

# Renewable Energy Fund Round 17 Status Report

Alaska Energy Authority —  
Renewable Energy Fund – Round XVII

Alaska State Legislature  
January 2025



ALASKA ENERGY AUTHORITY



SAFE,  
RELIABLE, &  
AFFORDABLE  
ENERGY  
SOLUTIONS

REDUCING THE COST OF ENERGY IN ALASKA

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# Renewable Energy Fund (REF) Overview

Established in 2008, the REF is a unique and robust competitive grant program, which provides critical financial assistance for statewide renewable energy projects. The REF's sunset date provision was repealed with House Bill 62, signed into law by Governor Dunleavy on May 25, 2023.

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.



\$327 million in REF appropriations by the State.



100+ operational projects, 53 in development, and 5 projects funded in FY25.



The 33<sup>rd</sup> Alaska State Legislature appropriated \$10.5 million for 5 projects recommended by AEA and approved by the REF Advisory Committee.



# 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.

## ELIGIBLE APPLICANTS INCLUDE:

- electric utility holding a certificate of public convenience and necessity (CPCN);
- independent power producer;
- local government;
- or, or other governmental utility, including a tribal council and housing authority.



# 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 fail to meet the requirements of Stage 1 are rejected by the Authority. Each applicant whose application is rejected is 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 of advice from the Renewable Energy Fund Advisory Committee (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.

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]

Cumulative through Round 16									
Energy Region	Total Round 1-16 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	\$18,424,940	6%	13.50%	\$28,394,207	(\$4,227,837)	65%	1%	\$3,348,662	\$27,422,307
Bering Straits	\$23,486,724	8%	16.18%	\$34,017,155	(\$6,478,146)	69%	1%	\$4,088,861	\$27,422,307
Bristol Bay	\$17,590,323	6%	15.99%	\$33,620,027	(\$780,310)	52%	1%	\$2,868,848	\$27,422,307
Copper River/Chugach	\$28,047,612	9%	10.23%	\$21,512,838	(\$17,291,193)	130%	1%	\$3,319,823	\$27,422,307
Kodiak	\$16,659,519	6%	6.96%	\$14,632,449	(\$9,343,294)	114%	2%	\$5,311,382	\$27,422,307
Lower Yukon-Kuskokwim	\$39,888,116	13%	21.01%	\$44,170,624	(\$17,802,804)	90%	4%	\$10,825,473	\$27,422,307
North Slope	\$1,251,859	0%	2.56%	\$5,388,828	\$1,442,555	23%	1%	\$4,062,948	\$27,422,307
Northwest Arctic	\$32,841,133	11%	16.94%	\$35,621,898	(\$15,030,184)	92%	1%	\$3,149,297	\$27,422,307
Railbelt	\$35,226,299	12%	5.72%	\$12,036,080	(\$29,208,260)	293%	77%	\$233,081,400	\$27,422,307
Southeast	\$66,251,014	22%	8.23%	\$17,303,821	(\$57,599,103)	383%	10%	\$29,575,387	\$27,422,307
Yukon-Koyukuk/Upper Tanana	\$20,941,945	7%	26.13%	\$54,947,446	\$6,531,777	38%	1%	\$2,013,293	\$27,422,307
Statewide	\$1,035,888	0%	0.00%						
<b>TOTAL</b>	<b>\$301,645,374</b>	<b>100%</b>		<b>\$301,645,374</b>			<b>100%</b>	<b>\$301,645,374</b>	<b>\$301,645,374</b>





# REF Funding Limits

## REF Round XVII Grant Funding Limits

Phase	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 <u>project</u> 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	<u>\$2 Million per project</u> , including final design and permitting (Phase III) costs, above.	<u>\$4 Million per project</u> , 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 XVII 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 connected to the Railbelt electrical grid or 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 FY2026 / Round XVII

The State of Alaska FY2026 proposed capital budget allocates \$6.3 million for REF Round 17 grant funding of recommended projects, fully funding the top 6 projects.

The current list of 18 recommended projects yields a total grant request of \$21,214,676. With the proposed REF budget of \$6.3 million, there would be insufficient funding to cover all current Round 17 projects as recommended. An additional appropriation of \$14.9 million would need to be made to fund all of the current Round 17 recommendations.

The table to the right provides historical REF program funding from program inception through FY2025.

In the FY2025 capital budget, \$10.5 was approved in support of the top five projects as recommended in REF Round 16, resulting in REF appropriations in excess of \$10 million for the past three fiscal years.

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
\$	17,052,000	FY2024
\$	10,521,836	FY2025
\$ 327,017,258		<b>TOTAL (excl. operating appropriation)</b>

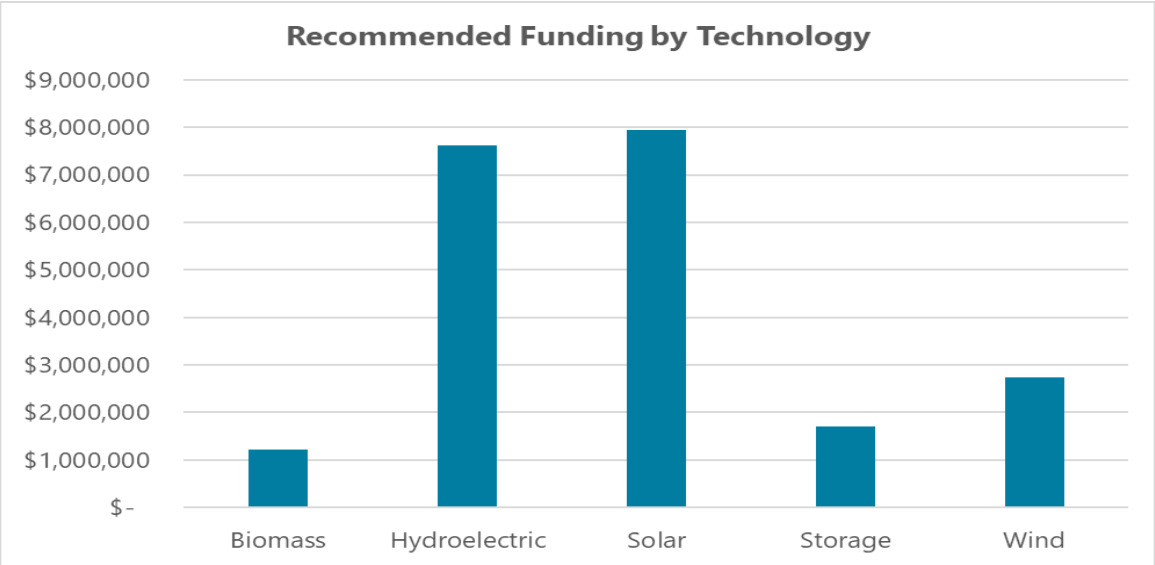
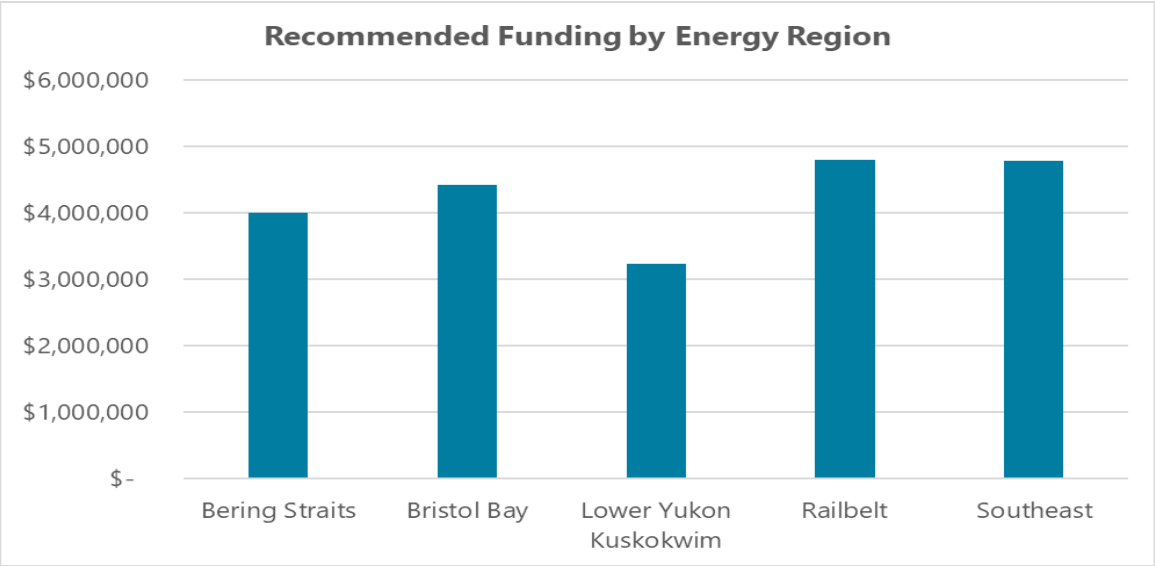


# Round XVII – Recommended Applications Summary

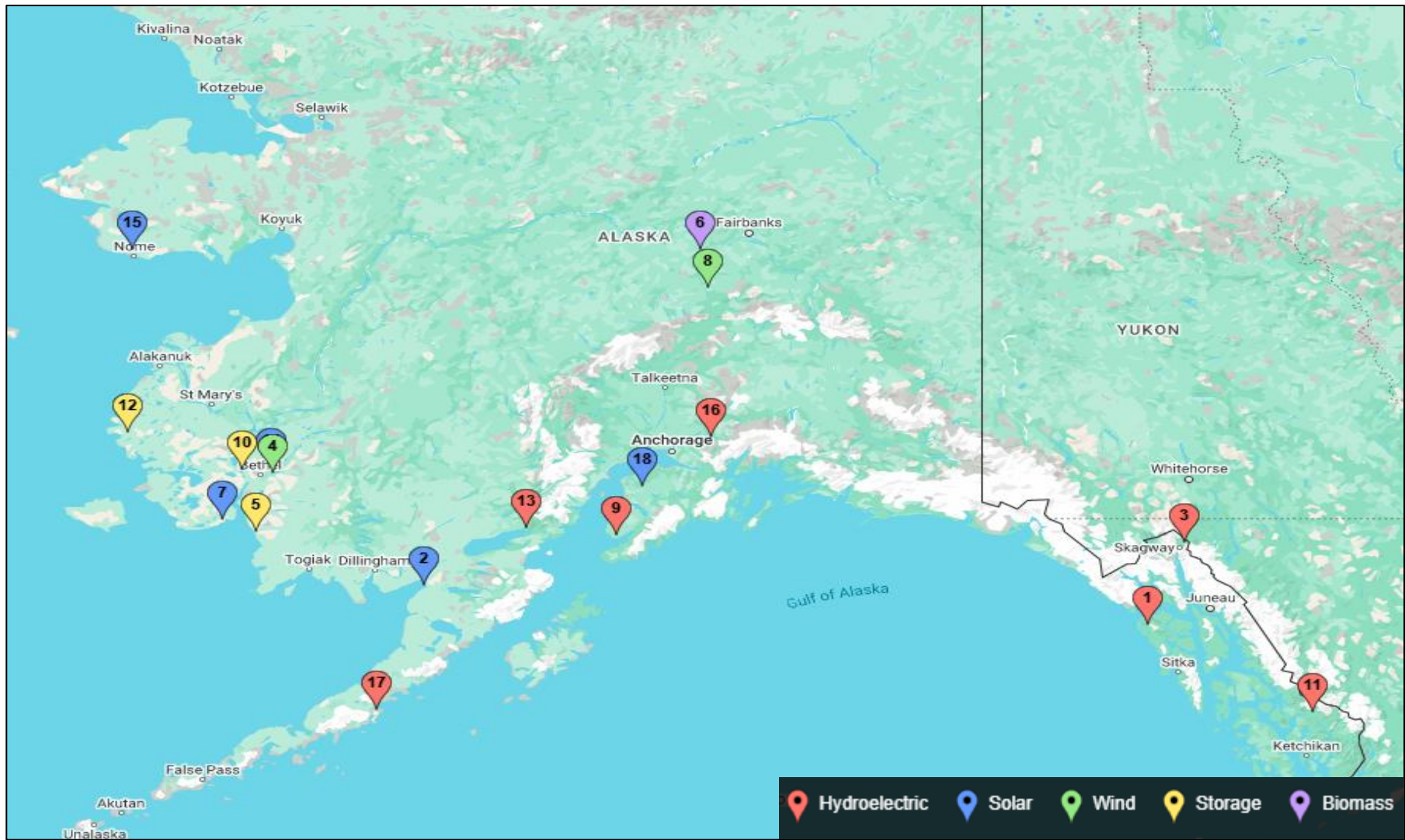
There are 18 recommended applications, totaling a request of \$21.2 million.

Applications by Energy Region	No. of Applications	REF Funds Requested
Bering Straits	1	\$ 4,000,000
Bristol Bay	3	\$ 4,420,860
Lower Yukon-Kuskokwim	6	\$ 3,226,092
Railbelt	5	\$ 4,796,000
Southeast	3	\$ 4,771,724
Total	18	\$ 21,214,676

Applications by Technology	No. of Applications	REF Funds Requested
Biomass	1	\$ 1,223,000
Hydroelectric	7	\$ 7,615,236
Solar	5	\$ 7,938,634
Storage	3	\$ 1,698,827
Wind	2	\$ 2,738,979
Total	18	\$ 21,214,676



# Round XVII Geographical Distribution of Recommended Applications





# Applications Forwarded to the Legislature for a Decision on Funding

Round 17 Projects Summary														REF Round 17 Recommended Funding		
Application No.	Applicant	Project Title	Phase	Energy Region	Election District	Technology	Community	Grant Funds Requested	Matching Funds	Stage 3 Score	Benefit / Cost Ratio	HEC	Region Rank	State Rank	Funding Level	Rec. Funding Amount (\$)
17006	City of Pelican, Pelican Utilities	Pelican Hydro Relicensing Project, Restoration, Repair	Final Design & Permitting, Construction	Southeast	2-A	Hydroelectric	Pelican	\$ 650,474	\$ 50,000	76	1.63	\$6,374	1	1	Full Funding	\$ 650,474
17014	Naknek Electric Association, Inc.	Naknek Solar PV on Cape Suwarof	Construction	Bristol Bay	37-S	Solar	Naknek	\$ 3,210,000	\$ 900,000	74	0.57	\$9,551	1	2	Partial Funding	\$ 3,137,848
17010	Goat Lake Hydro, Inc.	Goat Lake Hydro Storage Expansion Study	Reconnaissance	Southeast	3-B	Hydroelectric	Skagway, Haines, Dyea, Klukwan	\$ 121,250	\$ 52,250	71	0	\$6,371	2	3	Full Funding	\$ 121,250
17002	Nuvista Light and Electric Cooperative Inc	Nuvista Kwethluk Wind and Battery Project Completion	Construction	Lower Yukon-Kuskokwim	38-S	Wind, Storage	Kwethluk	\$ 738,979	\$ -	71	0.67	\$7,869	1		Full Funding w/ 4 Special Provision	\$ 738,979
17005	Alaska Village Electric Cooperative, Inc.	Quinhagak Battery Energy Storage System Project	Construction	Lower Yukon-Kuskokwim	38-S	Storage	Quinhagak	\$ 443,956	\$ 707,625	70	0.88	\$6,962	2	5	Full Funding	\$ 443,956
17012	City of Nenana	Nenana Biomass District Heat System, Final Phase	Construction	Railbelt	36-R	Biomass	Nenana	\$ 1,223,000	\$ 168,322	69	1.14	\$6,864	1	6	Full Funding	\$ 1,223,000
17017	Puvuruaq Power Company	Kongiganak 100 kW Solar Energy Project	Final Design & Permitting, Construction	Lower Yukon-Kuskokwim	38-S	Solar	Kongiganak	\$ 728,603	\$ 674,330	69	0.6	\$9,427	3	7	Partial Funding	\$ 720,453
17007	Alaska Renewables LLC	Railbelt Wind Diversification Alaska Renewables	Feasibility and Conceptual Design	Railbelt	Various	Wind	Various	\$ 2,000,000	\$ 2,187,000	69	1.22	\$5,458	2	8	Full Funding	\$ 2,000,000
17001	City of Homer	Homer Energy Recovery Project	Construction	Railbelt	6-C	Hydroelectric	Homer	\$ 280,000	\$ 90,000	68	0.01	\$7,120	3	9	Full Funding	\$ 280,000
17018	Atmautluak Tribal Utilities	Atmautluak ETS Installation, Integration and Commissioning	Construction	Lower Yukon-Kuskokwim	38-S	Storage	Atmautluak	\$ 286,227	\$ 188,160	68	0.29	\$8,538	4	10	Full Funding	\$ 286,227
17015	Southeast Alaska Power Agency (SEAPA)	Southeast Alaska Grid Resiliency (SEAGR)	Final Design & Permitting, Construction	Southeast	1-A; 2-A	Hydroelectric	Petersburg, Ketchikan, Wrangell, Metlakatla	\$ 4,000,000	\$18,592,510	68	0	\$6,730	3	11	Full Funding	\$ 4,000,000

\*If appropriated by the Legislature and approved the Governor, this funding would become effective July 1, 2025 for inclusion in the Fiscal Year 2026 budget. Projects above orange line denote those currently funded in Fiscal Year 2026 Proposed Capital Budget.



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

# Applications Forwarded to the Legislature for a Decision on Funding

Round 17 Projects Summary														REF Round 17 Recommended Funding		
Application No.	Applicant	Project Title	Phase	Energy Region	Election District	Technology	Community	Grant Funds Requested	Matching Funds	Stage 3 Score	Benefit / Cost Ratio	HEC	Region Rank	State Rank	Funding Level	Rec. Funding Amount (\$)
17004	Alaska Village Electric Cooperative, Inc.	Chevak Battery Energy Storage System Project	Construction	Lower Yukon-Kuskokwim	38-S	Solar, Storage	Chevak	\$ 968,644	\$ 170,937	66	0.62	\$6,902	5	12	Full Funding	\$ 968,644
17016	Pedro Bay Village Council	Knutson Creek Hydro Project Construction	Construction	Bristol Bay	37-S	Hydroelectric	Pedro Bay	\$ 400,000	\$ 7,200,000	65	0.08	\$9,390	2	13	Full Funding w/ Special Provision	\$ 400,000
17011	Akiachak, Ltd	Akiachak Native Community 200 kW Solar Energy Project	Final Design & Permitting, Construction	Lower Yukon-Kuskokwim	38-S	Solar	Akiachak	\$ 1,443,257	\$ 2,265,809	64	0.33	\$8,870	6	14	Partial Funding w/ Special Provision	\$ 67,833
17013	Nome Joint Utility System	NJUS Solar Nome Banner Ridge Solar Farm	Construction	Bering Straits	39-T	Solar, Storage	Nome	\$ 4,000,000	\$ 50,000	60	0.57	\$9,139	1	15	Full Funding	\$ 4,000,000
17009	Matanuska Electric Association	Hunter Creek Hydroelectric Feasibility Study Project	Feasibility and Conceptual Design	Railbelt	Various	Hydroelectric	MEA service area	\$ 1,280,500	\$ 384,500	58	0.67	\$5,920	4	16	Full Funding	\$ 1,280,500
17008	City of Chignik	Chignik Hydroelectric Power System	Final Design & Permitting	Bristol Bay	37-S	Hydroelectric	Chignik	\$ 883,012	\$ 44,346	57	1.06	\$7,701	3	17	Full Funding	\$ 883,012
17003	Utopian Power LLC	Sterling Solar Project	Final Design & Permitting, Construction	Railbelt	Various	Solar	Sterling	\$ 2,000,000	\$ 2,000,000	37	0.7	\$7,120	5	18	Partial Funding w/ Special Provision	\$ 12,500

\*If appropriated by the Legislature and approved the Governor, this funding would become effective July 1, 2025 for inclusion in the Fiscal Year 2026 budget. Projects above orange line denote those currently funded in Fiscal Year 2026 Proposed Capital Budget.



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

# Round XVII – Partial Funding Reasoning

As part of the evaluation process and pursuant to 3 AAC 170.655(b), 4 applications, as provided below, have been recommended for partial funding. Partial funding recommendations were made in full consideration of project phases applied for, application scoring, project scope eligibility, and household cost of energy.

App. #	Project	Requested Funding	Recommended Funding	Partial Funding Reasoning
17014	Naknek Solar PV on Cape Suwarof	\$3,210,000	\$3,137,848	Partial Funding adjustment is owing to exclusion of funding for final design cost of \$71,152 which is currently ongoing and already funded. Only costs incurred after July 1, 2025, and which are within the scope of the grant agreement are eligible for funding under the REF program. Revised funding recommendation: \$3,137,848
17017	Kongiganak 100 kW Solar Energy	\$728,603	\$720,453	Costs associated with the applicant's administration of the REF grant are not eligible uses of REF funds. The line item for "AEA Grant and NTP" for \$8,150 is therefore removed from the funding recommendation, yielding a revised funding recommendation of \$720,453.
17011	Akiachak Native Community 200 kW Solar Energy	\$1,443,257	\$67,833	Funding for final design only in Round 17 is recommended prior to recommendation for funding the construction phase, which will better inform the additional solar capacity integration. AEA requested a copy of the USDA award, solar resource study, and updated HOMER model from the applicant. Applicant provided the USDA grant agreement, but neither the solar resource study, or the updated HOMER model. The applicant may re-apply in a future REF round for the construction phase once the final design is completed. In addition, funding for grant administration is not allowable under the REF program. The \$8,150 for the line item entitled "AEA award and NTP" under the final design budget is removed from the funding recommendation, for a recommendation of \$67,833 in Round 17.
17003	Sterling Solar Project	\$2,000,000	\$12,500	Funding for final design and permitting recommended prior to recommendation for funding the construction phase. Many aspects of the project at this juncture are unclear and need to be revised. The applicant may re-apply in a future REF round for the construction phase once the final design is completed. AEA staff identified several issues with the application including: lack of detail on proposed system design, no letters of support included, not specific in stating required permits, lack of discussion of model results and no technical analysis of proposed system was provided.





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