancy and elected to the board in 1998.



Mary Minder, Treasurer

Mary Minder is co-owner of a property management company. She has served on the board since 1995 and was re-elected in 1998.



Chris Birch, Director

Chris Birch is a civil engineer and manager of Engineering, Facilities and Environment for the Ted Stevens Anchorage International Airport. He was appointed to the board in November 1996, and elected to the board in 1997 and 2000.



H.A. "Red" Boucher, Director

H.A. "Red" Boucher is a communications consultant who owns H.A. "Red" Boucher & Associates. He was elected to the board in 1999.



Jeff Lipscomb Director

Jeff Lipscomb is a project management consultant with JWL Engineering. He was elected to the board in 2000.



# Treasurer's Report



Chugach recorded another year of solid financial performance in 2000. We met our required financial targets and held rates fairly stable in the face of rising costs.

Power sales rose 9.8 percent from the previous year. Kilowatt-hour sales were up across the board. In addition to selling more power to retail and wholesale customers, economy energy sales to Golden Valley Electric Association in Fairbanks rose significantly due to the shutdown of the Healy Clean Coal Project.

Chugach's strong bond ratings were sustained throughout 2000. Chugach bonds are rated "A+" from Fitch Investors Service and "A" by Standard & Poors. In February 2001 Chugach's rating was elevated from an "A3" to an "A2" by Moody's.

Here is a summary of Chugach's 2000 financial performance.

## Overview

Chugach finished 2000 with total revenues of \$160.8 million, operating revenues of \$158.5 million, expenses of \$151.1 million and margins of \$9.7 million.

## Key Ratios

Chugach achieved a margins-for-interest-to-interest ratio of 1.3599 in 2000, above the 1.20 required by its indenture of trust. The equity-to-total-capitalization ratio (the accumulated ownership of the members in the capitalized plant of the utility) was 29.17 percent at year's end.

## Power Sales

Chugach sold 2.41 billion kilowatt-hours of electric service in 2000, a 10.1 percent increase from 1999. Sales rose in all categories. Retail kwh sales were up 0.6 percent and wholesale sales rose 1.7 percent. Economy energy sales increased due to the shutdown of the Healy project and the resulting increase in economy energy sales to GVEA.

## Revenues

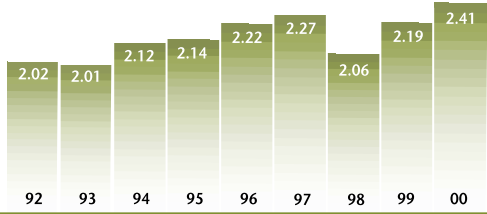
Chugach earned total revenues of \$160.8 million in 2000, up 11.5 percent from 1999. Operating revenues of \$158.5 million were up 11.1 percent from the year before. Retail sales revenues rose 4.8 percent from 1999. Wholesale revenues were up 9.2 percent. Economy energy revenues rose 310.5 percent from sales to GVEA.



*Mary Minder*

Mary Minder,  
Treasurer

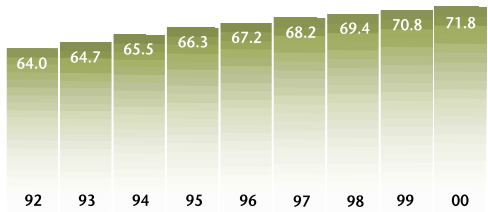
Kilowatt-hour sales in billions



## Power Sales: 2,405,388,608

Chugach sold 2.41 billion kilowatt-hours of electric service in 2000, up 9.8 percent from 1999. Retail sales accounted for 45.4 percent of all kwh sold. Wholesale followed at 43.5 percent and economy energy at 11.1 percent. The system peak load for the year was 409 megawatts. It was reached between 6 and 7 p.m. on Jan. 13, when the temperature at Chugach headquarters was 2 degrees below zero Fahrenheit. The 2000 peak was down from the record peak of 412 megawatts achieved in February 1999.

Services in thousands



## Services in place: 71,766

At the end of 2000 Chugach had a total of 71,766 services in place – a 1.4 percent increase from December 1999. A total of 1,572 new services were connected during the year, and 592 retired – for a net gain of 980. The number of idle services rose by 3.9 percent, from 1,732 at the end of 1999 to 1,799 at the end of 2000. Chugach's retail customer base is about twice as large as any other electric utility in Alaska, and includes much of the Municipality of Anchorage.

## Expenses

Expenses totaled \$151.1 million in 2000, up 12.3 percent from 1999. Higher fuel costs contributed significantly to increased expenses.

## Margins

Chugach earned \$9.7 million in margins in 2000, consistent with those earned in 1999. Margins were more than sufficient to meet or exceed all of Chugach's financial targets.

## Retail Rates

Retail base demand and energy rates once again remained unchanged throughout the year. Rates have been extremely stable in recent years. Chugach has not raised base retail rates since January 1994.

## Wholesale Rates

Wholesale base rates for demand and energy remained unchanged throughout 2000.

## Fuel Adjustment

The quarterly adjustment to the fuel surcharges for both wholesale and retail customers was higher in December 2000 than it had been a year earlier, in response to sustained increases in the price of oil and gas on worldwide markets. Chugach uses the mechanism of a quarterly "fuel adjustment factor" to allow it to relatively quickly recover the actual cost of fuel, purchased power and the special accounting treatment of unusual expenses.

## Residential Service Cost

At the end of 2000, Chugach was charging residential customers a monthly service charge of \$6.25 and 9.0268 cents per kilowatt-hour (including energy, fuel adjustment and the state tax known as the regulatory cost charge). The cost for 750 kwh of residential service in December 2000 was \$73.95 – up 3.9 percent from a year earlier.

## Bonds

At the end of 2000, Chugach bonds had a fair market value of \$335.2 million.

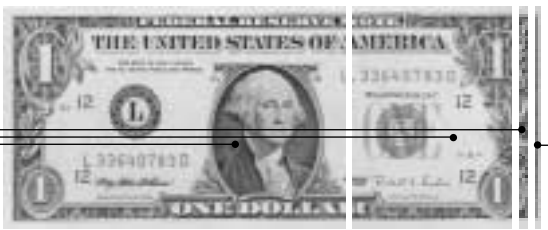


## Capital Credits

Chugach allocated \$9.7 million in margins in June. The statements showed members of record from 1999 their individual share of the cooperative's margins. About \$7.9 million of the allocated credits went to retail members. Retail members of record were credited with allocations equal to 8.5 percent of their annual allowable charges. Wholesale customers received notices for allocations totalling \$1.7 million. In November, the board approved retiring \$3.75 million in retail capital credits. The action completed the retirement of 1984 credits, plus 19 percent of those earned in 1985. In keeping with a plan to

put wholesale and retail members on the same rotation schedule, there were no wholesale capital credits retired in 2000. Chugach made \$308,885 in capital credit payments to 181 estates in 2000.

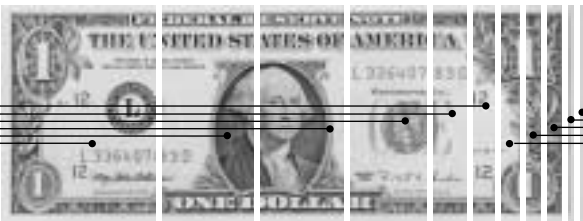
In summary, Chugach demonstrated strong financial performance and reasonable rate stability in 2000.



Retail sales	\$ 98,536,690	/ 61.2%	Other operating revenue	\$ 3,501,581	/ 2.2%
Wholesale sales	\$ 48,681,845	/ 30.3%	Nonoperating margins	\$ 2,287,227	/ 1.4%
Economy energy sales	\$ 7,820,998	/ 4.9%	Totals	\$ 160,828,341	/ 100%

## Revenues and other margins: \$160,828,341

Chugach earned total revenues of \$160.8 million in 2000, up 11.5 percent from 1999. Power sales accounted for \$155.0 million of the total. Retail kilowatt-hour sales accounted for 63.6 percent of power sales revenue, followed by wholesale at 31.4 percent and economy energy sales at 5.0 percent.



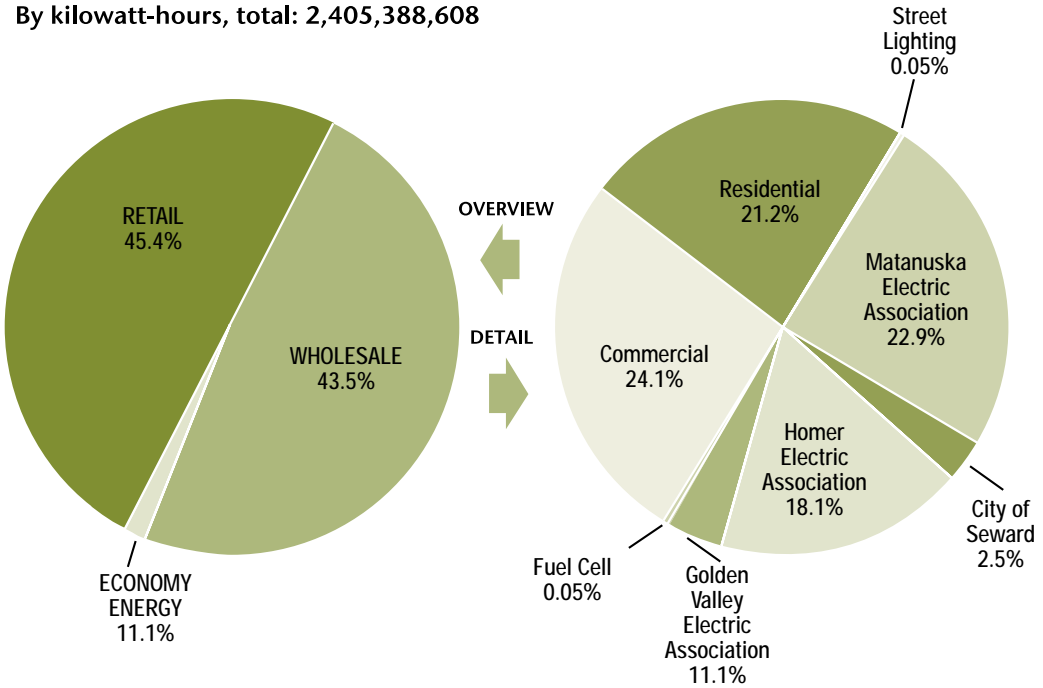
Power production	\$ 52,726,374	/ 34.9%	Dist. maintenance	\$ 5,103,883	/ 3.4%
Net interest	\$ 24,718,290	/ 16.3%	Dist. operations	\$ 4,670,977	/ 3.1%
Dep. & amortization	\$ 23,216,509	/ 15.4%	Transmission	\$ 3,828,630	/ 2.5%
Admin. & general	\$ 19,699,452	/ 13.0%	Taxes & other	\$ 1,643,941	/ 1.1%
Purchased power	\$ 9,152,248	/ 6.1%	Sales expense	\$ 1,112,804	/ 0.7%
Consumer accts.	\$ 5,275,455	/ 3.5%	Totals	\$ 151,148,563	/ 100%

## Expenses: \$151,148,563

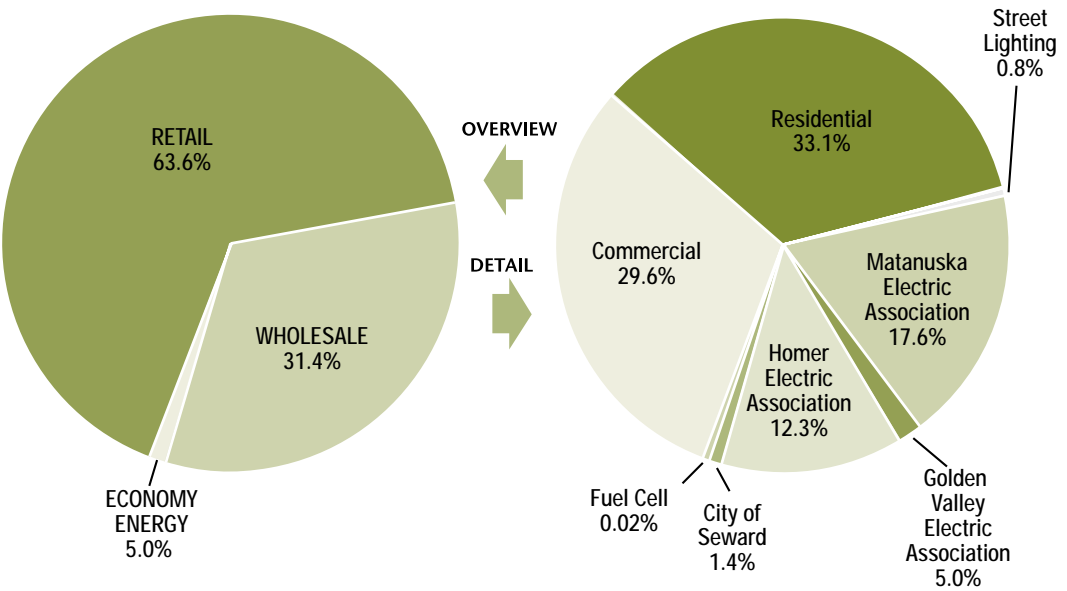
Expenses rose 12.3 percent from 1999. Most of the increase was due to higher fuel costs. Fuel costs rose on a unit basis, and Chugach used more fuel due in part to increased economy energy sales to GVEA. Operating and maintenance costs accounted for 67.2 percent of expenses and fixed costs for 32.8 percent.

# Chugach Power Sales at a Glance

By kilowatt-hours, total: 2,405,388,608



By revenues, total: \$155,039,533



Note: Amounts may not total 100% due to rounding.

# Balance Sheets

December 31, 2000 and 1999

ASSETS	2000	1999
Utility plant:		
Electric plant in service	\$ 687,127,130	641,627,328
Construction work in progress	42,027,617	47,257,296
	729,154,747	688,884,624
Less accumulated depreciation	259,999,872	243,082,832
Net utility plant	469,154,875	445,801,792
Other property and investments, at cost:		
Nonutility property	443,555	413,515
Investments in associated organizations	9,857,153	8,946,861
	10,300,708	9,360,376
Current assets:		
Cash and cash equivalents, including repurchase agreements of \$3,905,283 in 2000 and \$6,574,457 in 1999	1,695,162	4,110,030
Cash-restricted construction funds	378,848	538,404
Special deposits	212,163	182,164
Accounts receivable, less provision for doubtful accounts of \$441,933 in 2000 and \$389,223 in 1999	19,200,912	17,730,994
Fuel cost recovery	2,915,733	180,755
Materials and supplies	15,357,198	17,180,136
Prepayments	755,276	861,947
Other current assets	332,246	341,702
Total current assets	40,847,538	41,126,132
Deferred charges	19,442,859	22,067,237
	\$539,745,980	\$ 518,355,537
LIABILITIES	2000	1999
Equities and margins:		
Memberships	\$ 1,009,663	\$ 960,808
Patronage capital	122,925,253	117,335,481
Other	4,880,424	4,228,356
	128,815,340	122,524,645
Long-term obligations, excluding current installments:		
First mortgage bonds payable	169,542,000	194,139,000
National Bank for Cooperatives bonds payable	142,677,945	143,011,295
	312,219,945	337,150,295
Current liabilities:		
Current installments of long-term debt and capital leases	6,430,350	6,372,405
Short-term borrowing	40,000,000	-
Accounts payable	9,493,875	9,508,851
Consumer deposits	1,324,213	1,059,677
Accrued interest	5,861,390	6,066,114
Salaries, wages and benefits	4,586,407	4,053,228
Fuel	8,154,559	4,381,304
Other	1,434,562	2,527,798
Total current liabilities	77,285,356	33,969,377
Deferred credits	21,425,339	24,711,220
	\$539,745,980	\$ 518,355,537

For a copy of Chugach's 2000 financial statements, including the notes, call (907) 762-4596.

# Revenues, Expenses & Patronage Capital

Years ended December 31, 2000, 1999 and 1998

	2000	1999	1998
<b>OPERATING REVENUES</b>	\$158,541,114	\$142,644,327	\$141,825,373
<b>OPERATING EXPENSES:</b>			
Production	52,726,374	40,301,607	45,261,450
Purchased power	9,152,248	8,581,979	8,462,835
Transmission	3,828,630	3,813,438	2,771,652
Distribution	9,774,860	9,400,618	8,876,890
Consumer accounts	5,275,455	4,387,421	4,177,980
Sales expense	1,112,804	1,227,908	1,125,410
Administrative, general and other	21,343,393	22,892,479	17,592,829
Depreciation	23,216,509	19,851,436	22,468,395
<b>Total operating expenses</b>	<b>126,430,273</b>	<b>110,456,886</b>	<b>110,737,441</b>
<b>INTEREST:</b>			
On long-term debt	24,987,033	24,137,593	25,159,660
Charged to construction – credit	(2,178,425)	(1,000,246)	(821,137)
On short-term debt	1,909,682	998,034	130,146
<b>Net interest</b>	<b>24,718,290</b>	<b>24,135,381</b>	<b>24,468,669</b>
<b>Net operating margins</b>	<b>7,392,551</b>	<b>8,052,060</b>	<b>6,619,263</b>
<b>NONOPERATING MARGINS:</b>			
Interest income	703,807	592,208	711,155
Other	1,615,161	1,003,029	1,050,899
Property gain (loss)	(31,741)	20,137	349,087
<b>Assignable margins</b>	<b>9,679,778</b>	<b>9,667,434</b>	<b>8,730,404</b>
Patronage capital at beginning of year	117,335,481	109,622,996	104,800,092
Retirement of capital credits and estate payments	(4,090,006)	(1,954,949)	(3,907,500)
<b>PATRONAGE CAPITAL AT END OF YEAR</b>	<b>\$122,925,253</b>	<b>\$117,335,481</b>	<b>\$109,622,996</b>



# Statements of Cash Flows

Years ended December 31, 2000, 1999 and 1998

	2000	1999	1998
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Assignable margins	\$ 9,679,778	\$ 9,667,434	\$ 8,730,404
Adjustments to reconcile assignable margins to net cash provided by operating activities:			
Depreciation and amortization	27,575,408	23,563,805	24,605,760
Capitalized interest	(340,838)	(151,474)	(260,258)
Property (gains) losses and obsolete inventory write-off	(25,425)	242	(349,087)
Other	(1,155)	(221)	60,734
Changes in assets and liabilities:			
(Increase) decrease in assets:			
Special deposits	(29,999)	(61,000)	30,540
Accounts receivable	(1,469,918)	(1,049,512)	2,549,024
Fuel cost recovery	(2,734,978)	381,029	4,206,848
Prepayments	106,671	55,434	(359,010)
Materials and supplies, net	1,822,938	(1,216,702)	(344,349)
Deferred charges	(1,231,531)	(14,179,418)	(7,898,240)
Other assets	9,456	7,328	(43,615)
Increase (decrease) in liabilities:			
Accounts payable	(14,976)	670,093	1,800,524
Accrued interest	(204,724)	(656,211)	(182,010)
Deferred credits	(3,638,491)	(2,973,944)	(1,829,112)
Consumer deposits, net	264,536	66,061	(44,625)
Other liabilities	3,213,198	524,833	(3,129,329)
Total adjustments	21,121,747	3,980,097	17,992,659
Net cash provided by operating activities	32,979,950	14,647,777	27,544,199
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Extension and replacement of plant	(46,736,359)	(41,864,828)	(20,269,038)
(Increase) decrease in investments in associated organizations	(909,137)	(590,276)	(552,827)
Net cash (used) in investing activities	(47,645,496)	(42,455,104)	(20,821,865)
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>			
Transfer of restricted construction funds	159,556	(361,038)	187,412
Net increase (decrease) in notes payable	40,000,000	-	-
Proceeds from long-term debt	-	72,500,000	-
Repayments of long-term debt	(24,872,405)	(40,983,801)	(5,913,512)
Memberships and donations received	700,923	788,865	80,695
Retirement of patronage capital	(4,090,006)	(1,954,949)	(3,907,500)
Net refunds of consumer advances for construction	352,610	(384,294)	(81,384)
Net cash used by financing activities	12,250,678	29,604,783	(9,634,289)
Net increase (decrease) in cash and cash equivalents	(2,414,868)	1,797,456	(2,911,955)
Cash and cash equivalents at beginning of year	\$ 4,110,030	\$ 2,312,574	\$ 5,224,529
Cash and cash equivalents at end of year	\$ 1,695,162	\$ 4,110,030	\$ 2,312,574
<b>Supplemental disclosure of cash flow information</b>			
interest expense paid, net of amounts capitalized	\$ 24,917,014	\$ 24,791,592	\$ 24,650,680

# Alternative generation



*In 2000 Chugach and AVEC received and installed a 29-kw, gas-fired microturbine and began testing it at AVEC headquarters. An oil-fired unit arrived late in the year.*

For more than 50 years, Chugach has provided power for customers the old-fashioned way – by burning fossil fuels or using steam or water to turn the blades of turbines.

But times and technologies are changing, and Chugach has shown its willingness to change with them in response to customer needs.

SMS also provides seamless separation from – and reconnection to – the grid in the event of a power problem that could cause a disruption in service for the highly automated Center. Chugach worked with a number of organizations to fund and develop the \$5.6 million project.

## Microturbines

Microturbines are machines that function as tiny power plants at a customer's location. They can be powered by different fuels, and make power by spinning a small turbine at high speeds. During 2000, Chugach and the Alaska Village Electric Cooperative continued a project to investigate whether the technology is appropriate for different locations in Alaska.



*Instrument packages at several locations collect hourly wind speed, wind direction, and temperature readings, and feed the data to a computer at Chugach daily as part of an ongoing investigation of the practicality of generating power with wind turbines.*

## Fuel cells

Fuel cells use a chemical process to convert hydrogen and outside air into electricity, hot water and carbon dioxide.

In August, Chugach dedicated the nation's largest commercial fuel cell. Chugach built the facility adjacent to the U.S. Postal Service Mail Processing and Distribution Center in Anchorage. As an interconnected Chugach power plant, the 1-megawatt project provides assured power for the Center and feeds power to the grid. The project uses a revolutionary site management system to ensure the five 200-kilowatt cells operate as one. The

## Wind power

Surveys have repeatedly shown that a significant number of Chugach customers say they would be interested in having at least a portion of their power supplied by wind turbines. Throughout 2000, Chugach continued to monitor wind conditions at several locations. The effort is part of an ongoing investigation of the feasibility of wind power for Chugach customers.



*On Aug. 9 Chugach added a 1-Mw fuel cell to its grid. The project provides assured power for a Postal Service Center, as well as power for other customers on the grid.*

Retail Services and its employees believe that one of the most significant things a company can offer is outstanding customer service. In 2000, Retail Services employees continued to work diligently to enhance the services offered to Chugach members.



*Chugach extended its phone hours until 11 p.m. for added customer convenience in doing business with the association.*

## ≡ Retail Services

Among other things, Retail Services has:

- Designed and implemented an automated service order program for processing service connects and disconnects. Accounts are set up and closed automatically on Chugach's billing system, saving staff time each day.
- The commercial key account group continued to assist customers in using time-saving services offered by Chugach.
- Performed 106 energy audits for customers.
- Received 124,536 calls through the Member Services Department during normal operations, of which 99,062 were answered within 30 seconds.
- Offered improved customer service through extended telephone hours.
- Showcased alternative energy technologies and electric and Internet services at the 2000 Anchorage Home & Remodeling Show.



*Combining computers and Chugach's NetPay option is a convenient way for customers to receive and pay their Chugach bills day or night via the Internet.*



*Chugach saves time in reading meter routes quickly and remotely by radio signals sent to a computerized vehicle. Chugach has more than 57,000 automated meter reading devices on its system.*

# Transmission & Distribution Network Services

T&D Network Services is responsible for electronic communications, power control and fuel management, and asset management. In addition, it is responsible for Chugach's "wires business" and designs, builds, upgrades and maintains the facilities, including substations.

Among its other activities, in 2000 T&D Network Services:

- Substantially completed a multi-year project to replace Chugach's SCADA (Supervisory Control and Data Acquisition) system.
  - Cleared thousands of spruce trees killed by the spruce bark beetle adjacent to power lines in the forests of the northern Kenai Peninsula and the Anchorage Bowl.
  - Performed cable injections to extend the life of aging underground distribution cable in several developed Anchorage subdivisions.
  - Relocated electrical facilities as part of a project to improve the Old Seward Highway from Dowling Road to Dimond Boulevard.
  - Relocated a number of facilities in the vicinity of the Ted Stevens Anchorage International Airport to accommodate improvements at the facility.
- Installed new 34.5-kv metal-clad switchgear and retired old bus work and circuit breakers at the International Substation.



- Achieved revenues of more than \$400,000 for Chugach from selling spare capacity on Chugach's microwave system.

*A Chugach contractor used a special machine to take down beetle-killed spruce along rights of way on the northern Kenai Peninsula.*

Throughout 2000, work continued by Federal agencies on the environmental impact statement for a proposed route for a new transmission line between Anchorage and the Kenai Peninsula. Chugach is responsible for construction of the project on behalf of the Railbelt utilities. In the fall of 1999 an application was accepted for a permit to route the line through the Kenai National Wildlife Refuge, triggering the EIS process. A draft EIS is anticipated to be released in 2001, with a final Record of Decision coming in 2002.

*Chugach began construction on a new 34.5-kilovolt subtransmission line to link the Campbell and Klatt substations.*





The responsibility for Chugach's financial performance and its present and future generation resources falls under Finance & Energy Supply. It also manages the corporate analysis function, conducts business planning, manages rates & regulatory issues, wholesale power sales, and fuel supply contracts.

Among other things, in 2000, F&ES:

- Took Unit No. 6 at the Beluga Power Plant off line in May after more than 170,000 fired-hours to perform a repowering project. The work was part of a multi-year investment by Chugach to upgrade and extend the life of the two largest gas-fired turbine-generators on its system.



*As part of a major repowering project, a new combustor was installed on Beluga Unit No. 6. The modification will help dramatically reduce emissions from the unit.*

## Finance & Energy Supply

- Completed a 1-megawatt fuel cell power plant adjacent to the U.S. Postal Service Mail Processing and Distribution Center in Anchorage. The project was dedicated in August. It is the nation's largest commercial fuel cell. One of its key features is a site management system that allows seamless separation from, and reconnection to, the Chugach grid to provide assured power for the highly automated facility.
- Initiated the most complete overhaul of the Cooper Lake Power Plant since the hydroelectric project was commissioned in 1960.
- Conducted a hot-gas path inspection and compressor inspection of Homer Electric Association's 40-megawatt G.E. Frame 6 gas turbine under a contract to provide maintenance services for the unit.
- Updated the Power Requirements Study.
- Updated the corporate Strategic Plan and Business Plan.
- Supported corporate analytical needs.



*As part of an extensive overhaul of the Cooper Lake Power Plant, the two generators were removed, cleaned and shipped to a General Electric facility in Utah for rewinding.*



# Generation Resources

This page highlights the generation resources Chugach uses to ensure reliable, affordable power. Chugach has 511.2 megawatts of installed capacity as detailed below. The unit ratings shown are nominal ratings taken at 30 degrees Fahrenheit. Chugach also takes power from the state-owned Bradley Lake hydroelectric project near Homer.



## BELUGA

- Located on the west side of Cook Inlet near Tyonek
- Combustion turbines 1 – 7 fueled by natural gas
- Unit 8 is a steam turbine

<i>Units</i>	<i>Commissioned</i>	<i>Power Rating</i>
No. 1	1968	19.6 megawatts
No. 2	1968	19.6 megawatts
No. 3	1972	64.8 megawatts
No. 5	1975	68.7 megawatts
No. 6	1975	69.4 megawatts
No. 7	1978	71.0 megawatts
No. 8	1981	<u>55.0 megawatts</u>

Total 368.1 megawatts



## BERNICE LAKE

- Located near Nikiski on the Kenai Peninsula
- Natural gas combustion turbines

<i>Units</i>	<i>Commissioned</i>	<i>Power Rating</i>
No. 2	1971	19.0 megawatts
No. 3	1978	26.0 megawatts
No. 4	1981	<u>22.5 megawatts</u>

Total 67.5 megawatts



## COOPER LAKE

- Located near Cooper Landing on the Kenai Peninsula
- Hydro-turbines

<i>Units</i>	<i>Commissioned</i>	<i>Power Rating</i>
No. 1	1960	8.6 megawatts
No. 2	1960	<u>8.6 megawatts</u>

Total 17.2 megawatts



## EKLUTNA

- Former federal hydroelectric project along the Knik River
- Jointly owned with Anchorage Municipal Light & Power and Matanuska Electric Association
- Chugach's share is 30%, 11.7 Mw maximum

<i>Units</i>	<i>Commissioned</i>	<i>Power Rating</i>
No. 1	1955	23.5 megawatts
No. 2	1955	<u>23.5 megawatts</u>

Total 47.0 megawatts



## INTERNATIONAL

- Located off International Airport Road in Anchorage
- Natural gas combustion turbines

No. 1	1964	14.1 megawatts
No. 2	1965	14.1 megawatts
No. 3	1969	<u>18.5 megawatts</u>

Total 46.7 megawatts



# Key Comparisons

## Services at year end

1999	70,786	
2000	71,776	1.4% increase

## Kilowatt-hours sold

1999	2.19 billion kwh	
2000	2.41 billion kwh	10.1% increase

## Retail kwh

1999	1.09 billion kwh	
2000	1.09 billion kwh	0.6% increase

## Wholesale kwh

1999	1.03 billion kwh	
2000	1.05 billion kwh	1.7% increase

## Economy energy kwh

1999	76.9 million kwh	
2000	267.9 million kwh	248.4% increase

## Total revenue

1999	\$144.3 million	
2000	\$160.8 million	11.5% increase

## Expenses

1999	\$134.6 million	
2000	\$151.1 million	12.3% increase

## Margins

1999	\$9.7 million	
2000	\$9.7 million	0.1% increase

## Cost per residential kwh in December (all "per kwh" charges)

1999	8.6579¢	
2000	9.0268¢	4.3% increase

## Cost of 750 kwh of residential service in December

1999	\$71.18	
2000	\$73.95	3.9% increase

## Change in Anchorage consumer price index Up 2.4% for 2000 (CPIU)

## Outage Statistics:

Chugach averaged 2.45 outage hours per customer in 2000, up from 2.39 hours in 1999. The 5-year average for customer outage hours decreased to 1.99 hours in 2000 from 2.58 hours in 1999.



## Independent Auditor

KPMG LLP  
601 West 5th Avenue, Suite 700  
Anchorage, Alaska 99501-2258  
(907) 276-7401

## Corporate Information

Chugach Electric Association, Inc.  
Member & Public Relations Department  
P.O. Box 196300  
Anchorage, Alaska 99519-6300  
(907) 762-4736  
FAX (907) 562-0027  
www.chugachelectric.com

## Investor Information

Chugach Electric Association, Inc.  
Corporate Planning & Analysis  
P.O. Box 196300  
Anchorage, Alaska 99519-6300  
(907) 762-4417  
FAX (907) 562-0027  
www.chugachelectric.com

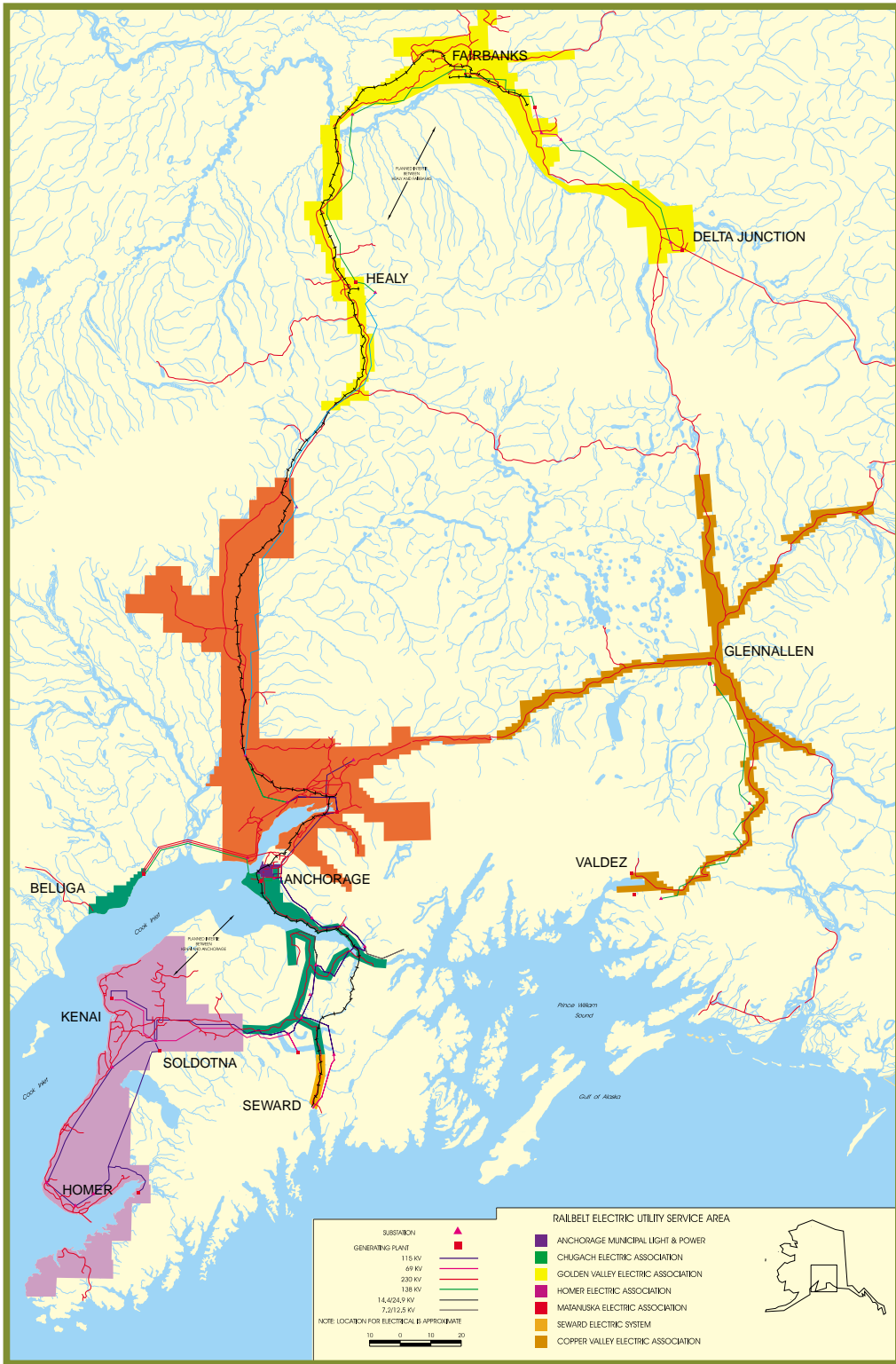
## Credits

### *Photography*

Photos by Chris Arend, Chugach staff and contractors.  
Publishing and production by  
Bradley/Reid Communications, Inc.

The 2000 Chugach Annual Report was printed with environmentally friendly vegetable-based inks.

# The Railbelt System



Chugach power flows to nearly three-fourths of Alaska's population. Chugach serves nearly 72,000 metered retail locations in a service territory extending from Anchorage to the Northern Kenai Peninsula, and from Whittier on Prince William Sound to Tyonek on the west side of Cook Inlet. Chugach regularly provides power for Alaskans from Homer to Fairbanks through wholesale and economy energy sales to Homer Electric Association, the City of Seward, Matanuska Electric Association and Golden Valley Electric Association. On occasion, Chugach sells or buys economy energy to or from Anchorage Municipal Light & Power.

Chugach has 511.2 megawatts of installed generation capacity at five power plants. Chugach operates 2,012 miles of energized line, made up of 402 miles of transmission line, 930 miles of overhead distribution line and 680 miles of underground distribution line.

Chugach's 2000 system peak load of 409 megawatts occurred between 6 p.m. and 7 p.m. on Jan. 13. Power sales for the year totaled 2.41 billion kilowatt-hours. Chugach finished 2000 with total revenues of \$160.8 million and margins of \$9.7 million.