ALASKA ENERGY AUTHORITY

AEA FISCAL YEAR 2024 CAPITAL BUDGET

Curtis W. Thayer
Executive Director

House Finance Committee
April 21, 2023

ALASKA ENERGY AUTHORITY

About AEA

AEA's mission is to reduce the cost of energy in Alaska. To achieve this mission, AEA strives to diversify Alaska's energy portfolio — increasing resiliency, reliability, and redundancy.

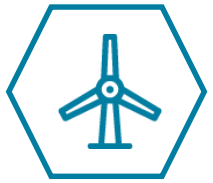
Railbelt Energy – AEA owns the Bradley Lake Hydroelectric Project, the Alaska Intertie, and the Sterling to Quartz Creek Transmission Line — all of which benefit Railbelt consumers by reducing the cost of power.

Power Cost Equalization (PCE) – PCE reduces the cost of electricity in rural Alaska for residential customers and community facilities, which helps ensure the sustainability of centralized power.

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.

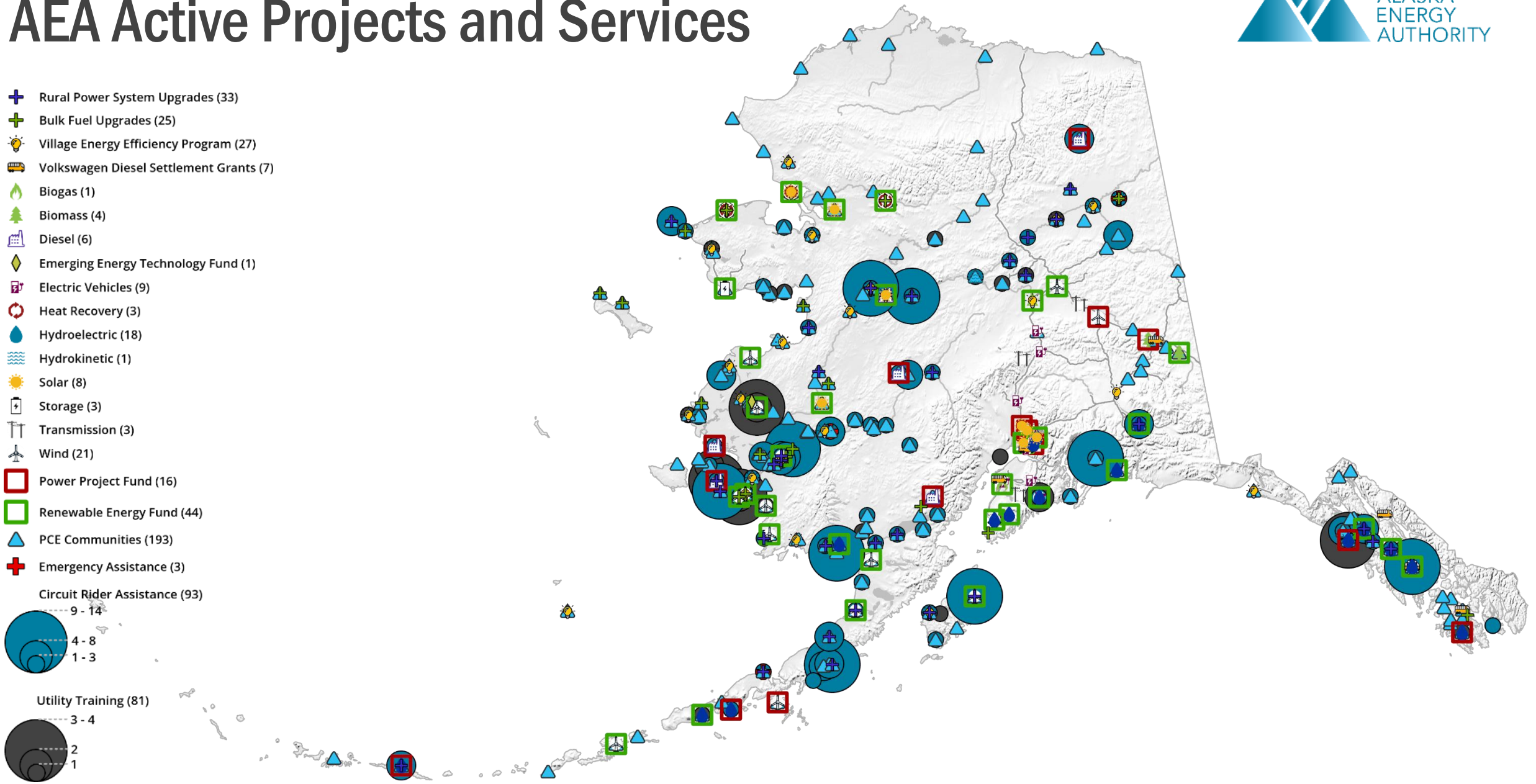
Renewable Energy and Energy Efficiency – AEA provides funding, technical assistance, and analysis on alternative energy technologies to benefit Alaskans. These include biomass, hydro, solar, wind, and others.

Grants and Loans – AEA provides loans to local 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 economic and engineering analysis to plan the development of cost- effective energy infrastructure.

AEA Active Projects and Services



FISCAL YEAR 2024 CAPITAL REQUESTS

FY2024 Capital Budget Overview

ALASKA ENERGY AUTHORITY

Project/Program	Budget Year	Federal	State UGF	Total
IIJA - Statewide Grid Resilience and Reliability Formula	FY24	12,110,523	1,816,579	13,927,102
IIJA - New Energy Efficiency Revolving Loan Fund Capitalization	FY24	3,773,780	-	3,773,780
IIJA - State Energy Program	FY23 Supplemental	2,865,930	-	2,865,930
IIJA - EV Charging Equipment Competitive	FY24	1,670,000	-	1,670,000
IIJA - Energy Auditor Training	FY24	63,600	-	63,600
IRA - Home Energy and High Efficiency Rebate Allocations	FY24 Amended	74,519,420	-	74,519,420
DOD - Black Rapids Training Site: Defense Community Infrastructure Pilot Program	FY23 Supplemental	12,752,540	-	12,752,540
Rural Power Systems Upgrades	FY24	25,000,000	7,500,000	32,500,000
Renewable Energy Fund Round 15	FY24 Amended	-	7,500,000	7,500,000
Bulk Fuel Upgrades	FY24	7,500,000	5,500,000	13,000,000
Hydroelectric Development - Dixon & Godwin Creek Studies	FY24	-	5,000,000	5,000,000
Renewable Energy & Efficiency Programs	FY24	-	5,000,000	5,000,000
Delta Phase 3 Power	FY24		3,000,000	3,000,000
Electrical Emergencies	FY24	-	200,000	200,000
TOTAL		**140,255,793**	**35,516,579**	**175,772,372**

*National Electric Vehicle Infrastructure Formula Program (funds from Department of Transportation RSA) - $52 million over five years.

Capital Request: State Match – $1.8 Million
Federal Receipt Authority – $12.1 Million

Statewide Grid Resilience and Reliability IIJA Formula

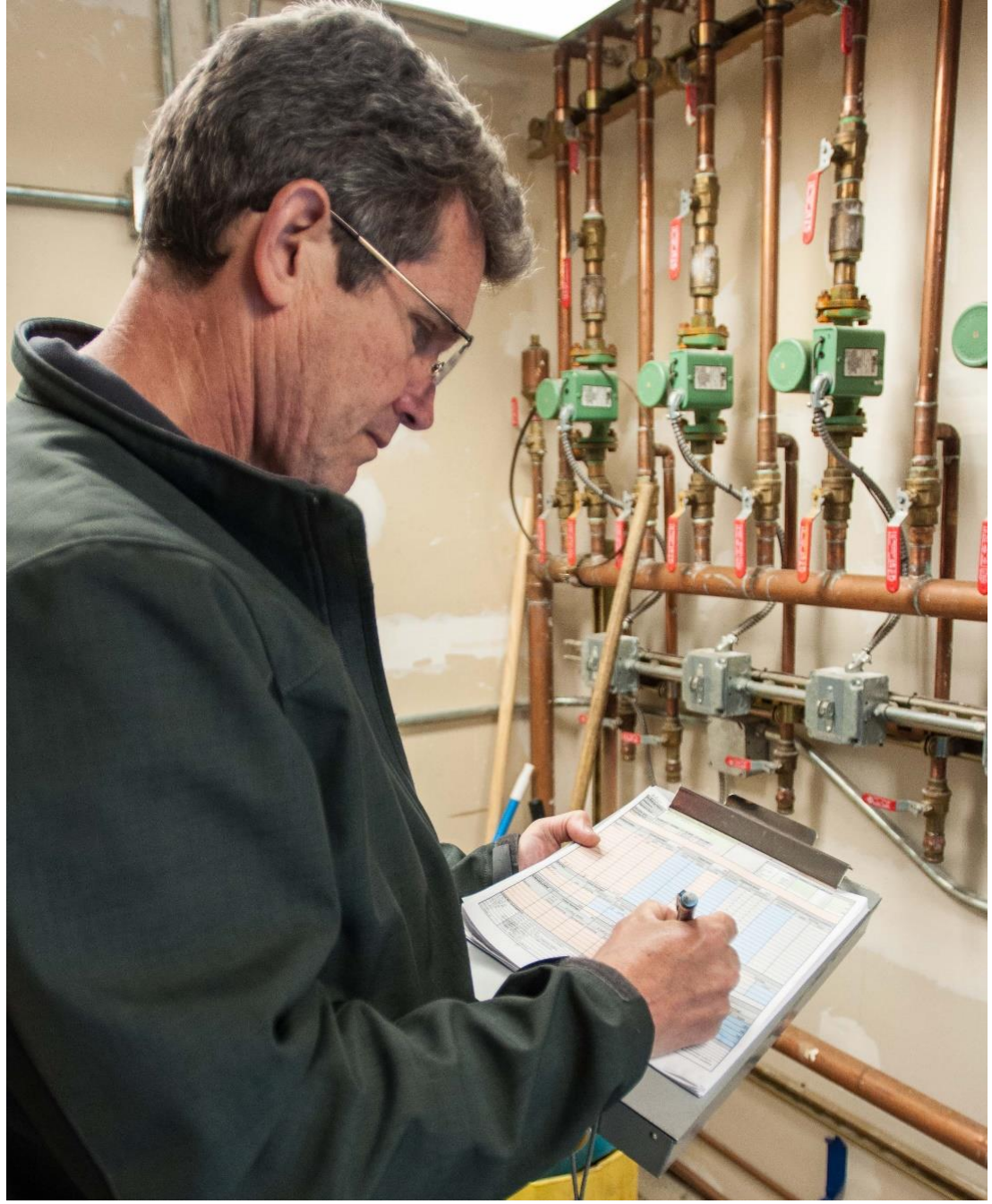
Per IIJA section 40101(a)(1),8 a disruptive event is defined as "an event in which operations of the electric grid are disrupted, preventively shut off, or cannot operate safely due to extreme weather, wildfire, or a natural disaster."

- These federal formula grant funds will provide **$60 million** to Alaska over five years. AEA's application to be submitted by March 31, 2023, will cover those allocations for the **first two funding years, or approximately $22.2 million**.
- Resilience measures include but are not limited to:
  - Relocating or reconductoring powerlines
  - Improvements to make the grid resistant to extreme weather
  - Increasing fire resistant components
  - Integrating distributed energy resources like microgrids and energy storage
- Formula-based funding requires a **15% state match**.

Federal Receipt Authority – $3.8 Million

New Energy Efficiency Revolving Loan Fund Capitalization

- The Infrastructure Investment and Jobs Act provides funding for a new **Energy Efficiency Revolving Loan Fund (EERLF) program**.
- This funding will be used to **establish and capitalize a revolving loan fund**, under which the State shall provide loans and grants for commercial and residential energy audits, upgrades, and retrofits to increase energy efficiency, physical conform and air quality of existing building infrastructure.
- In collaboration with the Alaska Housing Finance Corporation, **AEA will administer the EERLF** commercial loans/grants program.
- **No State match is required.**



Federal Receipt Authority – $2.8 Million

ALASKA ENERGY AUTHORITY

State Energy Program

- This request is for the balance of **Alaska's allocation for the State Energy Program (SEP) formula awards** in the Infrastructure Investment and Jobs Act.
- **AEA is developing activities for deployment that include**:
  - Statewide Energy Plan
  - State Energy Security Plan
  - Renewable Energy Fund and Village Energy Efficiency Program construction projects
  - IIJA Required Grid Planning
  - Training and Workforce Development
- **In collaboration with Alaska Housing Finance Corporation**:
  - Update AkWarm Energy Modeling Software to the requirements imposed by the Inflation Reduction Act.
  - Modernize Alaska Retrofit Information Systems database to accept the AkWarm modifications.
- **No State match is required.**

Federal Receipt Authority – $1.6 Million

EV Charging Equipment Competitive

- AEA applied for Infrastructure Investment and Jobs Act funding through the Office of Energy Efficiency and Renewable Energy Vehicle Technologies Office, **Area of Interest 9: Community-Driven Electric Vehicle Charging (EV) Deployment in Underserved Communities**.

- The **goals of this project** are to:
  - 1) increase access to vehicle electrification in multiple rural and underserved communities across Alaska;
  - 2) demonstrate the benefits of EVs to key decision-makers and the broader public to accelerate clean transportation transition; and
  - 3) support the development of community charging equipment.

- A 20% match is required, shared by AEA and project partners.

AEA is working with partners across Alaska to support vehicle electrification in rural, low-income, and Tribal communities to ensure an equitable and just transition to clean transportation.

Federal Receipt Authority – $63,600

Energy Auditor Training

AEA is coordinating with the Alaska Housing Finance Corporation to administer the Energy Auditor Training Grant Program.

- As part of the Infrastructure Investment and Jobs Act funds will be allocated to the State Energy Program to fund the **Energy Auditor Training Grant Program,** which will train individuals to conduct energy audits or surveys of commercial and residential buildings. It is intended to (1) develop a clean energy workforce, (2) lower energy bills, and (3) reduce pollution from building energy use.
- **Eligible fund uses include** (1) costs associated with individuals being trained or certified to conduct energy audits by i) the State; or ii) a State-certified third-party training program; and (2) to pay the wages of a trainee during the period in which the trainee receives training and certification.
- This request is for two of a five-year annual funding allocation of $318,000.
- **No State match is required**.

Home Energy and High Efficiency Rebate Allocations

AEA collaborating with the Alaska Housing Financing Corporation to distribute Alaska's allocation of $74 Million

Federal Receipt Authority – $37.4 Million

Alaska Hope for Homes

- Rebates for energy efficiency retrofits range from $2,000-$4,000 for individual households and up to $400,000 for multifamily buildings.
- Grants to states to provide rebates for home retrofits.
- Up to $2,000 for retrofits reducing energy use by 20% or more, and up to $4,000 for retrofits saving 35% or more.
- Maximum rebates double retrofits of low-and moderate-income homes.
- **No State match is required.**

Federal Receipt Authority – $37.1 Million

High Efficiency Electric Home Rebate Allocation

- Develop a high efficiency electric home rebate program.
- Include means testing and will provide 50% of the cost for incomes 80 to 150% of area median income, and 100% of the cost for incomes 80% of area medium income and below and similar tiers for multifamily buildings.
- Includes a $14,000 cap per household, with an $8,000 cap for heat pump costs, $1,750 for a heat pump water heater, and $4,000 for panel/service upgrade.
- Other eligible rebates include electric stoves, clothes dryers, and insulation/air sealing measures.
- **No State match is required.**

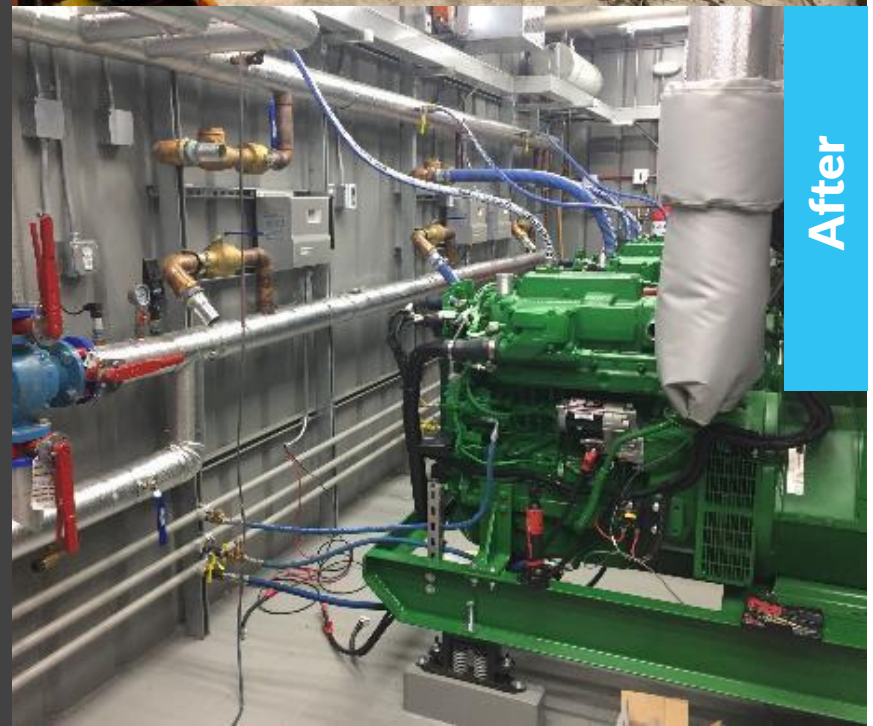
Federal Receipt Authority – $12.7 Million

Black Rapids Training Site (BRTS) Defense Community Infrastructure Pilot Program

AEA partnered with Golden Valley Electric Cooperative (GVEA) to apply for this grant from the Office of Local Defense Community Cooperation under the Defense Community Infrastructure Pilot Program. This request is for federal receipt authority. **No State match is required.**

GVEA will use the funds to extend an transmission line 34 miles along the Richardson Highway to BTRS. Currently, BTRS is powered by three diesel generators that are nearing the end of their useful lives. This extension will improve long-term sustainability and reliability for BRTS by tying them into GVEA's power grid.

Rural Power System Upgrades



Capital Request: State Match – $7.5 Million
Federal Receipt Authority – $25 Million

- AEA's Rural Power System Upgrades (RPSU) program builds and retrofits in communities with less than 2,000 people
- Typical efficiency improvement in diesel generation is between 10 and 20%
- ~197 eligible communities
- Active projects — 10 full and 13 Maintenance and Improvement/Diesel Emissions Reduction Act
- Goal — improve power system efficiency, safety, and reliability
- Deferred maintenance is $300 million

Bulk Fuel Upgrades

Capital Request: State Match – $5.5 Million
Federal Receipt Authority – $7.5 Million

- AEA's Bulk Fuel Upgrades (BFU) program repairs or upgrades fuel storage in communities with less than 2,000 people
- Upgrades reduce the unit cost of energy by replacing leaking tanks and reduces the risk of future tank equipment failure
- ~400 rural bulk fuel facilities
- Active projects — 13 full and 22 Maintenance and Improvement; no funding for two years
- Goal — code compliant fuel storage facilities and prevention of spills and contamination
- Deferred maintenance is $800 million

Capital Request: General Fund - $7.5 Million

Renewable Energy Fund (REF)

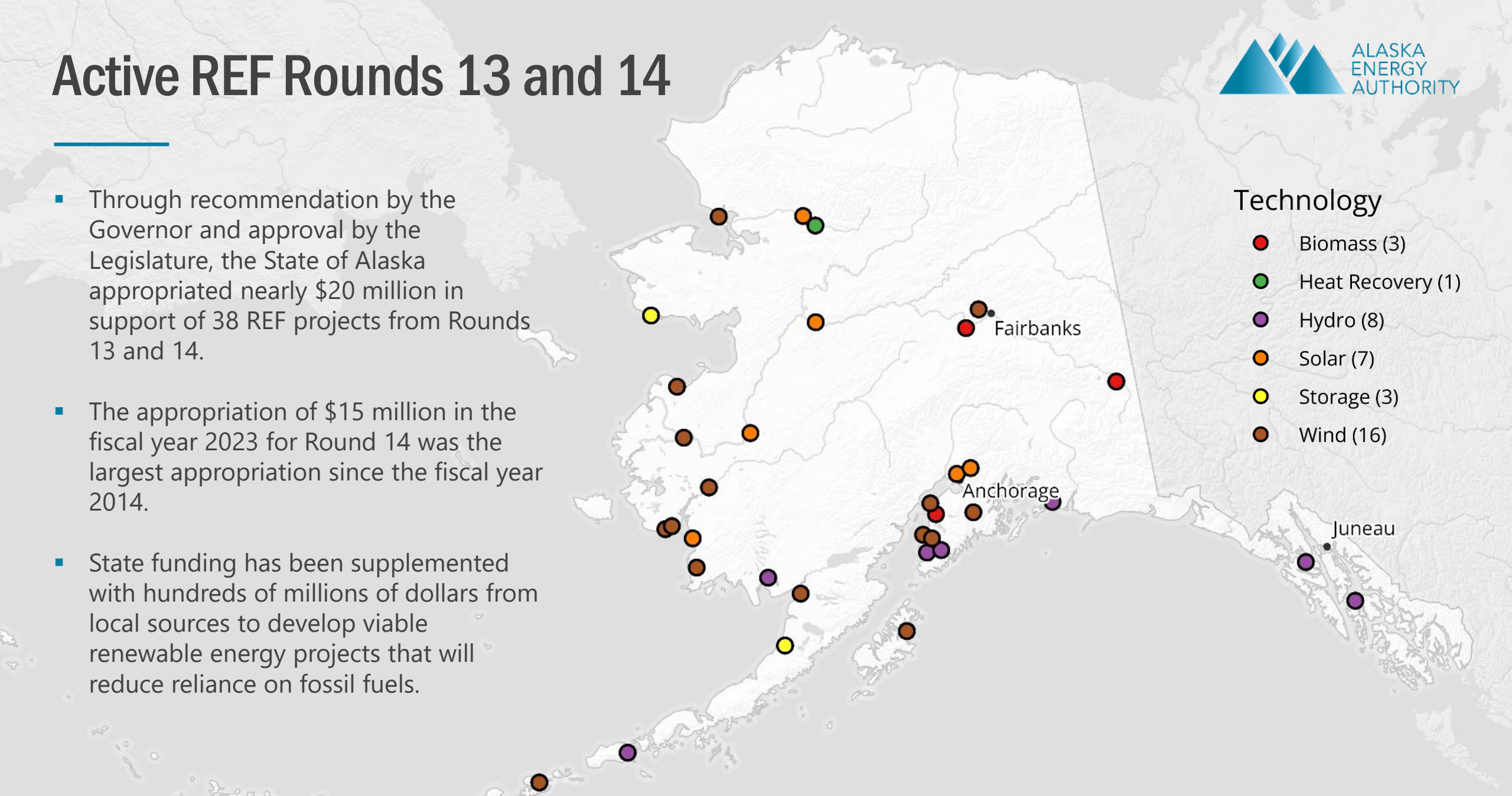
Established in 2008, the REF is a unique and robust competitive grant program, which provides critical financial assistance for statewide renewable energy projects, across a variety of project phases.

The REF funds projects across all development phases, serving as a catalyst for the continued pursuit of integrating proven and nascent technologies within Alaska's energy portfolio.

- Nearly $300 million invested in the REF by the State.
- Over 100 operational projects and 44 in development.
- The REF Advisory Committee unanimously approved 27 Round 15 projects for a total of $25.25 million.

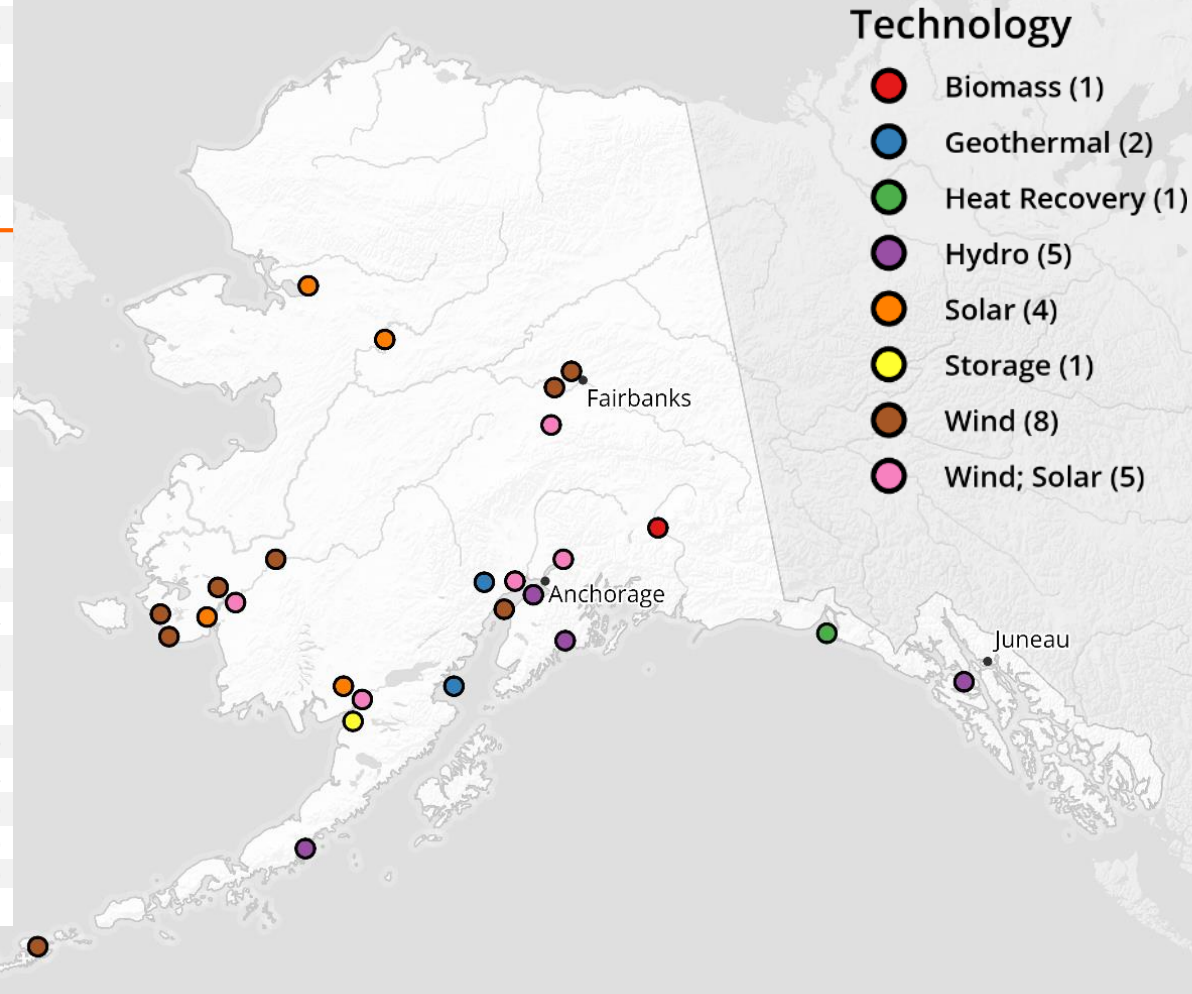
Active REF Rounds 13 and 14

- Through recommendation by the Governor and approval by the Legislature, the State of Alaska appropriated nearly $20 million in support of 38 REF projects from Rounds 13 and 14.
- The appropriation of $15 million in the fiscal year 2023 for Round 14 was the largest appropriation since the fiscal year 2014.
- State funding has been supplemented with hundreds of millions of dollars from local sources to develop viable renewable energy projects that will reduce reliance on fossil fuels.

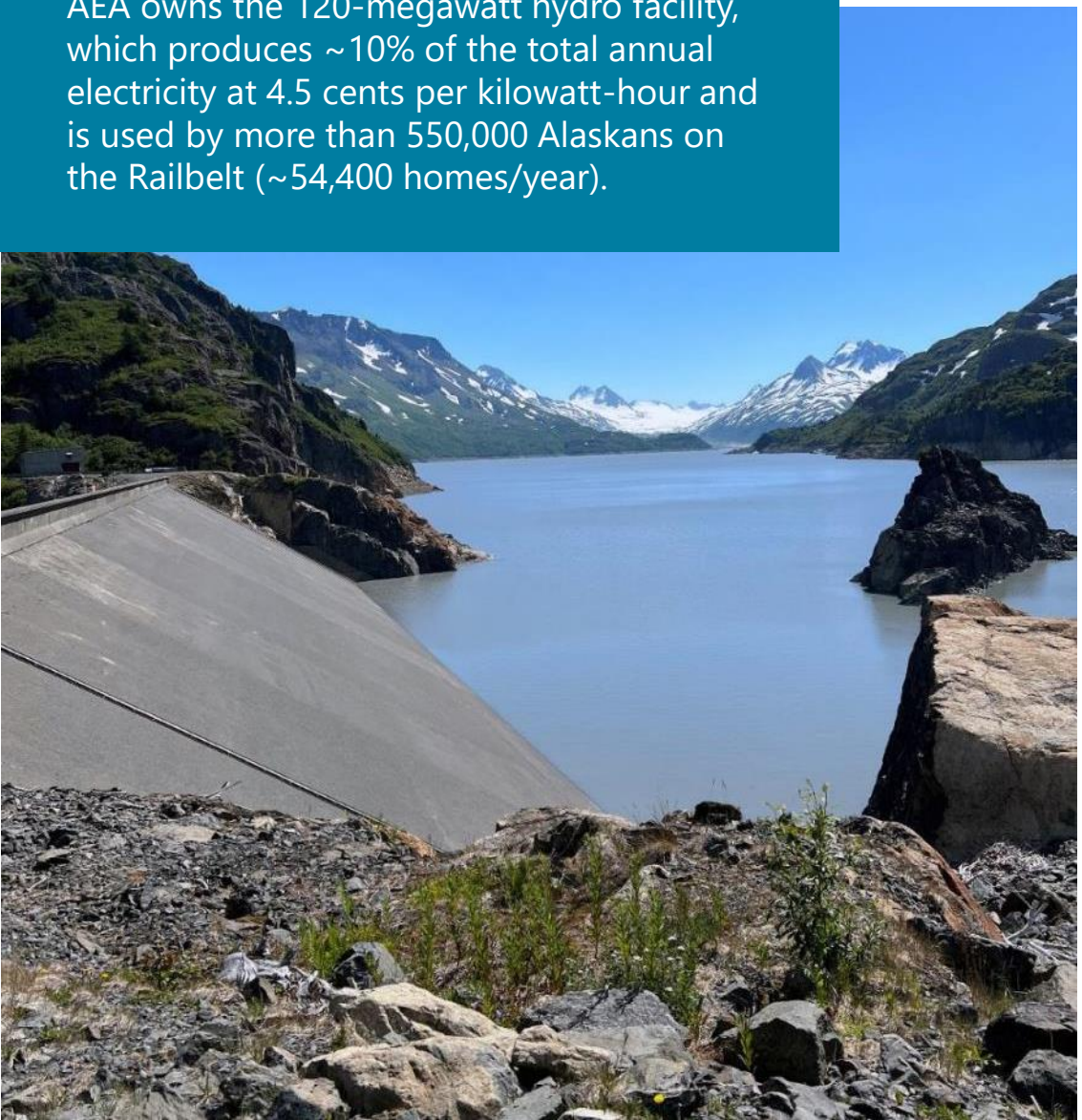


REF Round 15 Recommendations

Community	Project	Amount
Adak	Hydropower - Feasibility and Conceptual Design	497,650
Railbelt / GVEA Serving Area	LIDAR Improvement to Interior Wind Energy Assessments	250,000
Railbelt / HEA Serving Area	Mount Spurr Geothermal Feasibility and Conceptual Design	45,500
Railbelt / HEA Serving Area	Augustine Island Geothermal Feasibility and Conceptual Design	68,000
Naknek, South Naknek, King Salmon	Electric Battery Energy Storage System Design	2,172,984
Native Village of Kluti-Kaah (Copper Center)	Woodchip Heating Project	500,000
Kipnuk	Battery Installation, Integration and Commissioning	434,000
Hoonah	Water Supply Creek Hydro Construction	3,538,526
Beluga	Beluga Area Renewable Resource Assessment	298,000
Chefornak	Battery Installation, Integration, and Commissioning	437,000
Healy	Healy Area Renewable Resource Assessment	298,000
Railbelt / HEA Serving Area	Cook Inlet Oil Platform Wind Project	214,400
Huslia	Community-Scale Solar PV and Battery Project	2,082,000
Railbelt / MEA Serving Area	Railbelt Wind Feasbility Study and Conceptual Design	1,833,333
Selawik	Solar PV Array	1,134,500
Yakutat	Community Health Center Heat Recovery Project	1,000,000
Kalskag	Wind Feasibility and Conceptual Design	267,300
Railbelt	Utility-Scale Railbelt Wind – Alaska Renewables	2,000,000
New Stuyahok, Ekwok	Solar Energy and Battery Storage Project	2,520,000
Chignik	Hydroelectric Power System Design	802,394
Atmautluak	Battery and Thermal Stove Installation, Integration and Commissioning	577,000
Railbelt / CEA Serving Area	Godwin Creek Hydroelectric Project	1,729,000
Railbelt	Turnagain Arm Tidal Electricity Generation Project (TATEG)	400,000
Tuntutuliak	Community Services Association Solar Energy Project	1,197,768
Unalaska	Wind Farm Design	420,000
Napaskiak	Reconnaissance and Wind Assessment Project	337,500
Levelock	Renewables Feasibility and Conceptual Design	197,000
	Total:	25,251,855



BRADLEY LAKE HYDROELECTRIC PROJECT
AEA owns the 120-megawatt hydro facility, which produces ~10% of the total annual electricity at 4.5 cents per kilowatt-hour and is used by more than 550,000 Alaskans on the Railbelt (~54,400 homes/year).



Capital Request: General Fund - $5 Million

Hydroelectric Development

AEA is studying the Dixon and Godwin Creeks to optimize the hydro energy potential on the Railbelt. Funds will be used for engineering studies (feasibility, hydrological, geological) and environmental studies (fisheries, water quality, geomorphology).

DIXON PROJECT*

- Located 5 miles from Bradley Lake and would utilize existing powerhouse at Bradley Lake
- Estimated annual energy 100,000-200,000 MWh (~14,000-28,000 homes)

GODWIN PROJECT*

- Located adjacent to Seward and near Railbelt transmission lines lowering development costs
- Assumed annual energy next 50 years 117,000 MWh (~16,000 homes)

Capital Request: General Fund - $5 Million

Renewable Energy & Efficiency Programs

AEA's renewable energy and efficiency programs provide critical technical support for communities interested in developing renewable energy programs in with the aim of growing Alaska's clean economy.

Funds would be **used for**:

- Staffing of Renewable Energy and Efficiency Programs team.
- Technical assistance and support for utilities and communities interested in developing cost-effective renewable energy and energy efficiency projects.

Additionally, the funds **help AEA**:

- Plan and prepare for incoming federal funds.
- Leverage federal funds from federal partners such as, but not limited to the Denali Commission, USDOE, and USDA — and is **imperative for continued renewable development** in Alaska.

- BIOMASS
- ENERGY EFFICIENCY
- ELECTRIC VEHICLES
- ENERGY STORAGE
- GEOTHERMAL
- HEAT RECOVERY
- HYDROELECTRIC
- NUCLEAR
- SOLAR
- WIND

Capital Request: General Fund - $3 Million

Delta Phase 3 Power

This appropriation provides a $3 million grant to the Golden Valley Electric Association for the purpose of expanding three-phase power throughout the Delta region to boost production, incentivize expansion, and lower input costs for producers and customers.

The purpose of this project is to further food security objectives in Alaska. Priorities in the near term will focus on enhancing existing production and incentivizing expansion. Many farms in the Delta region either lack three-phase power or are off the power grid entirely.

Producer Savings
This extension and upgrade with lower input costs for producers.

Customer Savings
Lower prices for customers.

Expanded Equipment
Potentially facilitate expanded use of irrigation and drying equipment.

Capital Request: General Fund - $200,000

Electrical Emergencies

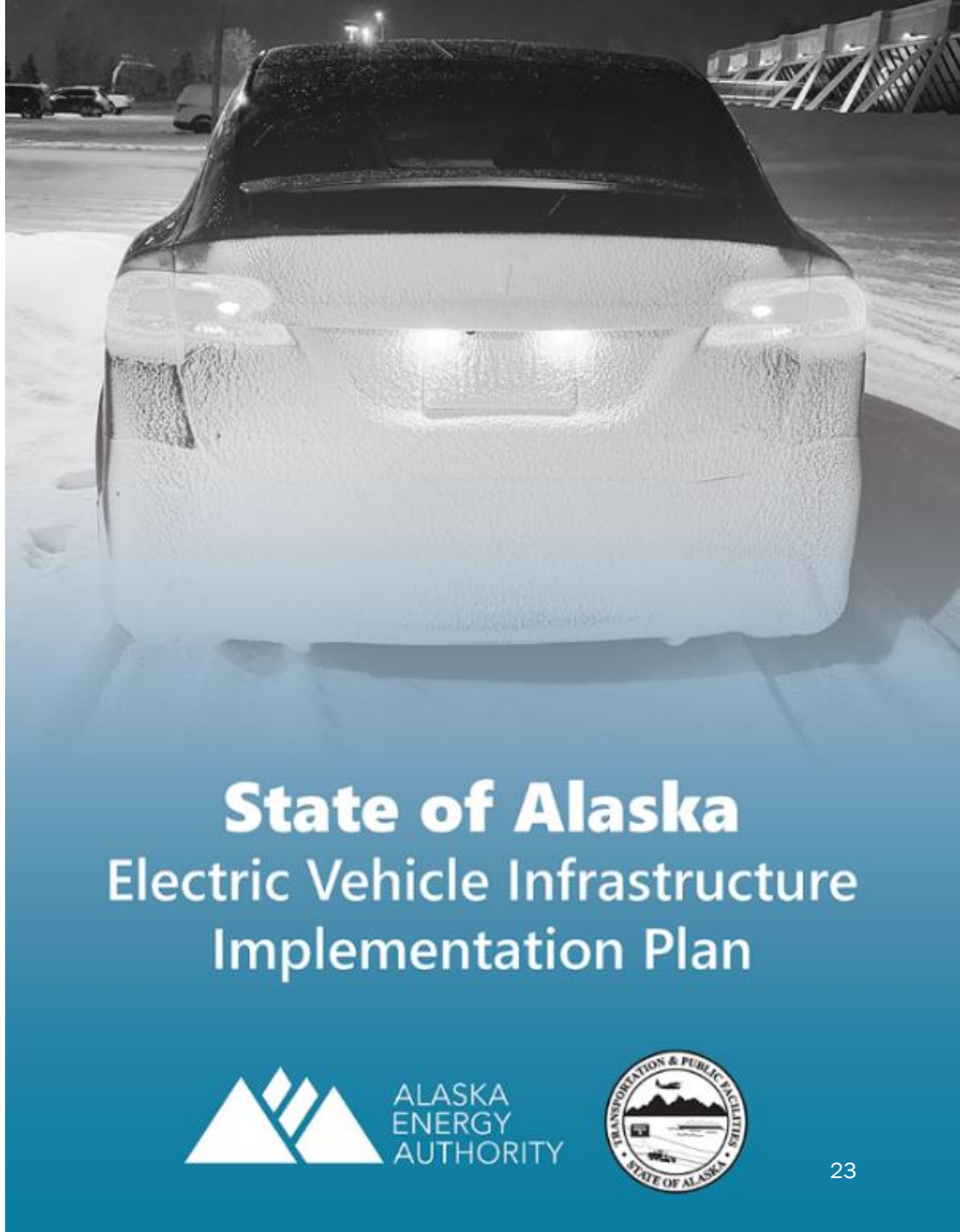
- AEA provides support when an **electric utility has lost or will lose the ability to generate or transmit power** to its customers and the condition is a threat to life, health, and/or property. Funding provides the current level of technical support through the Electrical Emergencies Program.
- During the **Fiscal Year 2022 there were three (3) electrical emergencies**. Power was restored within 24 hours in each case.
- The **average cost of an electrical emergency** assistance is approximately $58,000 each.

ACTIVE PROJECTS AND PROGRAMS

State of Alaska Electric Vehicle (EV) Infrastructure Implementation Plan

AEA and the Alaska Department of Transportation & Public Facilities (DOT&PF), submitted their **State of Alaska EV Infrastructure Implementation Plan (The Plan)** to the United States Joint Office of Energy and Transportation, as required by the Infrastructure Investment and Jobs Act's (IIJA) NEVI Formula Program.

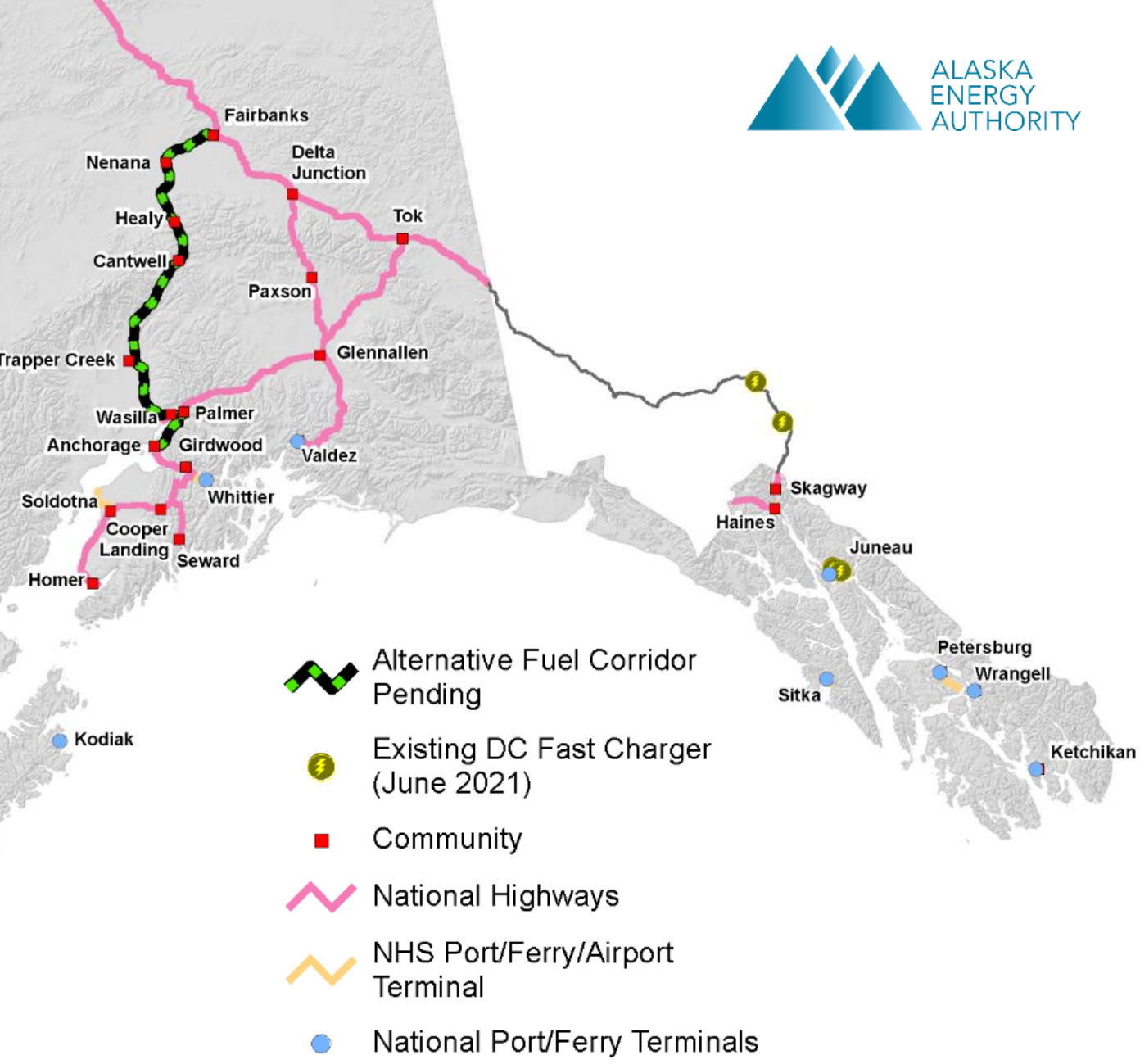
- On September 27, 2022, **The Plan was approved**. The announcement unlocks **$19 million** to expand EV charging infrastructure in Alaska.
- Over the **next five years, AEA anticipates receiving $52 million**. Funds will be received by DOT&PF and administered by AEA.
- On March 1, 2023, AEA issued a **Request for Applications** for to site hosts compete for a share of Alaska's NEVI program funding. Applications are due by 4 p.m. on May 15, 2023.

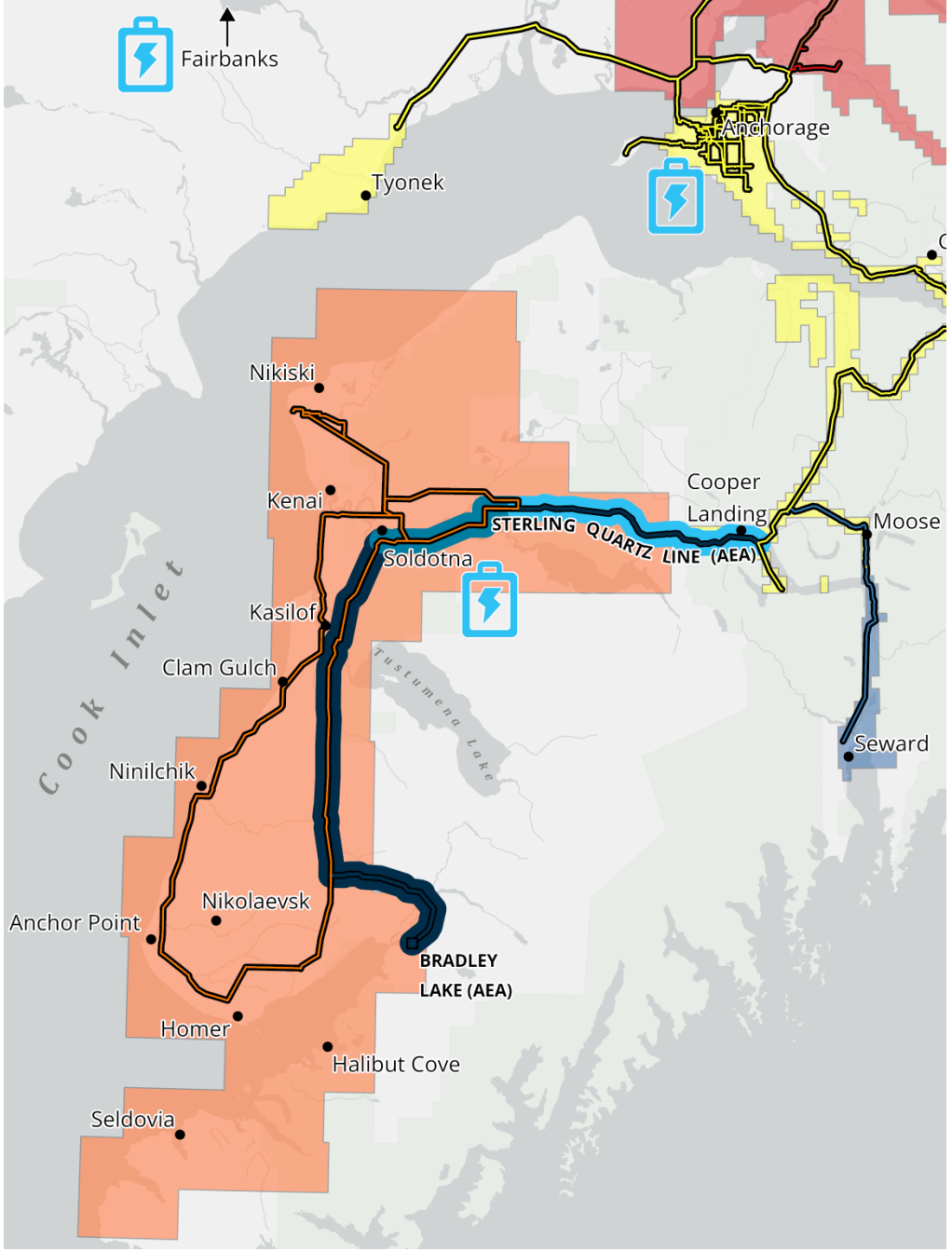


NEVI Requirements

Funding must be used to build out Alternative Fuel Corridors (AFCs) first

- Alaska currently has one AFC (pending)
- After AFC buildout, funding can be used elsewhere
- Charging infrastructure must be **DC fast-charging**
  - 4 Combined Charging System Connectors
  - >150 kW each
- Chargers must be located no more than **1 driving mile from AFC**
- Charging stations must be located no more than **50 miles** apart along designated AFC
- Match Requirements
  - Federal share: 80%
  - Private entity or other: 20%
- Justice40 Requirements





ALASKA ENERGY AUTHORITY

Transmission Upgrades and Battery Storage

AEA and the Railbelt utilities closed on **$166 million in bond financing** to improve the efficiency and deliverable capacity of power from the Bradley Lake Hydroelectric Project. **The bonding comes at no additional cost to ratepayers or burden on the State treasury**.

- Upgrade transmission line between **Bradley Lake and Soldotna** Substation
- Upgrade transmission line between **Soldotna Substation and Sterling** Substation
- Upgrade transmission line between **Sterling Substation and Quartz Creek** Substation
- **Battery Energy Storage Systems** for Grid Stabilization

These projects will reduce constraints on the Railbelt by improving the Kenai Peninsula's transmission capacity to export power from Bradley Lake — and allow for the integration of additional renewable energy generation.

IIJA Competitive: Grid Resilience and Innovation Partnerships (GRIP)

To enhance the power system's resilience to extreme weather and climate change, the Grid Deployment Office is administering a $10.5 billion GRIP program under the Bipartisan Infrastructure Law.

1) Railbelt Backbone Reconstruction Project
$100 Million*
(Requested of DOE; submitted April 5, 2023)

2) Battery Energy Storage/HVDC Coordinated Control
$16 Million*
(Requested of DOE; submitted March 16, 2023)

3) Railbelt Innovation Resiliency Project)
$299 Million*
(Due May 19, 2023)

3) Rural Alaska Microgrid Transformation
$250 Million*
(Due May 19, 2023)

*All four GRIP programs are in application phase.

AEA provides **energy solutions** to meet the unique needs of Alaska's rural and urban communities.

ALASKA ENERGY AUTHORITY

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APPENDIX

Round 15 (FY2024) Renewable Energy Fund (REF) Status Report

Alaska Energy Authority —
Renewable Energy Fund – Round XV

Alaska State Legislature
April 2023

Table of Contents

REF Overview	Page 3
REF Statutory Guidance	Page 4
Round XV Request for Applications Schedule	Page 5
REF Evaluation Process	Page 6
REF Funding Limits	Page 10
Proposed REF Capitalization for Round 15 (FY2024)	Page 11
REF Received Applications Summary	Page 12
Non-Recommended Applications Summary	Page 14
Renewable Energy Fund Advisory Committee (REFAC) Solicitation of Advice on Recommended Projects	Page 16
REFAC Roles	Page 17
REFAC Current Members	Page 18
Recommended Applications Summary	Page 19
Applications Forwarded for Legislature's Decision on Funding	Page 21
Partial Funding Recommendations	Page 23

REF Overview

The Alaska Renewable Energy Fund (REF) is a competitive grant program that was established by the Alaska State Legislature in 2008 and is now in its 15th annual funding cycle (i.e. Round). The program was established to help fund cost-effective renewable energy projects throughout the state. These projects are intended to help communities reduce their dependence on fossil fuels in order to stabilize their costs of both heat and electricity. The program also creates jobs, promotes renewable energy technology transfer within Alaskan communities, utilizes local energy resources, keeps money in local economies, and fosters economic development.

REF Statutory Guidance (AS 42.45.045)

Eligible projects must:

Be a new project not in operation in 2008, and

- be a hydroelectric facility;
- direct use of renewable energy resources;
- a facility that generates electricity from fuel cells that use hydrogen from renewable energy sources or natural gas (subject to additional conditions); or
- be a facility that generates electricity using renewable energy.
- natural gas applications must also benefit a community that:
    - Has a population of 10,000 or less, and
    - does not have economically viable renewable energy resources it can develop.

Evaluation process

Develop a methodology for determining the order of projects that may receive assistance,

- most weight being given to projects that serve any area in which the average cost of energy to each resident of the area exceeds the average cost to each resident of other areas of the state,
- significant weight given to a statewide balance of grant funds and to the amount of matching funds an applicant is able to make available
- The REF evaluation process is comprised of four stages.

Request for Applications Schedule – REF Round XV

DATE / ANTICIPATED DATE	ACTION
October 4, 2022	Request for Applications posted
December 5, 2022	Application submission deadline
December 2022 - March 2023	Evaluation of Applications
April 5, 2023	REFAC Meeting
April 7, 2023	Submission of recommendations to Legislature
July 1, 2023	If capital funds are appropriated by the Alaska Legislature – Grants could begin

REF Evaluation Process: Stage 1 Eligibility and Completeness

The REF evaluation process is comprised of four stages. Stage 1 is an evaluation of the applicant, project eligibility and, completeness of the application, as per 3 AAC 107.635. This portion of the evaluation process is conducted by AEA staff.

- Applicant eligibility is defined as per AS 42.45.045 (l).
  - "*electric utility holding a certificate of public convenience and necessity under AS 42.05, independent power producer, local government, or other governmental utility, including a tribal council and housing authority*;"
- Project eligibility is defined as per AS 42.45.045 (f)-(h) and is provided on the preceding page.
- Project completeness:
  - An application is complete in that the information provided is sufficiently responsive to the RFA to allow AEA to consider the application in the next stage (Stage 2) of the evaluation.
  - The application must provide a detailed description of the phase(s) of project proposed.

STAGE 1 CRITERIA	PASS/FAIL
Applicant eligibility, including formal authorization and ownership, site control, and operation	PASS/FAIL
Project Eligibility	PASS/FAIL
Complete application, including Phase description(s)	PASS/FAIL

Applications that failed to meet the requirements of Stage 1 were rejected by the authority. Each applicant whose application was rejected was notified of the authority's decision.

REF Evaluation Process: Stage 2 Technical and Economic Feasibility

Stage 2 is an evaluation concerning technical and economic feasibility. This portion of the evaluation process is conducted by AEA staff, Alaska Department of Natural Resources, and contracted third-party economists.

The following items are evaluated as part of the Stage 2 evaluation, as required per 3 AAC 107.645:

- Project management, development, and operations;
- Qualifications and experience of project management team, including on-going maintenance and operation;
- Technical feasibility – including but not limited to sustainable current and future availability of renewable resource, site availability and suitability, technical and environmental risks, and reasonableness of proposed energy system; and,
- Economic feasibility and benefits – including but not limited to project benefit-cost ratio, project financing plan, and other public benefits owing to the project.

All Stage 2 criteria are weighted as follows as part of the evaluation process. Applications that score below 40 points in this stage are automatically rejected by the authority, however, those projects scoring above 40 may also be rejected as under 3 AAC 107.645(b) has the authority to reject applications that it determines to be not technically and economically feasible, or do not provide sufficient public benefit.

CRITERIA	CRITERIA DESCRIPTION	WEIGHT
1	Project management, development, and operation	25%
2	Qualifications and experience	20%
3	Technical feasibility	20%
4.a	Economic benefit-cost ratio	25%
4.b	Financing plan	5%
4.c	Other public benefit	5%

REF Evaluation Process: Stage 3 Project Ranking

Stage 3 is an evaluation concerning the ranking of eligible projects. This portion of the evaluation process is conducted by AEA staff in conjunction with solicitation from the Renewable Energy Fund Advisory Committee (REFAC) .

The following items are evaluated as part of the stage three evaluation, as required per 3 AAC 107.655-660:

- Cost of energy
- Applicant matching funds
- Project feasibility (levelized score from stage 2)
- Project readiness
- Public benefits (evaluated through stage 2 benefits)
- Sustainability
- Local Support
- Regional Balance
- Compliance

All Stage 3 criteria are weighted as follows as part of the evaluation process. The Stage 3 scoring is used to determine the ranking score.

CRITERIA	CRITERIA DESCRIPTION	WEIGHT
1	Cost of Energy	30%
2	Matching Funds	15%
3	Project Feasibility (levelized score from Stage 2)	25%
4	Project Readiness	5%
5	Public Benefits	10%
6	Sustainability	10%
7	Local Support	5%
8	Regional Balance	Pass/Fail
9	Compliance	Pass/Fail

REF Evaluation Process: Stage 4 Regional Spreading

Stage 4 is a final ranking of eligible projects, as required per 3 AAC 107.660, which gives "significant weight to providing a statewide balance of grant money, taking into consideration the amount of money available, number and types of projects within each region, regional rank, and statewide rank." This portion of the evaluation process is conducted by AEA staff in conjunction with solicitation from the Renewable Energy Fund Advisory Committee (REFAC) .

The following items are evaluated as part of the stage four evaluation, as required per 3 AAC 107.660:

- Cost of energy burden = [HH cost of electric + HH heat cost] ÷ [HH income] – this is used to determine target funding allocation by region – for regional spreading

Stage 4 cost of energy burden given below. The below table indicates target funding, as has been allocated, by region, this will be applied to Stage 3 statewide ranking to determine the regionally-spread rank.

Cumulative through Round 14									
	Total Round 1-14 Funding		Cost of Power Allocation				Population		Even Split
Energy Region	Grant Funding	% Total	Cost burden (HH cost/HH income)	Allocation cost of energy basis	Additional funding needed to reach 50%	% of target allocation	% Total	Allocation per capita basis	Allocation per region basis
Aleutians	$17,886,348	7%	13.51%	$25,642,278	($5,065,209)	70%	1%	$3,032,191	$24,866,121
Bering Straits	$23,486,724	9%	15.53%	$29,481,290	($8,746,079)	80%	1%	$3,702,437	$24,866,121
Bristol Bay	$13,693,630	5%	15.59%	$29,578,665	$1,095,702	46%	1%	$2,638,597	$24,866,121
Copper River/Chugach	$27,663,273	10%	11.60%	$22,008,963	($16,658,792)	126%	1%	$3,006,078	$24,866,121
Kodiak	$16,659,519	6%	7.67%	$14,547,653	($9,385,692)	115%	2%	$4,809,421	$24,866,121
Lower Yukon-Kuskokwim	$38,749,816	14%	20.28%	$38,479,876	($19,509,878)	101%	4%	$10,057,474	$24,866,121
North Slope	$2,069,151	1%	2.13%	$4,037,479	($50,412)	51%	1%	$3,678,973	$24,866,121
Northwest Arctic	$28,031,633	10%	16.64%	$31,587,864	($12,237,701)	89%	1%	$2,851,668	$24,866,121
Railbelt	$26,265,165	10%	6.06%	$11,502,351	($20,513,990)	228%	77%	$211,147,151	$24,866,121
Southeast	$61,134,351	22%	9.03%	$17,139,635	($52,564,533)	357%	10%	$26,780,318	$24,866,121
Yukon-Koyukuk/Upper Tanana	$16,851,832	6%	26.09%	$49,521,277	$7,908,806	34%	1%	$1,823,024	$24,866,121
Statewide	$1,035,888	0%	0.00%						
TOTAL	**$273,527,331**	**100%**		**$273,527,331**			**100%**	**$273,527,331**	**$273,527,331**

REF Round XV Funding Limits

REF Round XV Grant Funding Limits

Phase	Grant Limits by Location	
	Low Energy Cost Areas*	**High Energy Cost Areas****
Total project grant limit	$2 Million	$4 Million
Phase I, Reconnaissance Phase II, Feasibility and Conceptual Design	The per project total of Phase I and II is limited to 20% of anticipated construction cost (Phase IV), not to exceed $2 Million.	
Phase III, Final Design and Permitting	20% of anticipated construction cost (Phase IV), and counting against the total construction grant limit below.	
Phase IV, Construction and Commissioning	**$2 Million** per project, including final design and permitting (Phase III) costs, above.	**$4 Million** per project, including final design and permitting (Phase III) costs, above.
Exceptions		
Biofuel projects	Biofuel projects where the applicant does not intend to generate electricity or heat for sale to the public are limited to reconnaissance and feasibility phases only at the limits expressed above. Biofuel is a solid, liquid or gaseous fuel produced from biomass, excluding fossil fuels.	
Geothermal projects	The per-project total of Phase I and II for geothermal projects is limited to 20% of anticipated construction costs (Phase IV), not to exceed $2 million /$4 million (low/high cost areas). Any amount above the usual $2 million cap spent on these two phases combined shall reduce the total Phase III and IV grant limit by the same amount, thereby keeping the same total grant dollar cap as all other projects. This exception recognizes the typically increased cost of the feasibility stage due to test well drilling.	

REF Round XV funding limits are limited by the requested phase(s) in the application and the technology type applied.

Low vs High Cost Energy Areas:

- *Low Energy Cost Areas* are defined as communities with a residential retail electric rate of below $0.20 per kWh, before Power Cost Equalization (PCE) reimbursement is applied. For heat projects, low energy cost areas are communities with natural gas available as a heating fuel to at least 50% of residences, or availability expected by the time the proposed project is constructed.
- *High Energy Cost Areas* are defined as communities with a residential retail electric rate of $0.20 per kWh or higher, before PCE funding is applied. For heat projects, high energy cost areas are communities that do not have natural gas available as a heating fuel.

Proposed REF Capitalization for FY2024 / Rd 15

The State of Alaska FY2024 proposed capital budget allocates $7.5 million for REF Round 15 grant funding of recommended projects.

The current list of 27 recommended applications yields a total grant request of $25.25 million. With the proposed REF budget of $7.5 million, there would be insufficient funding to cover the current Round 15 recommendations. Additional funding of $17.75 million would need to be allocated to fund all of the current Round 15 recommendations or some of the Round 15 recommendations will not be funded.

The table to the right indicates historical REF program funding from the inception of the REF program to the FY2023 appropriation.

$15M was approved in the FY2023 capital budget for REF Round 14, the largest REF capitalization since FY2014.

Legislative Appropriation		Fiscal Year
$	100,001,000	FY2008
$	25,000,000	FY2009
$	25,000,000	FY2010
$	36,620,231	FY2011
$	25,870,659	FY2012
$	25,000,000	FY2013
$	22,843,900	FY2014
$	11,512,659	FY2015
$	-	FY2016
$	-	FY2017
$	(3,156,000)	FY2018 - RPSU Reappropriation
$	11,000,000	FY2019
$	-	FY2020
$	-	FY2021
$	4,750,973	FY2022
$	15,000,000	FY2023
$	**299,443,422**	**TOTAL (excl. operating appropriation)**

Round XV – Received Applications Summary

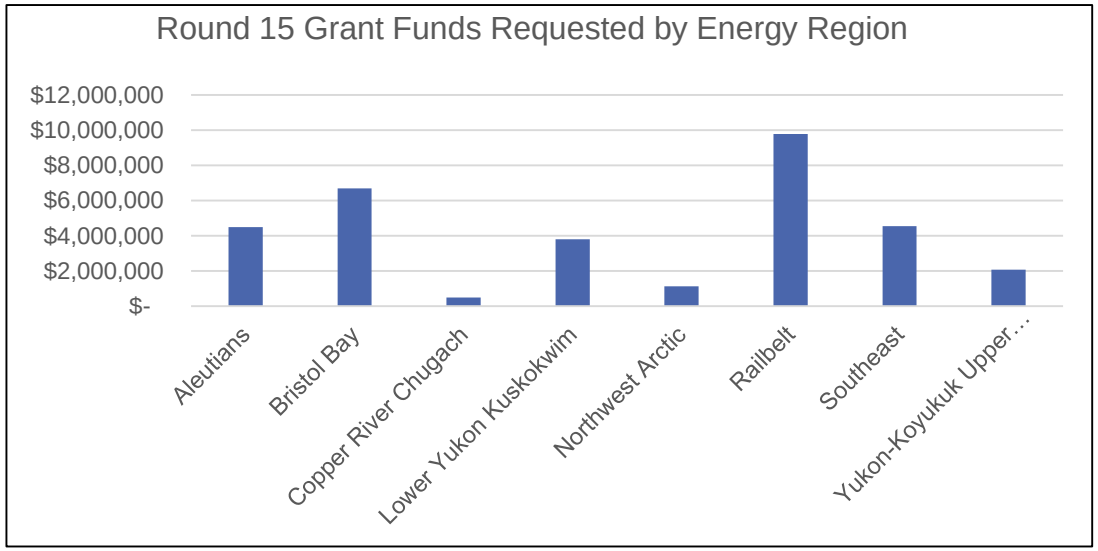
For REF Round 15, AEA received 31 applications, with a corresponding total grant request of $33.0 million.

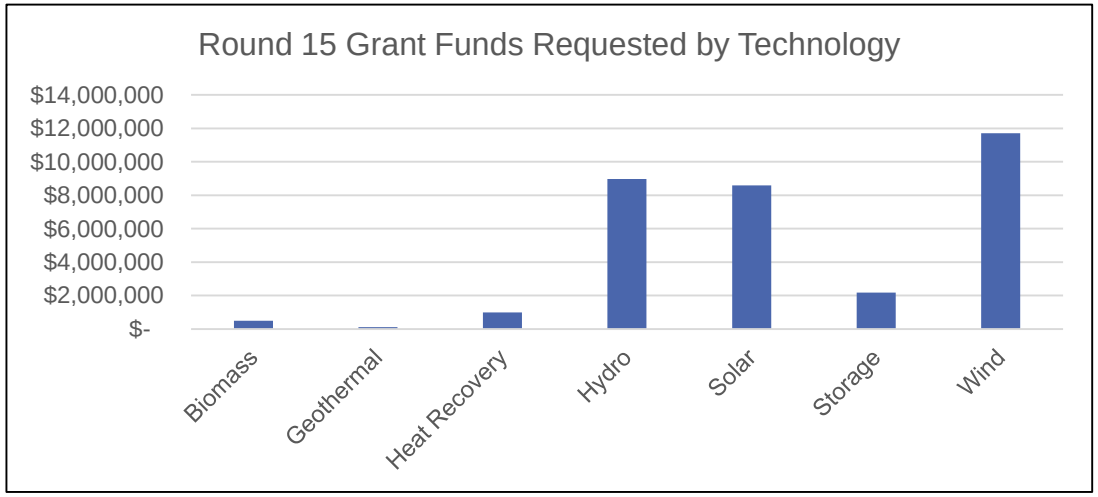
Round 15 Summary of Received Applications - by Energy Region

Energy Region	No. of Applications	REF Funding Requested ($)
Aleutians	2	$ 4,497,650
Bristol Bay	5	$ 6,692,378
Copper River Chugach	1	$ 500,000
Lower Yukon Kuskokwim	7	$ 3,806,068
Northwest Arctic	1	$ 1,134,500
Railbelt	12	$ 9,788,733
Southeast	2	$ 4,538,526
Yukon-Koyukuk Upper Tanana	1	$ 2,082,000
Total	31	$ 33,039,855

Round 15 Summary of Received Applications - by Technology

Technology	No. of Applications	REF Funding Requested ($)
Biomass	1	$ 500,000
Geothermal	2	$ 113,500
Heat Recovery	1	$ 1,000,000
Hydro	6	$ 8,967,570
Solar	6	$ 8,586,768
Storage	1	$ 2,172,984
Wind	14	$ 11,699,033
Total	31	$ 33,039,855





Round XV – Received Applications Summary

The table to the right indicates the number of applications received by requested phase, along with the corresponding grant request totals. Per the current RFA, there are four phases, listed below in chronological order, for which an applicant may request funding:

(1) Reconnaissance

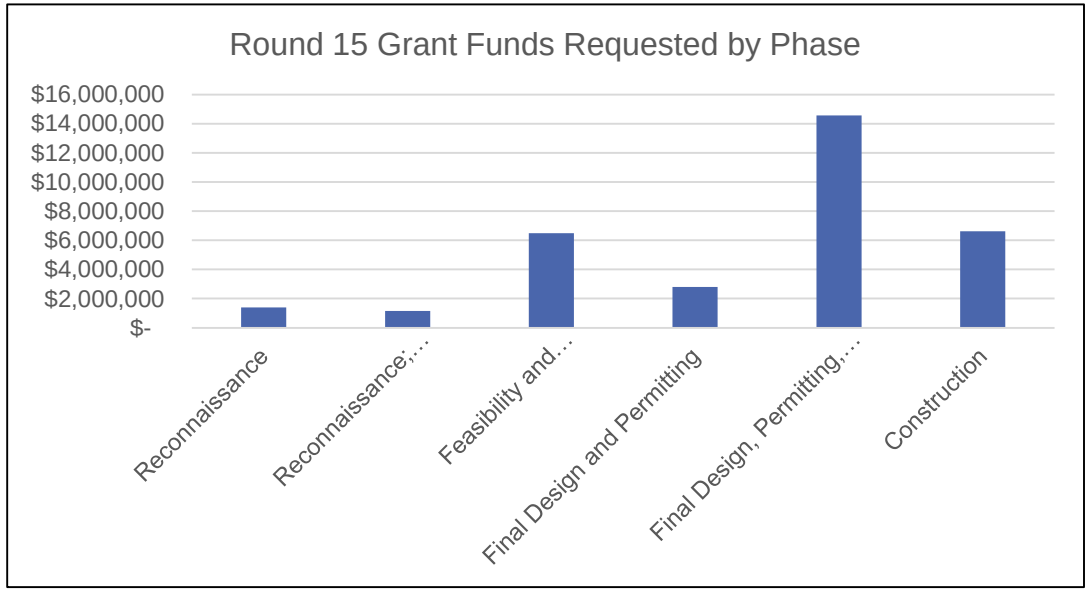
(2) Feasibility and Conceptual Design

(3) Final Design and Permitting

(4) Construction

Several applications received in Round 15 requested funding for more than one phase.

Requested Phases	Application Count	REF Requested ($)
Reconnaissance	1	$ 1,400,000
Reconnaissance; Feasibility & Conceptual Design	4	$ 1,159,900
Feasibility and Conceptual Design	11	$ 6,483,783
Final Design and Permitting	2	$ 2,802,394
Final Design & Permitting; Construction	7	$ 14,572,752
Construction	6	$ 6,621,026
Total	**31**	**$ 33,039,855**



Stage 1 Non-Recommended Applications Summary

In AEA's Stage 1 evaluation, as per 3 AAC 107.635, it was determined by AEA evaluation staff that 4 applications did not meet the eligibility and/or completeness requirements and were rejected. Two applicants appealed their rejections as per 3 AAC 107.650 – "Requests for reconsideration". Upon AEA's due consideration and review of the appeals, both rejections were upheld, and final written notices were issued to those applicants.

No additional applications were rejected as per 3 AAC 107.645, Stage 2 evaluations.

With an initial receipt of 31 applications and 4 being rejected during Stage 1, there are 27 remaining applications which are recommended. With respect to grant funding requests, a total of $3.1 million was rejected in Stage 1.

AEA received 31 initial applications. Owing to AEA's Stage 1 review, 4 applications were rejected, reducing the total grant funds requested by $3.1 million. The remaining 27 applications, totaling a grant request of $29.9 million, were then evaluated according to Stage 2, Stage 3, and Stage 4 criteria. With the current proposed REF fund allocation of $7.5 million for FY2023, there are insufficient REF funds to cover one-hundred percent of the Round 15 requests. Partial funding recommendations, which are discussed further along in the presentation, were made in full consideration of project phases applied for, application scoring, project scope eligibility, and household cost of energy.

Stage 1 Non-Recommended Applications

Below are the 4 identified applications that were rejected during the Stage 1 evaluation:

Application Number	Applicant	Application Name	Technology	Phase	Community	Funds Requested	Election District	Rejection Reason
15002	Nushagak Electric & Telephone Cooperative	Nuyakuk Hydroelectric Project	Hydro	Feasibility and Conceptual Design	Dillingham	$1,000,000	37-S	Project received maximum funding for requested phase in previous REF Rounds
15015	Beric Alaska Energy	Beric Alaska Energy Solar One	Solar	Reconnaissance; Feasibility and Conceptual Design	Railbelt	$ 52,500	30-O	Application was not signed
15019	City of Akiak	Akiak Reconnaissance and Wind Assessment	Wind; Solar	Reconnaissance; Feasibility and Conceptual Design	Akiak	$ 446,500	38-S	Application was not signed
15030	City of Fairbanks	Public Works Solar Panel Array	Solar	Final Design and Permitting; Construction	Fairbanks	$1,600,000	31-P	Incomplete application

Solicitation of Advice from REFAC

As statutorily required per AS 42.45.045 and set forth in 3 AAC 107.660, the authority is to solicit advice from the REFAC concerning making a final list / ranking of eligible projects, which gives "*significant weight to providing a statewide balance of grant money, taking into consideration the amount of money available, number and types of projects within each region, regional rank, and statewide rank*." This finalized list will be provided to the legislature for recommendation in accordance with AS 42.45.045(d)(3). Any grant awards are subject to legislative approval and appropriation.

The right-hand table is provided to assess the "regional spreading" of REF funding. As indicated, both the Railbelt and the Southeast energy regions currently exceed 200% of their target allocation based on their cost of energy burden. Bristol Bay and Yukon-Koyukuk/Upper Tanana energy regions are the remaining regions where the allocation, based on the cost of energy burden, has not met 50% of their potential allocation, categorizing these regions as "under-served".

The authority solicits advice from the REFAC relating to any recommendations in changes to funding level, ranking, and/or total amount of funding and number of projects.

Cumulative through Round 14									
	Total Round 1-14 Funding		Cost of Power Allocation				Population		Even Split
Energy Region	Grant Funding	% Total	Cost burden (HH cost/HH income)	Allocation cost of energy basis	Additional funding needed to reach 50%	% of target allocation	% Total	Allocation per capita basis	Allocation per region basis
Aleutians	$17,886,348	7%	13.51%	$25,642,278	($5,065,209)	70%	1%	$3,032,191	$24,866,121
Bering Straits	$23,486,724	9%	15.53%	$29,481,290	($8,746,079)	80%	1%	$3,702,437	$24,866,121
Bristol Bay	$13,693,630	5%	15.59%	$29,578,665	$1,095,702	46%	1%	$2,638,597	$24,866,121
Copper River/Chugach	$27,663,273	10%	11.60%	$22,008,963	($16,658,792)	126%	1%	$3,006,078	$24,866,121
Kodiak	$16,659,519	6%	7.67%	$14,547,653	($9,385,692)	115%	2%	$4,809,421	$24,866,121
Lower Yukon-Kuskokwim	$38,749,816	14%	20.28%	$38,479,876	($19,509,878)	101%	4%	$10,057,474	$24,866,121
North Slope	$2,069,151	1%	2.13%	$4,037,479	($50,412)	51%	1%	$3,678,973	$24,866,121
Northwest Arctic	$28,031,633	10%	16.64%	$31,587,864	($12,237,701)	89%	1%	$2,851,668	$24,866,121
Railbelt	$26,265,165	10%	6.06%	$11,502,351	($20,513,990)	228%	77%	$211,147,151	$24,866,121
Southeast	$61,134,351	22%	9.03%	$17,139,635	($52,564,533)	357%	10%	$26,780,318	$24,866,121
Yukon-Koyukuk/Upper Tanana	$16,851,832	6%	26.09%	$49,521,277	$7,908,806	34%	1%	$1,823,024	$24,866,121
Statewide	$1,035,888	0%	0.00%						
TOTAL	**$273,527,331**	**100%**		**$273,527,331**			**100%**	**$273,527,331**	**$273,527,331**

REFAC Roles

Statutes (AS 42.45.045)

- AEA "in consultation with the advisory committee…develop a methodology for determining the order of projects that may receive assistance…."
- AEA "shall, at least once each year, solicit from the advisory committee funding recommendations for all grants."

Regulations (3 AAC 107.660)

(a) To establish a statewide balance of recommended projects, the authority will provide to the advisory committee established in AS 42.45.045 (i) a statewide and regional ranking of all applications recommended for grants.

(b) In consultation with the advisory committee established in AS 42.45.045 (i), the authority will

(1) make a final prioritized list of all recommended projects, giving significant weight to providing a statewide balance of grant money, and taking into consideration the amount of money that may be available, number and types of projects within each region, regional rank, and statewide rank

REFAC Advisory Committee

NAME	TITLE	SECTOR	APPOINTED BY
VACANT	VACANT	Small rural electric utility	Governor (pending)
Rose, Chris	Founder / Executive Director, Renewable Energy Alaska Project (REAP)	Business/organization involved in renewable energy	Governor
VACANT	VACANT	Representative of an Alaska Native Organization	Governor (pending)
Amberg, Alicia	Member, Denali Commission; Exec Dir, Associated General Contractors of Alaska	Denali Commission	Governor
Janorschke, Bradley	General Manager, Homer Electric Association	Large urban electric utility	Governor
Stedman, Bert	Senator	Senate Member 2	Senate President
Wilson, David	Senator	Senate Member 1	Senate President
Carpenter, Ben	Representative	House Member 2	Speaker of the House
Cronk, Mike	Representative	House Member 1	Speaker of the House

Round XV – Recommended Applications Summary

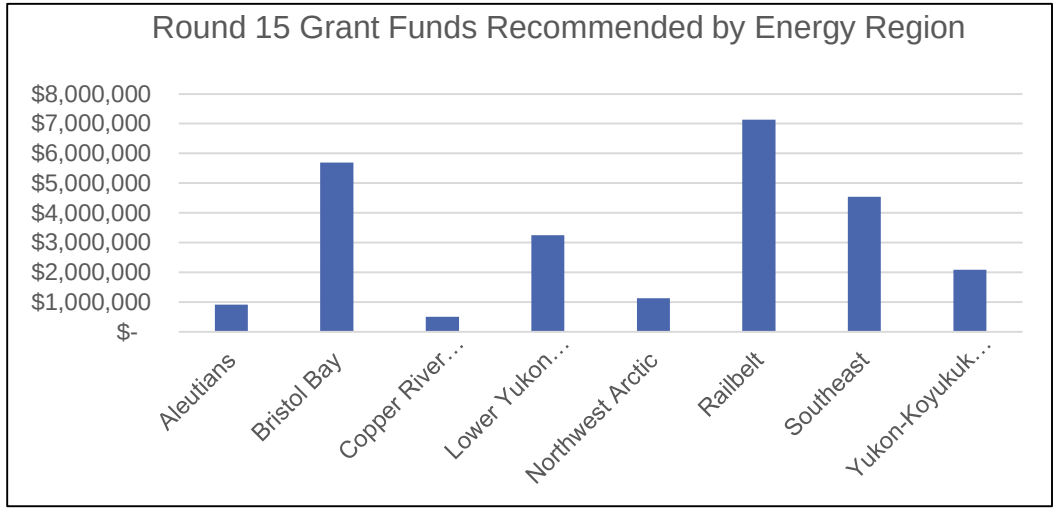
There are 27 recommended applications, totaling a request of $25.25 million.

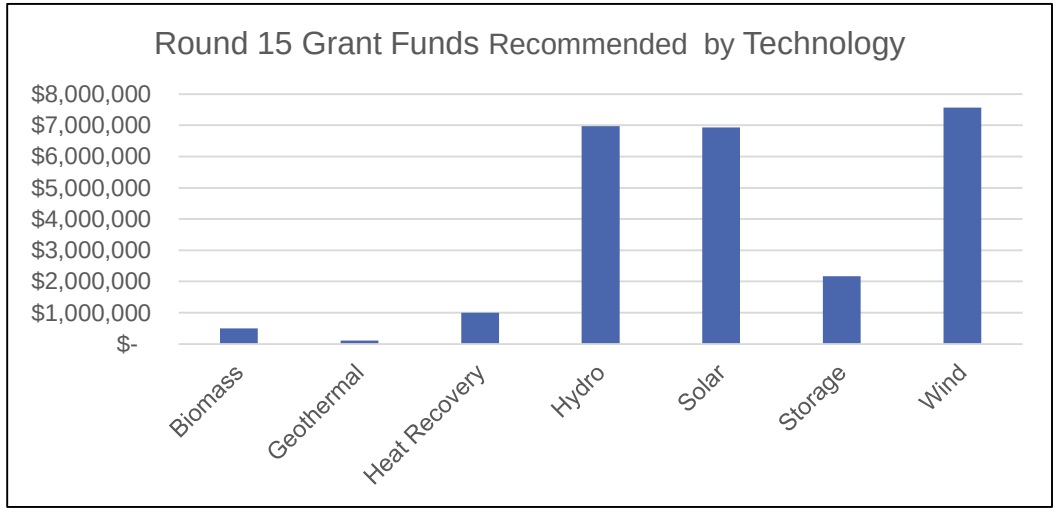
Round 15 Summary: Recommended Applications by Energy Region

Energy Region	# Applications	REF Requested ($)	% Total
Aleutians	2	$ 917,650	4%
Bristol Bay	4	$ 5,692,378	23%
Copper River Chugach	1	$ 500,000	2%
Lower Yukon Kuskokwim	6	$ 3,250,568	13%
Northwest Arctic	1	$ 1,134,500	4%
Railbelt	10	$ 7,136,233	28%
Southeast	2	$ 4,538,526	18%
Yukon-Koyukuk Upper Tanana	1	$ 2,082,000	8%
Total	27	$ 25,251,855	

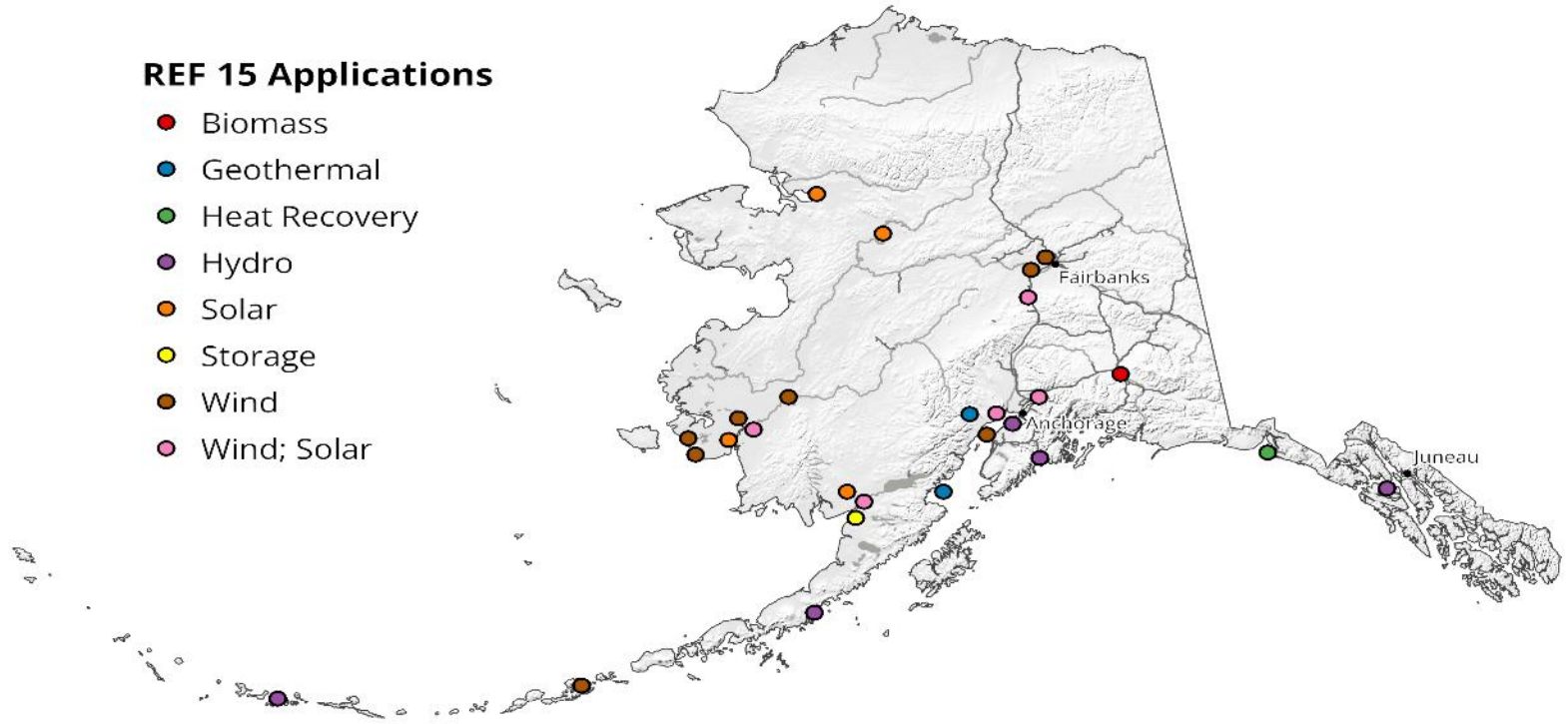
Round 15 Summary: Recommended Application by Technology

Technology	# Applications	REF Requested ($)
Biomass	1	$ 500,000
Geothermal	2	$ 113,500
Heat Recovery	1	$ 1,000,000
Hydro	5	$ 6,967,570
Solar	4	$ 6,934,268
Storage	1	$ 2,172,984
Wind	13	$ 7,563,533
Total	27	$ 25,251,855





Round XV Geographical Distribution of Recommended Applications



Applications Forwarded for Legislature's Decision on Funding

Recommended Projects*										Recommendation							
App. #	Applicant	Project Title	Phase	Energy Region	Election District	Technology	Community	Grant Funds Requested	Matching Funds	Stage 3 Score	Benefit / Cost Ratio	HEC	Regional Rank	State Rank	Rec. Funding Level	Rec. Funding Amount	Cumulative Rec. Funding**
15007	TDX Adak Generating, LLC	Hydroelectric Power Adak - Feasibility and Conceptual Design	Feasibility and Conceptual Design	Aleutians	37-S	Hydro	Adak	$ 497,650	$ 247,075	91.66	1.26	$ 12,265	1	1	Full	$ 497,650	$ 497,650
15018	Golden Valley Electric Association	LIDAR Improvement to Interior Wind Energy Assessments	Feasibility and Conceptual Design	Railbelt	36-R	Wind	Railbelt	$ 250,000	$ 125,000	90.78	2.46	$ 9,943	1	2	Full	$ 250,000	$ 747,650
15025	Alaska Electric & Energy Cooperative, Inc. (AEEC)	Mount Spurr Geothermal	Feasibility and Conceptual Design	Railbelt	37-S	Geothermal	Railbelt	$ 45,500	$ 30,940	88.06	1.83	$ 7,523	2	3	Full	$ 45,500	$ 793,150
15024	Alaska Electric & Energy Cooperative, Inc. (AEEC)	Augustine Island Geothermal	Feasibility and Conceptual Design	Railbelt	37-S	Geothermal	Railbelt	$ 68,000	$ 42,140	87.76	1.83	$ 7,523	3	4	Full	$ 68,000	$ 861,150
15022	Naknek Electric Association Inc	Naknek Electric Battery Energy Storage System	Final Design and Permitting; Construction	Bristol Bay	37-S	Storage	Naknek, South Naknek, King Salmon	$ 2,172,984	$ 1,950,000	83.47	1.07	$ 10,532	1	5	Full	$ 2,172,984	$ 3,034,134
15001	Native Village of Kluti-Kaah	Woodchip Heating Project	Construction	Copper River Chugach	36-R	Biomass	Native Village of Kluti-Kaah (Copper Center)	$ 500,000	$ 403,400	81.84	1.04	$ 10,138	1	6	Full	$ 500,000	$ 3,534,134
15013	Kipnuk Light Plant	Kipnuk Battery Installation, Integration and Commissioning	Construction	Lower Yukon Kuskokwim	38-S	Wind	Kipnuk	$ 434,000	$ 859,000	80.53	5.00	$ 9,624	1	7	Full	$ 434,000	$ 3,968,134
15028	Inside Passage Electric Cooperative	Water Supply Creek Hydro Construction	Construction	Southeast	2-A	Hydro	Hoonah	$ 3,538,526	$ 6,853,474	80.42	0.38	$ 9,663	1	8	Full	$ 3,538,526	$ 7,506,660
15005	Cook Inlet Region Inc (CIRI) Energy, LLC	Beluga Renewable Resource Assessment	Feasibility and Conceptual Design	Railbelt	37-S	Wind	Beluga	$ 298,000	$ 54,000	79.99	0.91	$ 13,101	4	9	Full	$ 298,000	$ 7,804,660
15011	Naterkaq Light Plant	Chefornak Battery Installation, Integration, and Commissioning	Construction	Lower Yukon Kuskokwim	38-S	Wind	Chefornak	$ 437,000	$ 859,000	78.91	1.72	$ 8,946	2	10	Full	$ 437,000	$ 8,241,660
15004	Cook Inlet Region Inc (CIRI) Energy, LLC	Healy Renewable Resource Assessment	Feasibility and Conceptual Design	Railbelt	30-O	Wind	Healy	$ 298,000	$ 54,000	78.36	2.59	$ 9,425	5	11	Full	$ 298,000	$ 8,539,660
15023	Alaska Electric & Energy Cooperative, Inc. (AEEC)	Cook Inlet Oil Platform Wind Project	Reconnaissance; Feasibility and Conceptual Design	Railbelt	8-D	Wind	HEA Serving Area	$ 214,400	$ 97,448	77.64	1.15	$ 7,523	6	12	Full	$ 214,400	$ 8,754,060
15006	Tanana Chiefs Conference	Huslia Community-Scale Solar PV and Battery Project	Final Design and Permitting; Construction	Yukon-Koyukuk Upper Tanana	36-R	Solar	Huslia	$ 2,082,000	$ 110,000	74.77	1.00	$ 11,090	1	13	Full	$ 2,082,000	$ 10,836,060

**Orange line indicates limit of recommended projects able to be funded with $7.5 million appropriation; funding of additional projects will require an increased appropriation equal to those cumulative funding amounts as recommended.

Please see related summary report for details concerning the evaluation and description of the individual applications.

Applications Forwarded for Legislature's Decision on Funding (continued)

Recommended Projects*										Recommendation							
App. #	Applicant	Project Title	Phase	Energy Region	Election District	Technology	Community	Grant Funds Requested	Matching Funds	Stage 3 Score	Benefit / Cost Ratio	HEC	Regional Rank	State Rank	Rec. Funding Level	Rec. Funding Amount	Cumulative Rec. Funding**
15009	Matanuska Electric Association	Railbelt Wind Feasbility Study and Conceptual Design	Feasibility and Conceptual Design	Railbelt	Various	Wind	Railbelt	$ 1,833,333	$ 550,000	73.83	1.10	$ 5,792	7	14	Full	$ 1,833,333	$ 12,669,393
15003	Northwest Arctic Borough	Selawik Solar PV	Construction	Northwest Arctic	40-T	Solar	Selawik	$ 1,134,500	$ 251,500	72.86	0.88	$ 8,448	1	15	Full	$ 1,134,500	$ 13,803,893
15026	Yakutat Community Health Center	Yakutat Community Health Center Heat Recovery Project	Final Design and Permitting; Construction	Southeast	2-A	Heat Recovery	Yakutat	$ 1,000,000	$ 273,000	72.19	1.24	$ 7,957	2	16	Full w/ special provisions	$ 1,000,000	$ 14,803,893
15016	Alaska Village Electric Cooperative	Kalskag Wind Feasibility and Conceptual Design	Feasibility and Conceptual Design	Lower Yukon Kuskokwim	37-S	Wind	Kalskag	$ 267,300	$ 29,700	72.10	0.30	$ 9,022	3	17	Full	$ 267,300	$ 15,071,193
15021	Alaska Renewables LLC	Utility-Scale Railbelt Wind – Alaska Renewables	Final Design and Permitting	Railbelt	30-O; 36-R	Wind	Railbelt	$ 2,000,000	$ 3,546,500	71.64	0.68	$ 5,791	8	18	Full	$ 2,000,000	$ 17,071,193
15017	Alaska Village Electric Cooperative	New Stuyahok Solar Energy and Battery Storage Project	Final Design and Permitting; Construction	Bristol Bay	37-S	Solar	New Stuyahok, Ekwok	$ 2,520,000	$ 280,000	64.67	0.07	$ 9,273	2	19	Full	$ 2,520,000	$ 19,591,193
15014	City of Chignik	Chignik Hydroelectric Power System	Final Design and Permitting	Bristol Bay	37-S	Hydro	Chignik	$ 802,394	$ 43,767	61.47	0.67	$ 6,780	3	20	Full	$ 802,394	$ 20,393,587
15012	Atmautluak Tribal Utilities	Atmautluak Battery and Thermal Stove Installation, Integration and Commissioning	Construction	Lower Yukon Kuskokwim	38-S	Wind	Atmautluak	$ 577,000	$ 81,000	59.18	0.77	$ 9,546	4	21	Full	$ 577,000	$ 20,970,587
15029	Chugach Electric Association	Godwin Creek Hydroelectric Project	Feasibility and Conceptual Design	Railbelt	5-C	Hydro	CEA Serving Area	$ 1,729,000	$ 306,117	58.53	0.40	$ 3,613	9	22	Full	$ 1,729,000	$ 22,699,587
15008	Turnagain Arm Tidal Energy Corp	Turnagain Arm Tidal Electricity Generation Project (TATEG)	Reconnaissance	Railbelt	16-H; 15-H; 8-D	Hydro	Railbelt	$ 1,400,000	$ 280,000	56.41	1.07	$ 5,792	10	23	Partial w/ Special Provision	$ 400,000	$ 23,099,587
15027	Tuntutuliak Community Services Association	Tuntutuliak Community Services Association Solar Energy Project	Final Design and Permitting; Construction	Lower Yukon Kuskokwim	38-S	Solar	Tuntutuliak	$ 1,197,768	$ 14,000	55.57	0.00	$ 10,426	5	24	Full w/ special provisions	$ 1,197,768	$ 24,297,355
15031	City of Unalaska	City of Unalaska Wind Power Design/Construction	Final Design and Permitting; Construction	Aleutians	37-S	Wind	Unalaska	$ 4,000,000	$ 8,790,000	54.05	0.90	$ 8,418	2	25	Partial	$ 420,000	$ 24,717,355
15010	City of Napaskiak	Napaskiak Reconnaissance and Wind Assessment Project	Reconnaissance; Feasibility and Conceptual Design	Lower Yukon Kuskokwim	38-S	Wind	Napaskiak	$ 446,500	$ 3,000	53.66	0.33	$ 10,069	6	26	Partial	$ 337,500	$ 25,054,855
15020	Levelock Village Council	Levelock Feasibility and Conceptual Design	Feasibility and Conceptual Design	Bristol Bay	37-S	Wind	Levelock	$ 197,000	$ 9,000	53.35	0.04	$ 10,171	4	27	Full w/ special provision	$ 197,000	$ 25,251,855

*If approved by the Legislature, this funding would become effective July 1, 2023 for inclusion in the Fiscal Year 2024 budget.

Please see related summary report for details concerning the evaluation and description of the individual applications.

Round XV –Partial Funding Recommendations

As part of the evaluation process and pursuant to 3 AAC 170.655(b), 3 applications, as provided below, have been recommended for partial funding. If these partial funding recommendations are reversed and full funding recommended, this would raise the total grant request amount for all remaining 27 recommended applications to $29.9 million. Reasoning for recommendations of partial funding are provided on the following page. Partial funding recommendations have been made in full consideration of additional due diligence and information needed from preliminary project phases prior to funding for final design and/or construction; eligibility of items comprising project scope; and statewide balance of grant money, taking into consideration the amount of money available, number and types of projects within each region, regional rank, and statewide rank (as per 3 AAC 107.660).

Application Number	Applicant Name	Project Title	Project Phase	Energy Region	Election District	Tech	Grant Funds Requested	Matching Funds	Match Type	Stage 3 Score	Benefit/Cost Ratio	Household Energy Cost	Regional Rank	Statewide Rank	Recommended Funding Amount
15008	Turnagain Arm Tidal Energy Corp	Turnagain Arm Tidal Electricity Generation	Reconnaissance	Railbelt	16-H; 15-H; 8-D	Hydro	$1,400,000	$ 280,000	In Kind	56	1.07	$5,792	10	23	$ 400,000
15010	City of Napaskiak	Napaskiak Reconnaissance and Wind Assessment	Reconnaissance	Lower Yukon Kuskokwim	38-S	Wind	$ 446,500	$ 3,000	In Kind	54	0.33	$10,069	6	26	$ 337,500
15031	City of Unalaska	City of Unalaska Wind Power Design/Construction	Final Design and Permitting; Construction	Aleutians	37-S	Wind	$4,000,000	$8,790,000	Cash	54	0.9	$8,418	2	25	$ 420,000

Round XV –Partial Funding Reasoning

Application Number	Applicant Name	Project Title	Partial Funding Reasoning
15008	Turnagain Arm Tidal Energy Corp	Turnagain Arm Tidal Electricity Generation	The requested funding amount was to fund two studies, one study for regulatory requirements and permitting and one study for bathymetry for the site. AEA recommends funding only the study for regulatory requirements and permitting in Round 15. Reconnaissance studies are a desktop study and the analysis should use resource, economic, and operational data that is readily and/or publicly available. There are also many stakeholders on a project such as TATEG, and it is imperative for project planners to conduct extensive stakeholder outreach prior to any feasibility study work, such as bathymetric mapping, to determine the extent of stakeholder approval. Additionally, the TATEG project's permitting and regulatory requirements must be known before the project team can sufficiently define the scope of work, and subsequently estimate the project cost and schedule.
15010	City of Napaskiak	Napaskiak Reconnaissance and Wind Assessment	Costs proposed for equipment and monitoring in the application appear high when compared to similar projects. AEA recommends partial funding for the met tower to bring the cost in line with similar projects; requested funding for this line item was $194k and AEA recommends $97k. AEA recommends partial funding for monitoring costs; requested funding for this line item was $2,000 a month and AEA recommends $1,000.
15031	City of Unalaska	City of Unalaska Wind Power Design/Construction	The requested phases were Final Design & Permitting and Construction. AEA recommends funding only the Final Design & Permitting Phase in Round 15. Partial funding will allow for more refined cost estimates for the Construction Phase in future REF rounds, as well as, provides additional time to determine if other energy projects will be moving forward in the region.

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Staffing Needs

ALASKA ENERGY AUTHORITY

Infrastructure Investment and Jobs Act (IIJA) Staffing Needs

- Managing and deploying millions of federal IIJA funds in compliance with federal requirements requires adequate technical and administrative support. **Five (5) key positions, funded by federal IIJA receipts,** are needed to carry out IIJA projects:

- Project Manager R24	$160.1
- Project Manager R24	$160.1
- Contracting Officer R20	$127.6
- Senior Accountant R18	$114.4
- Grant Coordinator R18	$114.4
Total	$676.6

Power Cost Equalization (PCE) Staffing Needs

- $233.9 increment for technical and administrative support. This includes **one (1) PCE Technician** needed for training, inventory, and technical assistance. Fund source is PCE Endowment Earnings.
  - PCE Technician R14 – $106.8
  - PCE Salary Adjustment, Rural Assistance, Shared Services - $127.1