

ALASKA ENERGY AUTHORITY

# 2020 ANNUAL REPORT TO ALASKANS







THE ALASKA ENERGY  
AUTHORITY (AEA)  
PROVIDES ENERGY  
SOLUTIONS TO MEET THE  
UNIQUE CHALLENGES OF  
ALASKA’S RURAL AND  
URBAN COMMUNITIES.

# CONTENTS

|                                     |    |
|-------------------------------------|----|
| Governor’s Letter                   | 04 |
| About AEA                           | 05 |
| Message from the Chair              | 06 |
| Message from the Executive Director | 07 |
| Owned Assets                        | 08 |
| Power Cost Equalization             | 10 |
| Rural Energy                        | 11 |
| Energy Technology Programs          | 14 |
| Grants and Loans                    | 17 |
| Financial Highlights                | 20 |
| Board of Directors                  | 22 |
| Executive Team                      | 23 |

**Annual Report Requirements:**  
The publication on the activities and financial condition of AEA is submitted in accordance with Alaska Statute (AS) 44.83.940. AEA printed 500 copies of this report in Anchorage, Alaska for \$5.25 per copy. Design and production by AEA. Printed by Service Business Printing.

**Cover Photo:**  
Upside of the West Fork Battle Creek Diversion Project (looking downstream) with the water flowing through the pipe.



## GOVERNOR'S LETTER



**MIKE DUNLEAVY**  
Governor

While 2020 brought many challenges, it also brought newfound hope for a brighter future. Alaska's great potential remains within our reach. Increasing our resilience and our security by modernizing our energy infrastructure, enhancing our efficiency, and diversifying our energy portfolio will help us meet our energy goals while providing economic opportunities to the state.

I look forward to continuing this work with AEA's dedicated team in the year ahead to provide affordable energy to all Alaskans.

Best regards,

Mike Dunleavy  
Governor

As a public corporation of the State of Alaska, the Alaska Energy Authority (AEA) is an important part of Alaskans managing energy costs. The mission of AEA is to reduce the cost of energy for Alaskans, so it is involved with developing energy policy and engaging with electric utilities and all those interested in energy issues.

AEA is responsible for generation and transmission assets on the Railbelt. This includes the Alaska Intertie that serves Interior residents and the Bradley Lake Hydroelectric Project, which provides affordable energy to more than 500,000 Alaskans from Homer to Fairbanks. AEA also oversees an important lifeline to rural Alaska. The Power Cost Equalization (PCE) program provides economic and personal benefits to more than 84,000 Alaskans in over 190 communities.

## ABOUT AEA

*Created in 1976 by the Alaska Legislature, AEA is a public corporation of the State of Alaska governed by a board of directors with the mission to "reduce the cost of energy in Alaska." AEA is the state's energy office and lead agency for statewide energy policy and program development.*



### Owned Assets

AEA owns the Alaska Intertie and the Bradley Lake Hydroelectric Project. These assets benefit Railbelt consumers by reducing the cost of power.



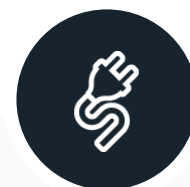
### Power Cost Equalization

The Power Cost Equalization Program reduces the unit cost of electricity in rural Alaska for residential customers and community customers of eligible utilities.



### Rural Energy

AEA constructs bulk fuel tank farms, diesel powerhouses, and electrical distribution grids in rural villages. AEA supports the operation of these facilities through circuit rider and emergency response programs.



### Energy Technology Programs

AEA provides renewable energy and energy efficiency grants, analysis, and expertise. These include hydro, biomass, wind, solar, and others.



### Grants and Loans

AEA provides loans to qualified utilities, local governments, and independent power producers for the construction or upgrade of power generation and other energy facilities.



### Energy Planning

In collaboration with local and regional partners, AEA provides critical economic and engineering analysis to plan the development of cost-effective energy infrastructure.



## SAFE, AFFORDABLE, RELIABLE ENERGY FOR ALL



**J. DANA PRUHS**

Chair

**Our world and our Alaska are markedly different than they were one year ago. In a changing environment, we are either left behind or we change to make the most of new opportunities, and that has been the path we have chosen at AEA.**

Throughout 2020, AEA continued its 45-year record of providing value to Alaskans through prudent management of its owned assets and responsible stewardship of its rural energy programs.

On the Railbelt, AEA owns the Bradley Lake Hydroelectric Project, the largest hydro project in Alaska. Located near Homer, the 120-megawatt facility provides some of the cheapest power in the state to more than 500,000 Alaskans. AEA also owns the Alaska Intertie, a 170-mile-long transmission line between Willow and Healy. In the last decade, AEA, through its ownership and management

of the Intertie, has saved residents in Interior Alaska approximately \$40 million annually.

In rural Alaska, AEA helps to reduce the cost of energy through the Power Cost Equalization (PCE) program. Residents of participating rural communities received \$28 million in PCE disbursements in Fiscal Year 2019. The PCE program serves 84,000 Alaskans in 194 communities that are largely reliant on diesel fuel for power generation.

Complementing PCE, AEA's Rural Power System Upgrade (RPSU) and Bulk Fuel Upgrade (BFU) Programs have leveraged hundreds of millions of dollars in federal funding to construct energy infrastructure in rural communities.

While significant strides have been made to replace aging bulk fuel tank farms and powerhouses, AEA estimates that the current need for RPSU and BFU funding is over \$1 billion.

I commend the leadership and staff for their unwavering commitment to reducing the cost of energy for Alaskans. On behalf of the Board, I look forward to AEA's continued momentum in 2021, as we continue on a path that will deliver sustainable, long-term value to Alaskans. The Board will continue to support the staff and leadership team to ensure that Alaska remains a welcoming place to do business and that its energy mission is met.

## INVESTING IN ALASKA'S FUTURE, DELIVERING TODAY



**CURTIS W. THAYER**

Executive Director

**In a challenging year, AEA's activities and results demonstrate the improved value in our homes and where we work the ever more important place of energy efficiency and renewable energy in Alaska's energy portfolio.**

AEA strives daily to improve the reliability and resilience of Alaska's Railbelt Grid and to decrease costs for Alaska's ratepayers. By its recent purchase from Homer Electric Association of a 39-mile 115-kilovolt transmission line from the Sterling Substation to Quartz Creek, AEA positions itself to bring significant benefits to Railbelt customers including better cost alignment, increased reliability, and the prospect of future upgrades to unconstrain Bradley power.

AEA, in partnership with Chugach Electric Association, City of Seward, Homer Electric Association, and Matanuska

Electric Association, also recently completed the West Fork Upper Battle Creek Diversion Project. The project diverts water from Battle Creek into Bradley Lake. This \$47 million project increases the amount of clean, low-cost energy produced at Bradley Lake by about 10 percent, or 37,000 megawatt-hours of energy annually. The project was the largest improvement to the Bradley Lake facility since it began operation in September 1991.

Another area of focus is making our dollars go further by partnering in projects that not only deliver energy savings but also add value to our economy. AEA was awarded a \$21 million grant from the United States Department of Transportation to participate in the construction of a cargo storage facility at the Ted Stevens Anchorage International Airport. The Alaska Cargo and Cold Storage (ACCS) project is a public-private partnership with McKinley Capital Management, LLC and partners. The grant funds AEA's participation in Phase 1 of a 715,000-square-foot \$220 million state-of-the-art facility boosting the airport's value as an international shipping hub between the U.S. and Asia. By partnering with AEA, ACCS reduces development costs and benefits from AEA's expertise as it incorporates best-in-class energy efficiency in its facility.

As AEA's Executive Director, my personal goal is to support projects that will provide energy and economic benefits for the state. And as AEA celebrates its 45th year serving Alaskans, we'll continue to seek out opportunities that deliver a steady reduction in the cost of energy for both rural and urban communities.



## OWNED ASSETS

As the owner of significant Railbelt generation and transmission assets, AEA ensures that sound public policy and energy initiatives maximize benefits to the broadest group of stakeholders.

### ALASKA INTERTIE

The Alaska Intertie is a 170-mile long, 345 kilovolt (kV) transmission line between Willow and Healy. The line is owned by AEA and operates at 138 kV. The Intertie connects Golden Valley Electric Association (GVEA), the utility that serves areas north of the Alaska Range, with Southcentral Alaska utilities. It was constructed in the mid-1980s with \$124 million of State appropriations and has no debt service.

The Intertie provides significant cost savings through the transmission of economy energy to GVEA. It delivers to GVEA its power share of Bradley Lake and enables the sharing of reserve generation capacity between the Anchorage and Fairbanks load centers. The operation of the Intertie is governed by the Alaska Intertie Agreement signed in 1985 and amended thereafter. The parties to the agreement are AEA, GVEA, Chugach Electric Association, and Matanuska Electric Association. Each of these entities has a seat on the Intertie Management Committee (IMC), which has responsibility for managing the Intertie.

Through AEA's leadership as an IMC member and with its step-in rights on financial decisions regarding the intertie, AEA is uniquely positioned to ensure that ratepayers across the electrically interconnected Railbelt region benefit as intended under the current Alaska Intertie Agreement.

### BRADLEY LAKE HYDROELECTRIC PROJECT

AEA owns the Bradley Lake Hydroelectric Project, the largest hydro project in Alaska. Located near Homer, the 120-megawatt facility provides some of the lowest-cost power in the state to more than 500,000 Alaskans. The project consists of a 125-foot high, concrete-faced, rock-filled dam structure; three diversion structures; a 3.5-mile long power tunnel and vertical shaft; generating plant; an interior substation; and an external substation, and 20 miles of transmission line. The power generation potential of Bradley Lake was first studied in 1955 by the U.S. Army Corps of Engineers. AEA, then the Alaska Power Authority, assumed responsibility for the project in 1982.



Contractors at the West Fork Upper Battle Creek Diversion project site fuse two sections of high-density polyethylene pipe using the world's largest fusion welding machine, which was brought in from the Lower-48.

The project began commercial operation on September 1, 1991, and has been producing power ever since. To date, the total project costs including the West Fork Upper Battle Creek (WFUBC) Diversion Project, is approximately \$400 million. The Bradley Lake project was funded through legislative appropriations and AEA revenue bonds that are being repaid by the participating utilities. The Bradley Lake Project Management Committee generally manages the project, subject to AEA's non-delegable rights, duties, and responsibilities.

In October 2020, AEA, along with our partners Chugach Electric Association, City of Seward, Homer Electric Association (HEA), and Matanuska Electric Association, completed the WFUBC Project to divert water from Battle Creek into Bradley Lake. This \$47 million project increased the amount of clean, low-cost energy produced at Bradley Lake by about 10 percent, or 37,000 megawatt-hours of energy annually. The project was the largest improvement to the Bradley Lake project since it began operation.

In January 2021, the American Council of Engineering Companies of Montana selected the West Fork Upper Battle Creek Diversion (WFUBCD) Project for the 2021 Montana Grand Project Award. The award recognizes projects that have applied unique or innovative technologies, enhanced awareness for the engineering profession, utilized social, economic, and sustainable

design, and successfully fulfilled the client/owner's needs, including schedule and budget.

AEA is also improving the reliability and resilience of Alaska's Railbelt Grid and decreasing costs for ratepayers by its purchase from HEA of a 39-mile 115-kilovolt transmission line for \$17 million that runs between the Sterling Substation and Quartz Creek (SSQ Line). The SSQ Line is a critical component of the Railbelt transmission system. This historic transaction brings significant benefits to Railbelt customers including better cost alignment, increased reliability, and the prospect of future upgrades to unconstrain Bradley power.



During a flyover, Governor Mike Dunleavy views a Kenai transmission line damaged by the Swan Lake Fire in August 2019.

In 2019, GVEA ratepayers achieved a savings of more than \$40 million as a result of power transmission over the Intertie.



## POWER COST EQUALIZATION

[The Power Cost Equalization Program \(PCE\) was enacted to somewhat equalize the cost of electrical power between urban and rural Alaska.](#)

The PCE program makes payments to eligible rural electric utility companies and those companies credit their residential and community facility customers with payments made from the program up to a level of consumption. Those payments result in a reduction of the unit cost of power to residential and community customers. The pre-PCE cost of electricity in rural communities is almost always significantly more than the electricity costs borne by customers in Alaska's urban areas. Residential and community facility buildings and assets in nearly 200 communities see the benefits of PCE credits.

AEA calculates the amount an eligible electric utility is due based on a filing made by the utility and issues monthly payments. The PCE program staff also provides technical assistance to utility clerks who need help preparing and filing PCE reports. The PCE disbursements are funded from the PCE Endowment Fund. AS 42.45.085 provides that five percent of the PCE Endowment Fund's three-year monthly average market value may be appropriated to the

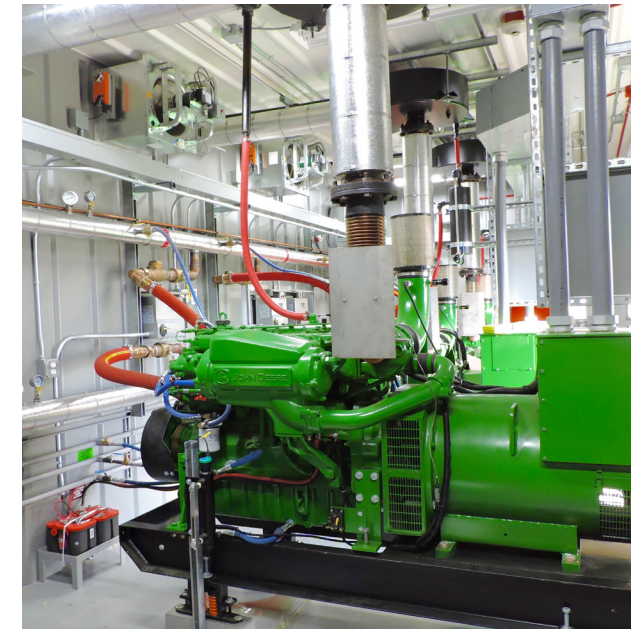
PCE program. Only in recent years has the five-percent draw on the endowment been sufficient to fully fund PCE disbursements. In Fiscal Year 2018, due to statutory changes made addressing how excess PCE Endowment Fund earnings are used has the PCE Endowment fully funded the program's administrative costs and been sufficient to contribute \$30 million to local governments through the state's community assistance program and been able to provide an additional benefit of funding for the Renewable Energy Fund and for some Rural Power System Upgrade projects.

AEA is now using a web portal to accept monthly filings from utility companies. The electronically filed monthly reports reduce time in processing reports and results in sooner payments. As the web portal gains broader acceptance and after all utility companies are trained in its use there will likely also be a reduction in administrative costs and better security for electronic fund disbursements.



## RURAL ENERGY

[AEA is an essential partner with all of rural Alaska. Its policies emphasize community-based project management. Through innovation and collaboration, AEA provides the tools and the guidance necessary for all rural communities to embrace a better energy future.](#)



### RURAL POWER SYSTEM UPGRADE

AEA's Rural Power Systems Upgrade (RPSU) program builds and retrofits facilities in communities of less than 2,000 people, providing stable and reliable power. The typical efficiency improvement in diesel generation is between 10 and 20 percent. Upgrades may include efficiency improvements, powerhouse upgrades or replacements, line assessments, demand-side enhancements, heat recovery, and repairs to generation and distribution systems. The Denali Commission is AEA's major federal funding partner, which requires a state match of 50 percent for non-distressed communities or 20 percent for distressed communities.

The RPSU program also manages the State's allocation through the Environmental Protection Agency's (EPA's) Diesel Emissions Reduction Act (DERA). Pending yearly

funding from Congress, states can apply for DERA funds based on population. In addition to the state program, EPA also a tribal DERA program that awards funds competitively nationwide. AEA uses DERA funds exclusively to replace prime power diesel engines in rural Alaska. AEA selects communities for engine replacement through the DERA program based on current engine condition, redundancy, efficiency, and engine eligibility.

In Calendar Year 2020, AEA completed two RPSU powerhouse replacement projects, in Akhiok and Twin Hills. Additional RPSU design and construction work, including engine replacement with DERA funds, was completed in Chignik Lake (two engines), Circle (two engines), Takotna (two engines), and Tuluksak (one engine).

AEA has switched emphasis from full facility replacement to improving operations and maintenance to maximize the benefit to rural power systems. There are currently 21 active Maintenance and Improvement (M&I) projects, which target high return investment in eligible community power systems. Typical projects include replacing old switchgear and control systems, maximizing heat recovery, and updating engine controls to improve efficiency.

The deferred maintenance for RPSU is estimated at approximately \$327 million.



## BULK FUEL UPGRADE

Rural Alaska depends on liquid fuels for most of its energy needs: diesel for power generation, and heating and gasoline for transportation. Most rural villages are located along rivers or on the coast, so fuel is delivered primarily by barge. Delivery is often limited by season or weather. Most communities receive barge fuel deliveries once or twice a year.

Many of rural Alaska's bulk fuel facilities were built in the mid-1900s and do not comply with modern regulations. Yet they typically continue in service until upgraded or replaced, posing risks to personal safety and the environment.

AEA's Bulk Fuel Upgrade (BFU) program repairs or upgrades fuel storage facilities in communities with fewer than 2,000 residents. These facilities help decrease the per-unit cost of fuel by allowing the community to purchase fuel in bulk quantities. To date, AEA has performed 133 bulk fuel upgrades, and nine more are in design or construction.

In recent years, AEA has switched its emphasis from bulk fuel facility replacement to Maintenance and Improvement (M&I) projects. There are 16 M&I projects planned currently which target high-return investment in eligible community power systems. In Calendar Year 2020, AEA completed one full-facility BFU project in Shaktoolik.

The deferred maintenance cost for BFU is estimated at approximately \$800 Million.

## CIRCUIT RIDER AND TECHNICAL ASSISTANCE

AEA's Circuit Rider's assisted 454 eligible utilities in Calendar Year 2020, providing remote monitoring, training, technical consultation. On-site assistance, and minor repairs to power systems we performed in 45 communities. The Circuit Rider and Technical Assistance programs provide essential assistance to reduce the

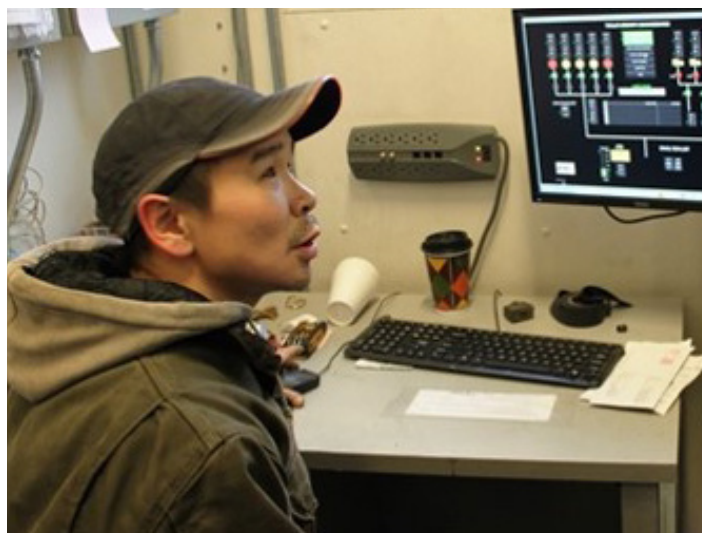
number of emergency responses that are needed when there are power outages in rural communities.

## ELECTRICAL EMERGENCY ASSISTANCE

AEA provides power-related electrical emergency assistance to rural communities. Electrical emergency assistance encompasses risk to life or property due to power failure. Thankfully this assistance is rarely needed. In Calendar Year 2020, no emergency responses were required. This is due largely to the attentive focus of circuit rider and training programs.

## RURAL TRAINING PROGRAM

AEA's Rural Training Program provides operators with the skills necessary to operate their energy infrastructure and keep their facilities code compliant and operational. In Calendar Year 2020, 45 operators from 21 communities were trained in Bulk Fuel and Power Plant Operations, Advanced Power Plant Operations, and by training courses at the Alaska Vocational Technical Center. Twenty-one communities received onsite training in bulk fuel operations. AEA is pioneering the use of 3D imaging coupled with data from each rural powerhouse to create new ways for operators to learn about their site-specific needs. AEA has also developed an online training curriculum around the same technology to decrease the cost of travel and to expand the training audience.



**MANY OF RURAL  
ALASKA'S BULK FUEL  
FACILITIES WERE BUILT  
IN THE 1950-60S AND  
ARE AT THE END OF  
THEIR USEFUL LIVES.**



***AEA's BFU program replaces and repairs or upgrades fuel storage facilities in communities with fewer than 2,000 residents. These facilities help decrease the per-unit cost of fuel by allowing the community to purchase fuel in bulk quantities.***



# ENERGY TECHNOLOGY PROGRAMS

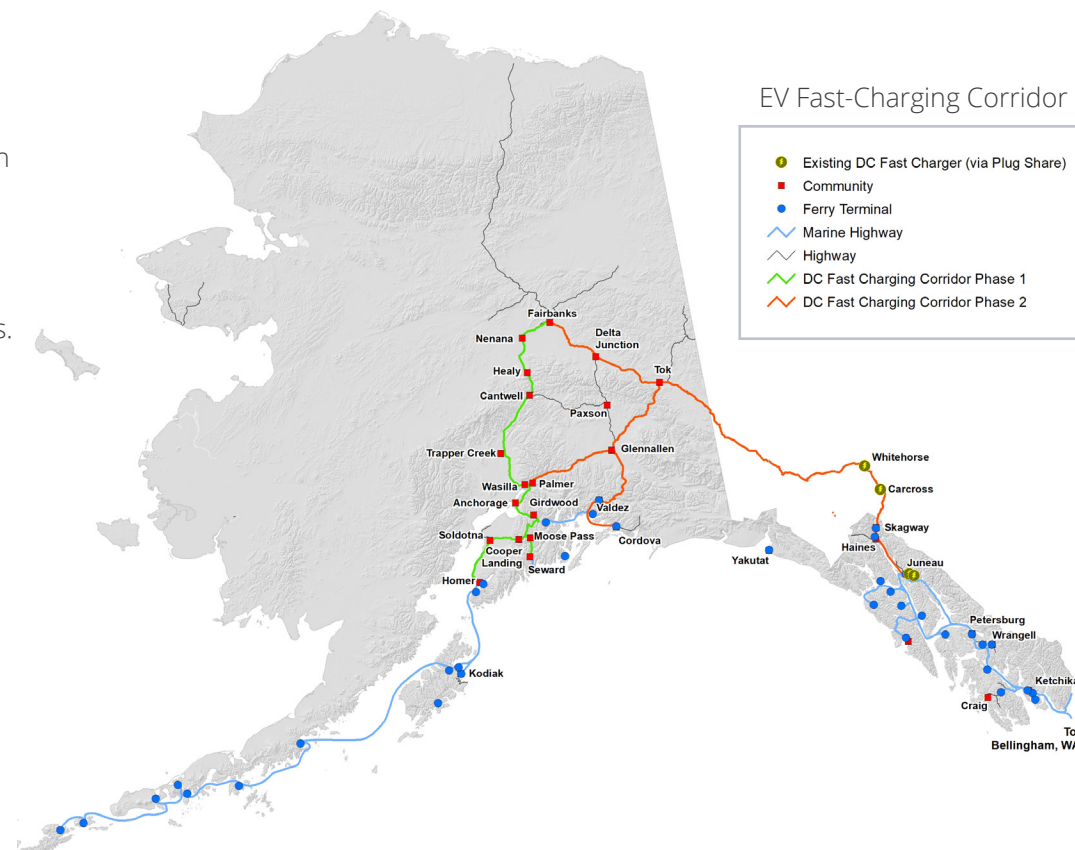
[Alternative energy and energy efficiency programs increase statewide knowledge around the installation and operation of cost-effective energy efficiency projects and renewable energy systems by providing technical workshops, hands-on and online training, technical assistance, and funding.](#)

## BIOMASS

Biomass heat reduces diesel fuel use and keeps the money for fuel (wood) within the community. AEA's biomass program has funded over 20 operating woody biomass heating systems for schools and public buildings. Along with the United States Forest Service, the program has funded over 170 preliminary studies to evaluate a community's biomass potential and develop sustainable harvest plans. Biomass is reducing diesel fuel consumption and creating local jobs.

## ELECTRIC VEHICLES

Alaska intends to allocate 15 percent of the Volkswagen (VW) Trust funds (~\$1.2 million) to develop an electric vehicle (EV) fast-charging corridor and install community-based Level 2 charging stations over the next few years. In 2020, AEA facilitated the development of the Alaska Electric Vehicle Working Group (AKEVWG), composed of representatives of utilities, state and local government, ACEP, EV owners, and stakeholder industries. The AKEVWG meets quarterly and holds technical meetings on impediments to EV market adoption, utility demand fees, and siting criteria. AEA has funded the Department of Transportation and Public Facilities to install Level 2 chargers at several State-owned facilities. AEA continues to pursue funding opportunities to leverage the State's VW Trust funds.



## ENERGY EFFICIENCY

Efficient production and consumption save costs, reduces demand, and are often the lowest hanging fruit for energy solutions. It is available in every community in Alaska.

Last year, AEA's Energy Efficiency program leveraged federal State Energy Program funds and a grant from Wells Fargo to meet our mission. Through a public partnership, AEA's Village Energy Efficiency Program (VEEP) received a \$1 million grant from Wells Fargo to provide 47 communities with outdoor lighting retrofits. The local match was \$397,000, for a total investment of nearly \$1.1 million. The project also leveraged Denali Commission funds. With \$428,483 of Denali Commission funds and a local match of \$110,917, AEA enabled 17 additional communities the same opportunity. The project's to date expenditures total \$2,156,851. Despite the COVID-19 pandemic, communities have actively implemented their projects. Fifteen sites are complete, 725 lights have been replaced, and 308,024 kilowatt-hours (kWh) per year will be saved. Cost per kWh in these communities ranges between \$0.19 – \$0.86.

Efficiency program staff increased access to financing markets and developed mechanisms to attain private dollars with the Alaska C-PACE Program. AEA was awarded \$300,000 from the Department of Energy to stand up a Commercial Property Assessed Clean Energy (C-PACE) program. AEA is matching 20 percent — total project \$360,000. AEA contracted with various entities for technical assistance and a market study on commercial properties across the state. By 2022, AEA hopes to have Alaska C-PACE enabled in three municipalities in Alaska. In November 2020 the Municipality of Anchorage was the first community in the state to adopt its enabling ordinance.

## ALASKA CARGO AND COLD STORAGE

AEA was awarded a \$21 million grant from the U.S. Department of Transportation to participate in the construction of a cargo storage facility at the Ted Stevens Anchorage International Airport. The project, known as the Alaska Cargo and Cold Storage, is a public-private partnership with McKinley Capital Management, LLC and partners. The grant funds AEA's participation in Phase 1 of an approximately 715,000-square-foot \$220 million state-of-the-art facility boosting the airport's value as an international shipping hub between the U.S. and Asia. By partnering with AEA for federal funding, ACCS reduces development costs and benefits from AEA's expertise as it incorporates best-in-class energy efficiency in its facility.







## HYDROELECTRIC

As Alaska's largest source of renewable energy, hydropower supplies more than 20 percent of the state's electrical energy in an average water year. AEA's hydroelectric program assists approximately 51 utility-scale hydroelectric projects throughout the state. The majority of Alaska's existing hydro projects are located in the Southeast and Southcentral regions of Alaska. Projects range from concepts to operational hydroelectric facilities. The hydroelectric program focuses on improving efficiency and quality in development, lowering the cost of construction, and coordinating with State, federal, municipalities, tribal entities, and private investors in analyzing, planning, and generally assisting hydroelectric project development.

## WIND

Alaska's coastline, mountain tops, and passes have long been studied as locations where wind can be harvested for energy capture. Today Wind energy accounts for 2.4 percent of the state's total energy production and that percentage is growing. Since 2012, Alaska's wind energy capacity has increased 400 percent. This growth is supported by AEA's Renewable Energy Fund and the sharing of information with wind energy producers and stakeholders. AEA's Alaska Wind Working Group and its Wind Advisory Panel meet regularly over policy issues to advance wind energy. Funding for wind projects is a frequent topic at these meetings. In partnership with the Wind Working Group, AEA facilitates annual educational events including the wind-diesel and energy storage workshops. AEA's assistance to communities evaluating wind energy has often aided rural community decision-making.



# GRANTS AND LOANS

Another contribution AEA makes to those in the energy space is its administration of funding programs. AEA monitors external funding sources including Tribal and Indian Energy loan programs, U.S. Department of Energy (USDOE) funding opportunities, and other funding opportunity announcements. AEA has a strong relationship with the USDOE Alaska Energy Office and anticipates awareness of new funding streams and technical assistance that become available because of that relationship and because of connections with National Laboratories.

## RENEWABLE ENERGY FUND

The Renewable Energy Fund (REF) exists to help Alaskans reduce and stabilize their cost of energy through the development of renewable energy projects. The program is designed to produce cost-effective renewable energy for heat and power to benefit Alaskans statewide.

To date, REF has made 287 grants to develop or construct renewable energy projects statewide. There are now over 90 operating projects built with contributions from REF, collectively saving more than 30 million gallons of diesel each year. Annual renewable energy generation increases each year as more REF-funded projects progress through the construction phase and become operational. From 2008 through 2019, \$268 million were made available to REF projects. State funding has been matched with

hundreds of millions of dollars from other sources to develop renewable energy projects designed to reduce and stabilize the cost of energy in Alaska.

In Fiscal Year 2020 AEA solicited applications for Renewable Energy Fund Grants and has forwarded to the legislature 11 eligible renewable energy projects with recommendations that the legislature fund each one. The projects were evaluated by AEA staff and external consultants and have been carefully considered by the Renewable Energy Fund Advisory Committee. The legislature will consider AEA's recommendations for funding in future fiscal years.

The authorization of the REF grant program expires on June 30, 2023.





## POWER PROJECT FUND

AEA administers loan requests from applicants seeking low-interest loans that qualify for its Power Project Fund (PPF) loan program. This loan funding program provides local utilities, local governments, or independent power producers with an opportunity to seek funding for the development, expansion, or upgrade of electric power facilities, including distribution, transmission, efficiency and conservation, bulk fuel storage, and waste energy. The PPF loan term is related to the project's useful life, but cannot exceed 50 years. The interest rate calculation for a PPF loan is formula-driven and related to the 30-year taxable municipal bond yield. Loan requests of more than \$5 million require legislative authorization.



Baxter Senior Living, a senior living community in Anchorage, holds a ribbon cutting ceremony to commission the Yanmar Combined Heat and Power (CHP) system, the largest installation of its kind in Alaska. The CHP system will produce the senior community's electricity from natural gas it is burning for heat. AEA provided the financing to make the project viable through its PPF loan program.

*“AEA constantly seeks out opportunities that benefit Alaskans — and Baxter Senior Living is a great example of this.”*

*AEA Executive Director Curtis W. Thayer*

## VOLKSWAGEN SETTLEMENT FUNDS

On January 29, 2018, Alaska became the beneficiary of an \$8.125 million “Volkswagen (VW) Settlement.” AEA is the State's lead agency to develop and implement a Beneficiary Mitigation Plan to distribute the funds to eligible mitigation actions that result in a total lifetime reduction of nitrogen oxides (NOx) emissions by 10.5 short tons. Several projects have been selected thus far to reduce NOx emissions by more than 2.5 times Alaska's mitigation goal. A summary of the disbursement of funds underway includes:

### Replacement of Diesel Engines used for Prime Power (~\$813,000 + match funds)

AEA has set aside Trust funds as a voluntary match for AEA's Diesel Emission Reduction Act (DERA) program to fully leverage the federal funds allocated to the State by the EPA. By contributing the voluntary match, the State can receive 50 percent more EPA DERA funds to replace diesel engines or gensets in rural powerhouses. Engine/genset replacement projects were completed in summer and fall 2020 in Chignik Lake (2), Circle (2), Takotna (2), and Tuluksak (1). Replacements are expected to occur in Arctic Village (3) and Chenega Bay (2) during 2021.

### All-electric Garbage and Box Trucks (~\$25,000)

AEA has committed \$25,000 to the Municipality of Anchorage towards the purchase of an energy-storage-based fast charger for their new all-electric garbage truck and electric box truck.

### Public Transit Bus Replacement (~\$234,000)

AEA's funded 20 percent of an all-electric bus purchased by the City and Borough of Juneau, Capital Transit. The bus was ordered in 2020 and is expected to be operational in spring 2021.

### School Bus Replacement (~\$4.3 million)

The following school districts were awarded new school buses and have put them into service or will when in-person school resumes: Alaska Gateway (Tok) (1), Anchorage (13), Juneau (1), Kake City (2), Kenai Peninsula Borough (7), Kodiak Island (1), Matanuska-Susitna Borough (4), and Southeast Island (Prince of Wales Island) (4).

The school bus in Tok is the first all-electric school bus in the State of Alaska and only the third electric school bus manufacturer Thomas has ever made.





## FY2020 FINANCIAL HIGHLIGHTS\*

| BALANCE SHEETS                                    | June 30, 2020    | June 30, 2019    |
|---------------------------------------------------|------------------|------------------|
| <b>Assets and deferred outflows of resources:</b> |                  |                  |
| Restricted Investments securities and cash        | 1,180,885        | 1,204,632        |
| Loans, net                                        | 27,032           | 24,742           |
| Capital assets, net                               | 388,046          | 375,972          |
| Receivables and other assets                      | 3,919            | 4,244            |
| <b>Total Assets</b>                               | <b>1,599,882</b> | <b>1,609,590</b> |
| <b>Liabilities and net position:</b>              |                  |                  |
| Liabilities                                       |                  |                  |
| Bonds payable                                     | 63,684           | 74,709           |
| Other bond liabilities                            | 1,052            | 1,269            |
| Payables and other liabilities                    | 1,096,980        | 1,090,582        |
| <b>Total liabilities</b>                          | <b>1,161,716</b> | <b>1,166,560</b> |
| <b>Net Position</b>                               | <b>438,166</b>   | <b>443,030</b>   |
| <b>Total liabilities and net position</b>         | <b>1,599,882</b> | <b>1,609,590</b> |

| REVENUES, EXPENSES, AND CHANGES IN NET POSITION | June 30, 2020 | June 30, 2019 |
|-------------------------------------------------|---------------|---------------|
| <b>Operating revenue:</b>                       |               |               |
| Federal grants                                  | 7,845         | 3,552         |
| Revenue from operating plants                   | 21,361        | 21,035        |
| State operating and capital revenues            | 4,719         | 20,444        |
| Interest on loans                               | 362           | 347           |
| Other operating revenues                        | 1,684         | 792           |
| <b>Total operating revenues</b>                 | <b>35,971</b> | <b>46,170</b> |

| REVENUES, EXPENSES, AND CHANGES IN NET POSITION | June 30, 2020    | June 30, 2019      |
|-------------------------------------------------|------------------|--------------------|
| <b>Operating Expenses:</b>                      |                  |                    |
| Grants and projects                             | 18,714           | 20,213             |
| Power cost equalization grants                  | 29,255           | 28,369             |
| Interest expense                                | 827              | 1,746              |
| Plant operating                                 | 5,376            | 5,350              |
| General and administrative                      | 5,742            | 5,672              |
| Provision for loan loss                         | 61               | 169                |
| Loss on disposal of asset                       | —                | —                  |
| Depreciation                                    | 10,917           | 10,862             |
| State of Alaska appropriations and transfers    | 21,288           | 1,097,628          |
| Other project expenses                          | —                | —                  |
| <b>Total operating expense</b>                  | <b>92,180</b>    | <b>1,170,009</b>   |
| <b>Operating loss</b>                           | <b>(56,209)</b>  | <b>(1,123,839)</b> |
| Investment Income, net                          | 51,411           | 78,008             |
| State of Alaska reappropriations and transfers  | (66)             | (67)               |
| Capital contributions                           | —                | 1                  |
| <b>Increase (decrease) in net position</b>      | <b>(4,864)**</b> | <b>1,045,897</b>   |

\*Unaudited — Derived from Audited Financial Statements.

\*\*In FY19, the State of Alaska's Department of Law opined that the PCE Endowment Fund was subject to the State's general fund unobligated fund balance sweep of certain money into the State's Constitutional Budget Reserve. On June 30, 2019, \$1.05 billion was swept, with the reversal of the sweep, pursuant to legislation, happened on July 1, 2019. The same sweep process occurred on June 30, 2020, which netted the reversal from FY19 with the FY20 sweep amount of \$1.06 billion. FY20 is the first year that the reversal and new sweep occurred creating an increase to the overall net position. We anticipate the PCE Endowment Fund will be subjected to the sweep each fiscal year.



## BOARD OF DIRECTORS



**Dana Pruhs**  
Chair, Public Member



**Bernie Karl**  
Vice Chair, Public Member



**Julie Anderson**  
Commissioner, Department of  
Commerce, Community and  
Economic Development



**Albert Fogle**  
Public Member



**Bill Kendig**  
Public Member



**Anna MacKinnon**  
Special Assistant to the  
Commissioner Alaska  
Department of Revenue



**Julie Sande**  
Public Member

## EXECUTIVE TEAM



**Curtis W. Thayer**  
Executive Director



**Amy Adler**  
Acting Chief Financial Officer



**T.W. Patch, JD**  
Director of Planning



**Tim Sandstrom, PMP**  
Director, Rural Programs



**Linda Senn, Ph.D.**  
Human Resources Director



**Kirk Warren, P.E., PMP**  
Director, Engineering and  
Energy Development



**Salina Bearden**  
Controller



**Brandy M. Dixon**  
Communications Director





ALASKA ENERGY AUTHORITY

# **2020** **ANNUAL REPORT** **TO ALASKANS**

813 W Northern Lights Blvd.  
Anchorage, AK. 99503  
(888) 300-8534  
[info@akenergyauthority.org](mailto:info@akenergyauthority.org)  
[akenergyauthority.org](http://akenergyauthority.org)