

CORDOVA
ELECTRIC
COOPERATIVE, INC



2021 ANNUAL REPORT



REPORT TO THE MEMBERSHIP

Dear customers of Cordova Electric Cooperative (CEC):

As new people move to Cordova or existing residents grow up, buy homes, or start local businesses, it is important they understand how an electric cooperative works. A cooperative is a utility that is owned by the customers. CEC produces and distributes energy as a not-for-profit utility, and the amount of energy you buy determines how much of a share you own. Your electric bills finance the construction and maintenance of the electric lines and power generators and covers all the costs of operating the utility including fuel, insurance, legal fees, regulatory compliance, billing and customer service, and meter reading. If we have an operating margin (like a profit), that gets allocated to customers as part of their ownership of the cooperative. Periodically CEC pays customers back the margins from previous years and buys their equity shares out with revenue generated by new customers. Essentially part of the cost of replacing old equipment includes buying out the excess (margins) the original customers paid to install it.



Clay Koplin, CEO

Some key facts about Cordova Electric:

1. Our electrical distribution system is about 200 miles long and is 100% underground or submarine. This sets CEC apart from most other electric utilities and is part of the reason why we experience few outages and generally brief outages.
2. Our energy is about 70-75% hydro power each year (close to 100% all summer, but as low as 0% in winter as the rivers freeze up) which costs CEC about 7¢ per kWh to produce. We are working hard to phase out our diesel power which experiences more engine failures and outages, and which is very expensive to operate and maintain. It is also hard to predict the cost of diesel power as fuel costs rise and fall. Our cost to produce diesel power was about 32¢ per kWh in 2021 but will be much more expensive in 2022 due to diesel fuel costs almost doubling. As we seek alternatives to diesel, we are trying to maintain the same high reliability, low cost, and clean production of power that we enjoy from our hydro plants. CEC has been internationally recognized for our accomplishments, and we will be sharing some of the news coverage videos at the annual meeting.

This winter we have experienced more outages than usual. Some of the outages were related to the winter weather; equipment getting hit by plows under deep snow and frozen conduits damaging wire on Lake Avenue. Some were due to diesel generators shutting down due to engine failures. We are making improvements to maintain better reliability and adding tools to keep customers better informed of outages.

We completed a rate analysis in 2021 and raised some rate classes while lowering others so that each rate class (residential, large power, processor, harbor, streetlight) pays a fairer share of the cost required to provide them service. Keeping rate stability in mind the fuel surcharge was also revised to collect all fuel expenses, and will be set quarterly to alleviate the dramatic monthly swings between high and low fuel use months. The effect of which is an approximate 6% overall increase on electric bills. This increase, the first in six years, will help cover the rising cost of inflation, interest rates, and insurance costs. We also implemented a rate to purchase energy from a qualifying small scale renewable facility.

Because we are such a small electric utility in a small community, we try to keep our expenses down. One goal is to transition away from the large and aging headquarters building into a smaller, more energy efficient building that reduces our costs and shrinks the size of facilities we own and operate. It also moves us out of the rental and building management business to focus on reliable, affordable energy and invest in cleaner sources. We also seek alliances to contribute to these goals. In 2021, one partner, Dragos Inc., sponsored CEC to install their world-class cybersecurity products on our power automation system, at no cost to CEC. We also applied for a renewable energy fund grant from the State of Alaska. It ranked as the highest scoring project by the review committee and provided \$300,000 of grant funding assistance to look for hydro energy storage options near Cordova including our existing Humpback Creek and Power Creek sites.

Other highlights from 2021 include the Cat Relocation Project (highlighted on the following page), a new contract to determine the feasibility of extending power to Johnstone point for the FAA, installation of new underground lines along Orca Inlet Road and to the new Prince William Sound Science Center, hosting the Electrify Alaska! beneficial electrification conference in Cordova, a strong operational and financial year despite lingering pandemic and new supply-chain challenges, and recruiting new talented employees. All these projects and efforts are targeted at maintaining good power system reliability, affordable rates, and a transition to clean power.

We received nearly \$300,000 in grant funding to upgrade meters to more advanced styles to provide better customer services as we install them in 2022. This is a small part of our overall goal of improving the quality of service and communications with you, the CEC customers.

We wish you a safe, happy, and successful 2022. Respectfully, Clay Koplin, CEO



ACCOMPLISHMENTS

Some of Your Cooperative's 2021 Accomplishments...

- Successfully nominated Barb Bailer, who retired in 2021, for the Hatcher-Williams-Turkington Alaska Power Association state industry award
- Four new employees: Leif Stavig, Augie Jewell, Garrett Collins, Robert Silveira
- Secured an additional \$47,000 contribution to our Advanced Metering project from RADIANCE
- Ben Simpler and Aaron Hansen completed apprenticeship; are now Journeymen
- Cordova and CEC Featured on prime-time national Japanese television for our Battery Energy Storage System (BESS) project and nation-leading innovation
- Used BESS to correct grid power factor – potentially the first time in the US
- Performed customer surveys through RADIANCE project
- Applied for a marine hydrokinetic (tidal generator) grant
- Worked with several local businesses to assess solar feasibility
- Dragos offered a \$90,000 state of the art cybersecurity install for our automation
- Automation backup system was installed for additional security
- Added new network diagrams, fuel diagrams, and automation upgrades
- Installed new automation network hardware (RADIANCE project)
- New dam installation at Power Creek is optimized and functioning well
- FAA Johnstone Point Feasibility Study secured - \$62,000 contract for CEC
- Collaborated with NVE on Shepard Point Road design and costing
- Presented at approximately 12 state, national, and international conferences including the World Energy Congress in Dubai (virtual)
- Participated in Electricity Advisory Committee meetings Department of Energy
- Prepared Science Center electrical design and installed it
- Prepared preliminary design for new airport planned development
- Performed diesel #4 maintenance to keep it in emergency condition until rebuild
- Installed satellite clocks and implemented automatic time-error control
- Performed governor maintenance on hydro units 4 and 5
- Performed diesel engine #3 and #7 one-revolution maintenance inspections
- Performed major repairs to 20-year-old used backhoe
- Set new no-lost-time-work record of 1,607 days and counting (as of June)
- Hydro 4 and 5 spear valve and deflector bushing leaks were repaired
- Clean audit received for 2020
- Diesel #4 repairs were completed including preliminary rebuild work
- Ordered a large stock of transformers the day before prices dramatically spiked
- Completed a new 5-year contract negotiations with IBEW
- Attended and presented at the National Hydropower Conference in Anchorage then the Alaska Power Association annual meeting in Homer (Clay/Leif/Joe)
- Had two near-record sales months in July and August
- Reviewed CEC policies in depth to assure CEO and Board compliance
- CEC featured in British Broadcasting Corporation program – only US city featured
- Revitalized CEC Safety Program
- Attended APA Electric Utility Legal conference for the first time (Clay/Leif)
- Received final payment of \$850,000 in grant funding for BESS system
- Hosted Electrify Alaska! Conference, highly successful hundreds of student-hours of Cordova High School student participation, Cordova participation, Governor and Commissioners attended, industry experts and VIPs attended
- Completed a rate analysis, cost of service study, and depreciation review (first ever for CEC)
- Prepared and presented HQ building disposal options, new HQ options, COVID policy, Operational Plan overview, and Crater Lake overview to CEC Board
- First Advanced Meters installed on the CEC System, with many more to come
- Modified boiler controls to save as much as 30 gallons of diesel per day
- Received \$300,000 grant to assess hydro storage alternatives to Crater Lake - #1 ranked project by AEA of the 21 submitted and 11 recommended (Clay)
- A strong operational and financial year and tremendous accomplishments while short-handed and still struggling with pandemic and supply chain challenges and recruited a lot of top-rate talent

Cat Relocation Project

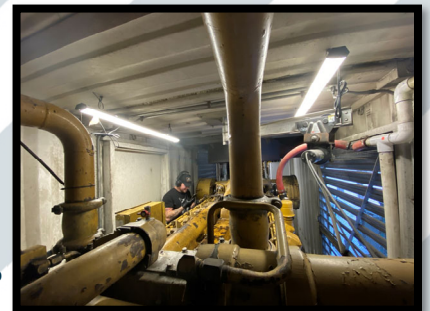
In 1999 CEC purchased two small Caterpillar diesel generators (unit #5 and #6, collectively referred to as Cats) in a connex container for emergency power while Power Creek hydro project was being built. Since their original purchase by CEC, we have made significant overall improvements to the system, including adding the Battery Energy Storage System (BESS) and increasing our use of hydro through efficiency upgrades. These improvements have resulted in us using our Cats more and more, and now they represent approximately 80% of the run time in place of the three larger engines.

Over the last 20+ years, the electronic controls, electrical wiring, radiators, and piping took a toll from weather, vibration, and age to the extent that parts could no longer be purchased. Despite this, the engines themselves still have 30 years of life in them and are very reliable. There was also a lot of room for improvement with upgrading the radiators to variable drives and connecting them to a heat loop with the other generators and an electric boiler to use heat more efficiently.

Despite the global pandemic and supply chain issues in 2021, CEC was able to substantially complete the Cat Relocation Project, which involved constructing a small power plant adjacent to the existing plant on Orca Road. Key reasons why this project was successful are:

1. We were able to pre-order the necessary parts and materials in early 2021, before prices spiked.
2. We had a stellar internal and external project management team that coordinated work with the various contractors.
3. We worked with local, talented contractors who completed their work in a timely and cost-effective manner and kept a portion of the money in Cordova.

The permanent building is a substantial improvement over the connex van the Cats were in before. The Cats are now able to operate in a much safer and more efficient way than ever before. The plant now has one generator (unit #5) fully operational, and the other (unit #6) is close behind. We are already seeing substantial fuel efficiency improvements. A new diesel plant of this capacity costs between \$5 million and \$6 million (before supply chain problems), and CEC completed this project very close to our budget of \$2.5 million to get a new diesel setup at a fraction of the cost. This upgrade comes at just the right time as diesel prices have doubled during the project, and we are just entering our historically worst months (February through April) for low hydropower production.



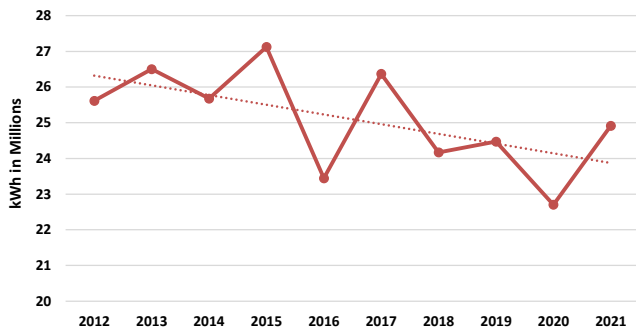
Cramped Connex Van



Inside the New "Cat House"

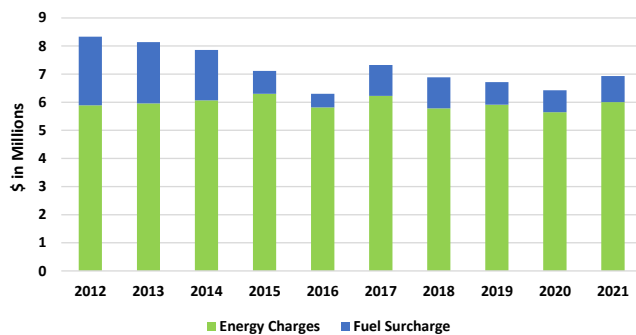
CEC BY THE NUMBERS

Kilowatt Hour (kWh) Sales



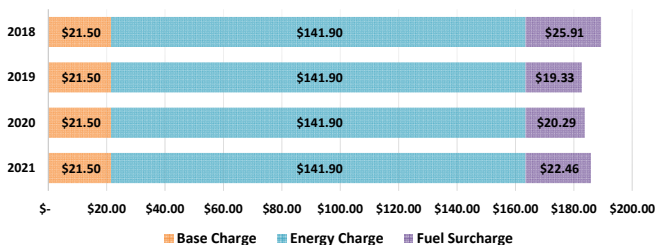
Generally, kWh consumption has been decreasing year-by-year. This is mostly due to efficiency upgrades (think 30-year appliances being replaced by new energy efficient appliances, old light fixtures being replaced with LEDs, etc.). This will be an interesting metric to watch in the future as we expect more efficiency upgrades, but also anticipate increased electrification of items traditionally powered by fossil fuels (think electric vehicles, heat pumps, etc.)

Fuel and Energy Charges



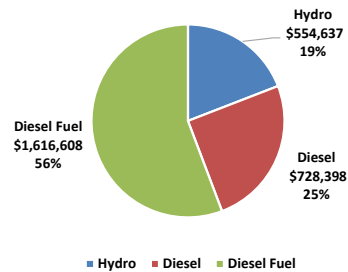
Energy charges (green) have been consistent over the years. Declining kWh sales with consistent revenue collection shows that CEC's rate structure is performing relatively well. The fluctuating fuel surcharge (blue) results from fluctuating diesel prices, which CEC has no control over. The fuel surcharge for the beginning of 2022 is the highest it has been in eight years.

Average Residential Monthly Bill
(Based on 500 kWh)

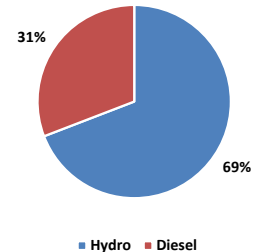


Average monthly bills for residences have remained consistent. Fluctuations in bills come down to actual kWh used and fuel surcharge. Due to recent diesel fuel price increases and a recent adjustment to the fuel surcharge calculation, residents can expect to pay more towards the fuel surcharge in the near future.

Generation Expense in 2021

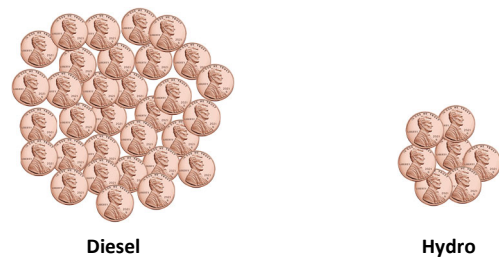


kWh Generation in 2021



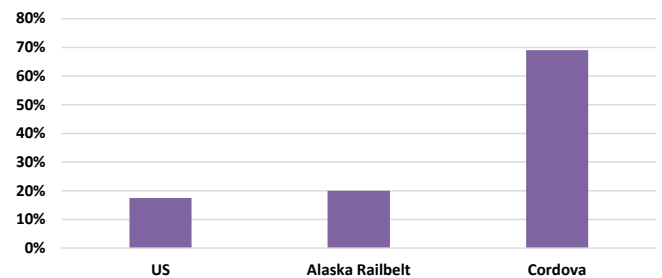
CEC spends far more each year in the operations, maintenance, and fuel for diesel generation than hydro; however, hydro generates the majority of the electricity for Cordova.

Price per kWh Produced



Each kWh produced by diesel costs 32 cents. Each kWh produced by hydro costs 7 cents. Diesel is nearly 5 times more expensive.

Percent Renewable



As we strive to become more renewable, it's important to reflect on how far we have come. Compared to the US as a whole, or the Alaska Railbelt (Alaska's electric grid from Fairbanks to Kenai Peninsula), Cordova produces a significant amount of its power from renewable energy. Accomplishing this as an isolated microgrid is not easy, and yet we challenge ourselves to become even more renewable.

**We realize this is a lot of information to take in.
Please reach out to your CEC staff if you have any questions!**

FINANCIALS

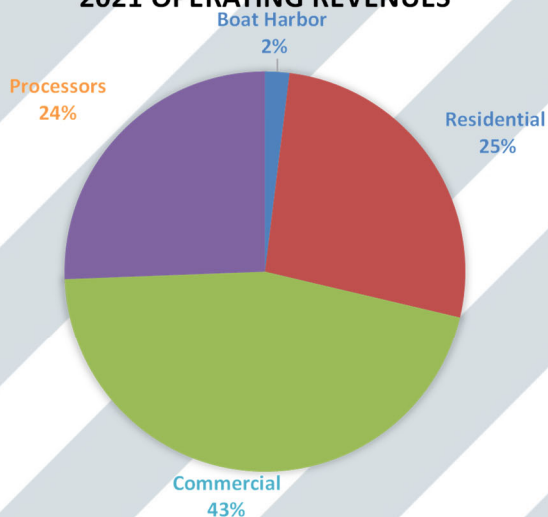
Statement of Income and Expense

	2019	2020	2021
Operating Revenue	\$ 6,753,600	\$ 6,447,651	\$ 7,018,391
Power Production Expense	1,198,672	1,272,154	1,285,619
Cost of Fuel	1,216,245	1,304,136	1,656,609
Distribution O & M Expense	728,164	898,321	704,692
Consumer Accounts & Information Expense	322,247	368,270	329,708
Administrative & General Expense	1,287,771	1,175,894	1,222,859
Total Operating & Maint Expenses	\$ 4,753,099	\$ 5,018,775	\$ 5,199,487
Depreciation & Taxes	973,095	990,476	1,076,684
Interest Expense	501,527	388,054	402,315
Other	23,988	18,842	8,595
Total Cost of Electric Service	\$ 6,251,709	\$ 6,416,147	\$ 6,687,081
Operating Margins	501,891	31,504	331,310
Interest Income	26,307	12,709	14,774
Other Capital Credits & Patronage Dividends	341,107	233,341	283,686
Non-operating margins--Other	(648,549)	487,897	33,138
Patronage Capital or Margins	\$ 220,756	\$ 765,450	\$ 662,908

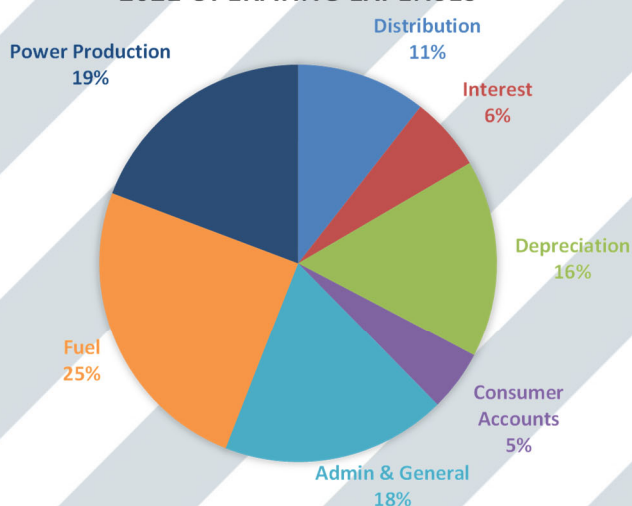
Balance Sheet

ASSETS	2020	2021	EQUITY & LIABILITIES	2020	2021
Plant			Equity		
Plant & CWIP	48,670,662	50,418,453	Patronage Capital	17,535,422	17,914,035
Depreciation	(22,107,584)	(22,222,823)	Current Year Operating Margins	765,450	662,907
Net Plant	26,563,078	28,195,630	Other Equity	292,862	563,200
Current Assets			Total Equity	18,593,734	19,140,142
Cash	2,001,831	1,970,552	Liabilities		
Accounts Receivable	844,297	738,655	Long Term Debt	14,289,022	15,609,499
Other Current Assets	800,387	912,185	Payables	232,784	278,809
Total Current Assets	3,646,515	3,621,392	Consumer Deposits	58,339	53,814
Other Assets			Accrued & Other Liabilities	384,711	347,124
Investments in Patronage	3,232,887	3,361,373	Total Liabilities	14,964,856	16,289,246
Other Assets	116,111	250,994			
Total Other Assets	3,348,998	3,612,367			
TOTAL ASSETS	33,558,590	35,429,389	TOTAL EQUITY & LIABILITIES	33,558,590	35,429,389

2021 OPERATING REVENUES



2021 OPERATING EXPENSES



Annual Meeting Notice

Cordova Electric Cooperative invites all members to participate in the 2022 Annual Meeting.

The Annual Meeting will be held on Monday, March 21st, 2022 in the Mt. Eccles School Gym. Registration will begin at 6:00 pm with the meeting to follow starting at 6:30 pm. The meeting will last approximately one hour with a drawing for prizes at the end.

Due to this being the first in-person Annual Meeting in several years, we will not be serving a meal, but may have a treat available for you to take home.

Annual Meeting Agenda

Monday, March 21, 2022

6:00 pm

Mt. Eccles Elementary School

1. Call to Order and Determine Quorum
2. Reading of Notice of Meeting
3. Approve 2021 Annual Meeting Minutes
4. Election of Board Directors / Bylaw Proposition Results
5. Reports of Officers
6. Unfinished Business
7. New Business
8. Adjournment

Board Director Nominations

At the 2022 Annual Meeting, CEC members will elect two Board Directors to serve three-year terms. The CEC Nominating Committee nominated four members that have agreed to run for Board Director:

Jeremy Botz

RJ Kopchak

Steve Ranney (Incumbent)

Andrew Smallwood

Board of Directors

Joe Cook - Chair

Stephen Phillips - Vice Chair

Steve Ranney - Secretary/Treasurer

Scott Pegau

Alexis Cooper

Rob Campbell

Kristy Andrew

Employees

Management

Clay Koplin - Chief Executive Officer

Scott Newlun - Manager of Distribution

Russ Goss - Manager of Generation

Emma Merritt - Manager of Admin. & Finance

Trever Kudrna - Technology Manager

Leif Stavig - Executive Assistant/HR

Finance Department

Angela Jeppson - Customer Service Rep.

Ann Linville - Customer Service Rep.

Distribution Department

Jeff Field - Distribution Foreman

Ben Simpler - Journeyman Lineman

August Jewell - Apprentice Lineman

Robert Silveira - Apprentice Lineman

Savannah Eike - Staking Tech/Warehouseman

Generation Department

Brian Wagner - Maintenance Operator

Aaron Hansen - Maintenance Operator

Garrett Collins - Apprentice Maint. Operator



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