

January 26, 2023

The Honorable Gary Stevens
Senate President
Alaska State Legislature
State Capitol Room 111
Juneau, Alaska 99801

The Honorable Cathy Tilton
Speaker of the House
Alaska State Legislature
State Capitol Room 208
Juneau, Alaska 99801

Dear President Stevens and Speaker Tilton,

In accordance with Alaska Statute AS 42.45.045(d)(3), the Alaska Energy Authority (AEA) is pleased to provide an update regarding the status of the current Round 15 Renewable Energy Fund (REF) recommendations for consideration by the Legislature.

From 2008 to 2022, the State of Alaska has appropriated nearly \$300 million in support of over 270 REF projects as recommended to the Legislature. This total includes a most recent Legislative appropriation of \$15 million in FY2023 for Round 14, the largest appropriation since FY2014. This State funding has been supplemented with hundreds of millions of dollars from local sources to develop viable renewable energy projects designed to reduce reliance on fossil fuel consumption for energy needs, proving the efficacy of nascent technologies in cold-weather climates, and stabilizing the cost of energy for urban and rural communities across Alaska.

Since the program's inception, the REF has provided funding for the development of qualifying and competitively selected renewable energy projects. Designed to produce cost-effective renewable energy for both heat and power, the program has matured, the energy and heat technologies proposed have expanded in both scope and application, the number of proposed projects has grown, and the knowledge base for designing, constructing and operating renewable energy projects in Alaska's diverse climates and terrain has also advanced.

Round 14 (FY2023)

In April 2022, AEA met with the Renewable Energy Fund Advisory Committee (REFAC), a nine member committee (five members of the public and four members from the Legislature) that works in consultation with AEA, offering valuable guidance and policy direction regarding the application and evaluation process, and final funding recommendations for 27 of 39 total applications submitted. Following AEA's solicitation of advice from the REFAC, the committee unanimously voted in agreement with the recommendations and rankings as presented by AEA.

In recognition of the REF's significant role in the advancement of viable renewable energy projects, through its provision of vital financial support for projects in all stages of development and throughout all regions of the State, the Legislature approved all 27 projects as recommended by AEA for a total appropriation of \$15 million with its passage of HB281 in May 2022. This

appropriation will support the development of renewable energy projects across multiple project phases, and communities from the Southeast to the Northwest Arctic will benefit.

Round 15 (FY2024)

On October 4, 2022 AEA issued its Request for Applications (RFA) for Round 15 of the REF, with a corresponding deadline for receipt of applications of Dec 5, 2022. As of the deadline, AEA received a total of 31 applications, yielding a total grant request of \$33 million, as summarized in the tables below, by energy region and technology type, respectively.

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

Recommendations to the Legislature

The REF is a competitive grant application program whereby all applications are subject to a thorough and proven four-stage review process which is outlined in the attachment to this letter. Stage 2 and Stage 3 evaluations, concerned with the economic and technical evaluations and ranking of the applications, respectively, are anticipated for completion by late February 2023. AEA intends to confer and solicit advice from the Renewable Energy Fund Advisory Committee (REFAC), as required pursuant to AS 42.45.045(e) and regulation 3 AAC 107.660, in March 2023.

Following a conference with the REFAC, AEA intends to submit its final recommendations to the Governor and Legislature in March 2023, for final Legislative consideration of REF FY2024 funding.

Sincerely,

A handwritten signature in blue ink, appearing to read "Curtis W. Thayer".

Curtis W. Thayer
Executive Director

CC: Alaska Energy Authority Board of Directors
Alaska State Legislature
Renewable Energy Fund Advisory Committee (REFAC)

Attachment – REF Evaluation Process Overview

Renewable Energy Fund Evaluation Process Overview

Alaska Energy Authority —
Renewable Energy Fund —

January 12, 2023



ALASKA ENERGY AUTHORITY



REDUCING THE COST OF ENERGY IN ALASKA

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.

*3 AAC 107.615 a project is a "direct use" of RE resources if it uses renewable energy resources to generate or to make a fuel used to generate energy

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.



REF Evaluation Process - Stage 1 – Eligibility and Completeness

The REF evaluation process is comprised of four stages. Stage one is an evaluation of applicant and project eligibility and application completeness, 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 two) of the evaluation.
 - The application must provide a detail 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 which fail to meet the requirements of stage one will be rejected by the authority, and will notify each applicant whose application is rejected of the authority's decision.



REF Evaluation Process - Stage 2 – Technical and Economic Feasibility

Stage two 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 vendors.

The following items are evaluated as part of the stage two 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
- 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. Those applications that score below 40 points in this stage will be automatically rejected by the authority, however, those projects scoring above 40 can 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 three 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 four 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 9									
Energy Region	Total Round 1-9 Funding		Cost of Power Allocation				Population		Even Split
	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	\$17,426,348	7%	9.39%	\$17,935,444	(\$8,458,626)	97%	1%	\$2,851,862	\$21,991,472
Bering Straits	\$20,485,269	8%	15.43%	\$29,456,220	(\$5,757,159)	70%	1%	\$3,301,922	\$21,991,472
Bristol Bay	\$10,911,982	5%	14.40%	\$27,499,297	\$2,837,666	40%	1%	\$2,498,585	\$21,991,472
Copper River/Chugach	\$23,793,838	10%	6.93%	\$13,224,221	(\$17,181,728)	180%	1%	\$3,090,571	\$21,991,472
Kodiak	\$16,486,919	7%	5.83%	\$11,132,481	(\$10,920,678)	148%	1%	\$2,951,723	\$21,991,472
Lower Yukon-Kuskokwim	\$37,237,089	15%	17.83%	\$34,039,114	(\$20,217,531)	109%	4%	\$8,971,788	\$21,991,472
North Slope	\$1,251,859	1%	3.87%	\$7,393,706	\$2,444,994	17%	1%	\$2,491,403	\$21,991,472
Northwest Arctic	\$23,119,029	10%	15.99%	\$30,540,928	(\$7,848,564)	76%	1%	\$2,512,949	\$21,991,472
Railbelt	\$22,059,938	9%	5.05%	\$9,636,377	(\$17,241,750)	229%	78%	\$188,445,503	\$21,991,472
Southeast	\$54,193,791	22%	5.48%	\$10,469,004	(\$48,959,289)	518%	9%	\$22,566,950	\$21,991,472
Yukon-Koyukuk/Upper Tanana	\$14,377,031	6%	26.49%	\$50,579,402	\$10,912,670	28%	1%	\$2,222,940	\$21,991,472
Statewide	\$563,101	0%	0.00%						
TOTAL	\$241,906,195	100%		\$241,906,195			100%	\$241,906,195	\$241,906,195



REF 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	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 II, Feasibility and Conceptual Design		
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 governed 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



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	TBD	Small rural electric utility	Governor
Rose, Chris	Executive Director, Renewable Energy Alaska Project	Business/organization involved in renewable energy	Governor
VACANT	TBD	Representative of an Alaska Native Organization	Governor
Amberg, Alicia	Member, Denali Commission; Exec Dir, Associated General Contractors of Alaska	Denali Commission	Governor
Janorschke, Brad	General Manager, Homer Electric Assoc.	Large urban electric utility	Governor
VACANT	Senate Member 2	Senate Member 2	Senate President
VACANT	Senate Member 1	Senate Member 1	Senate President
VACANT	House Member 2	House Member 2	Speaker of the House
VACANT	House Member 1	House Member 1	Speaker of the House





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