

MEMORANDUM

TO: Board of Directors

THROUGH: Curtis Thayer, Executive Director

FROM: Conner Erickson, Director of Planning

DATE: October 11, 2024

SUBJECT: Renewable Energy Fund (REF) Report

At the September 10, 2024 Board Meeting, a Board member asked which Alaska communities have seen a net gain in energy available to them from REF Projects.

The following report is for all REF projects and current project status.

The projects highlighted in blue denote projects, which are currently in development, and the nameplate capacity (megawatts), energy production (megawatt-hours), and energy displacement (diesel fuel, fuel oil, natural gas, etc...) for those projects are to be determined.

The report also includes statistics on the following (by energy region) metrics, as provided in the summary tables on the final page of the report:

- REF projects by status (operational, closed/complete, development)
- REF additions to nameplate generation capacity, in megawatts (MW)
- Annual estimated volume of energy displacement (diesel fuel, Fuel oil, and natural gas) from operational REF projects



ALASKA ENERGY AUTHORITY RENEWABLE ENERGY FUND PROJECTS
*Projects highlighted in blue denote those projects currently in development. Nameplate capacity, energy production, energy displacement are to be determined.



Energy Region	REF Round	Project No.	Grant No.	Technology	Grantee	AEA Project Name	Avg. Annual Diesel / Diesel Equivalent Displacement Est. (gal)	Nameplate Capacity (MW)	REF Project Phase(s)	Status	Community Name	House District (2022)	Senate District (2022)	REF Budget
Aleutians														
Aleutians	Rd2	403038	2195450	Various	TDX Adak Generating, LLC	Adak Diesel Hybrid - Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Adak	37	S	\$ 76,369
Aleutians	Rd2	407062	2195473	Hydroelectric	City of Akutan	Town Crk Hydro-Design for Repairs/Upgrades -Closed	-	-	Final Design and Permitting	Closed	Akutan	37	S	\$ 162,000
Aleutians	Rd2	407061	2195472	Hydroelectric	City of Akutan	Loud Creek Hydro-Closed	-	-	Feasibility and Conceptual Design	Closed	Akutan	37	S	\$ 206,296
Aleutians	Rd3	407072	7030003	Hydroelectric	City of Akutan	Akutan Hydroelectric System Repair/Upgrade-Closed	10,431	0.11	Construction	Operational	Akutan	37	S	\$ 1,391,000
Aleutians	Rd2; Rd3; Rd4;	406010	2195475; 7030023; 7040050	Geothermal	City of Akutan	Akutan Geothermal Development Prj - Closed	-	-	Final Design and Permitting	Closed	Akutan	37	S	\$ 5,463,792
Aleutians	Rd3	403039	7030001	Hydroelectric	City of Atka	Atka Hydro Dispatched Excess Elect. Power-CLOSED	14,196	-	Final Design and Permitting	Operational	Atka	37	S	\$ 56,702
Aleutians	Rd1	407033	2195376	Hydroelectric	City of Atka	Chuniisax Cr Hydroelectric Construction - Closed	397,377	0.28	Construction	Operational	Atka	37	S	\$ 996,000
Aleutians	Rd6	403069	7060967	Heat Recovery	G&K Electric Utility	Cold Bay Waste Heat Recovery Project Closed	-	-	Feasibility and Conceptual Design	Closed	Cold Bay	37	S	\$ 17,525
Aleutians	Rd4	410061	7040004	Wind	G & K Electric Utility	Cold Bay Electric Utility Wind Energy R4-Closed	-	-	Feasibility and Conceptual Design	Closed	Cold Bay	37	S	\$ 57,592
Aleutians	Rd4	410079	7040051	Wind	City of False Pass Electric Utility	False Pass Wind Energy Project R4-CLOSED	-	-	Feasibility and Conceptual Design	Closed	False Pass	37	S	\$ 68,654
Aleutians	Rd5; Rd6	407090	7050887; 7060929	Hydroelectric	City of King Cove	Waterfall Creek Hydroelectric Project - Closed	59,981	0.38	Final Design and Permitting; Construction	Operational	King Cove	37	S	\$ 2,800,000
Aleutians	Rd4	410070	7040006	Wind	Nelson Lagoon Electric Cooperative	Nelson Lagoon Wind Energy Project R4-Closed	-	-	Feasibility and Conceptual Design	Closed	Nelson Lagoon	37	S	\$ 75,756
Aleutians	Rd1	410028	2195375	Wind	Nikolski IRA Council	Nikolski Wind Integration Construction Closed	-	0.07	Construction	Closed	Nikolski	37	S	\$ 409,430
Aleutians	Rd1	410029	2195398	Wind	City of St. George	St. George Wind Farm Construction-Closed	4,749	0.10	Construction	Operational	Saint George	37	S	\$ 1,485,167
Aleutians	Rd3	403040	7030004	Heat Recovery	City of Saint Paul Electric Utility	Saint Paul Fuel Economy Upgrade R3-CLOSED	2,120	-	Construction	Operational	Saint Paul	37	S	\$ 98,149
Aleutians	Rd3	409023	7030002	Wind	TDX Corporation	St. Paul Wind Diesel Project R3 - Closed	22,493	0.45	Construction	Operational	Saint Paul	37	S	\$ 1,790,301
Aleutians	Rd1	407051	2195408	Various	Aleutians East Borough	Aleutians East Borough Feasibility Study - Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Sand Point	37	S	\$ 25,000
Aleutians	Rd8	410100	7081163	Wind	TDX Power, Inc.	Sand Point Excess Wind Utilization - Closed	21,500	-	Final Design and Permitting; Construction	Operational	Sand Point	37	S	\$ 307,120
Aleutians	Rd2	410050	2195446	Wind	Aleutian Wind Energy	Sand Point Wind-Closed	34,984	1.00	Construction	Operational	Sand Point	37	S	\$ 639,495
Aleutians	Rd2	403032	2195449	Heat Recovery	City of Unalaska	Unalaska Heat Recovery Construction-CLOSED	19,096	-	Construction	Operational	Unalaska	37	S	\$ 1,300,000
Aleutians	Rd13	407116	7013007	Wind	City of Unalaska	City of Unalaska Wind Power Feasibility	-	-	Feasibility and Conceptual Design	Development	Unalaska	37	S	\$ 139,000
Aleutians	Rd14	407123	7014035	Hydroelectric	City of False Pass	UNGA Man Creek Hydro Project	-	-	Final Design and Permitting	Development	False Pass	37	S	\$ 321,000
Aleutians	Rd15	407127	7015007	Hydroelectric	TDX Adak Generating, LLC	Hydro - Feasibility and Conceptual Design - TDX Adak	-	-	Feasibility and Conceptual Design	Development	Adak	37	S	\$ 497,650
Aleutians Total							586,926	2.31						
Bering Straits														
Bering Straits	Rd7	403070	7071040	Heat Recovery	City of Brevig Mission	Brevig Mission Water System Heat Recovery-Closed	14,726	-	Construction	Closed	Brevig Mission	39	T	\$ 113,076
Bering Straits	Rd4	410077	7040053	Wind	Alaska Village Electric Cooperative	Elim Wind Feasibility R4-Closed	-	-	Feasibility and Conceptual Design	Closed	Elim	39	T	\$ 73,234
Bering Straits	Rd5	410080	7050876	Heat Recovery	Alaska Village Electric Cooperative	Gambell Wind Energy Recovery RD5-CLOSED	14,995	0.30	Construction	Operational	Gambell	39	T	\$ 239,950
Bering Straits	Rd4	410075	7040052	Wind	Alaska Village Electric Cooperative	Koyuk Wind Feasibility R4-Closed	-	-	Feasibility and Conceptual Design	Closed	Koyuk	39	T	\$ 16,142
Bering Straits	Rd9	407107	7091238	Heat Recovery	City of Koyuk	Koyuk Water System Heat Recovery R9	11,971	-	Final Design and Permitting	Closed	Koyuk	39	T	\$ 90,922
Bering Straits	Rd1	409017	2195444	Transmission	Nome Joint Utility Systems	Nome Banner Peak Wind Farm Trans Const-Closed	58,377	3.70	Construction	Operational	Nome	39	T	\$ 801,000
Bering Straits	Rd3; Rd4	406013	7030037; 7040007	Geothermal	UAF-Alaska Center for Energy and Power	Pilgrim Hot Springs Geothermal Assess R3,R4-Closed	-	-	Feasibility and Conceptual Design	Closed	Nome	39	T	\$ 1,943,411
Bering Straits	Rd1	410030	2195438	Wind	Nome Joint Utilities	Nome/Newton Peak Wind Farm Construction-Cld	119,770	3.70	Construction	Operational	Nome	39	T	\$ 8,069,000
Bering Straits	Rd6	403062	7060934	Heat Recovery	City of Savoonga	Savoonga Heat Recovery System R6 CLOSED	37,920	-	Construction	Operational	Savoonga	39	T	\$ 425,234
Bering Straits	Rd5	410081	7050871	Heat Recovery	Alaska Village Electric Cooperative, Inc.	Shaktoolik Surplus Wind Energy Recovery RD5-CLOSED	10,100	-	Final Design and Permitting; Construction	Operational	Shaktoolik	39	T	\$ 239,230

Energy Region	REF Round	Project No.	Grant No.	Technology	Grantee	AEA Project Name	Avg. Annual Diesel / Diesel Equivalent Displacement Est. (gal)	Nameplate Capacity (MW)	REF Project Phase(s)	Status	Community Name	House District (2022)	Senate District (2022)	REF Budget
Bering Straits	Rd2	410053	2195463	Wind	Alaska Village Electric Cooperative	Shaktoolik Wind-Closed	24,000	0.20	Construction	Operational	Shaktoolik	39	T	\$ 2,465,633
Bering Straits	Rd9	407108	7091223	Wind	Alaska Village Electric Cooperative	Shishmaref Wind Feasibility&Conceptual Design R9	-	-	Feasibility and Conceptual Design	Closed	Shishmaref	39	T	\$ 152,000
Bering Straits	Rd5	403055	7050856	Heat Recovery	City of Shishmaref	Shishmaref Heat Recovery Project R5	7,900	-	Construction	Operational	Shishmaref	39	T	\$ 310,841
Bering Straits	Rd4; Rd7	410066	7040008; 7071068	Wind	Alaska Village Electric Cooperative	Stebbins/St Michael Wind Feas.FD&Permitting-CLOSED	104,700	0.90	Feasibility and Conceptual Design; Final Design and Permitting	Operational	Stebbins	39	T	\$ 479,750
Bering Straits	Rd6	403065	7060939	Heat Recovery	Alaska Village Electric Cooperative, Inc.	Stebbins Heat Recovery Project R6-Closed	57,000	-	Construction	Operational	Stebbins	39	T	\$ 1,319,088
Bering Straits	Rd2	410054	2195464	Wind	Alaska Village Electric Cooperative	Teller Wind Analysis-Closed	-	-	Feasibility and Conceptual Design	Closed	Teller	39	T	\$ 98,165
Bering Straits	Rd1	410031	2195401	Wind	Unalakleet Valley Electric Co	Unalakleet Wind Farm Construction - Closed	25,716	0.60	Construction	Operational	Unalakleet	39	T	\$ 4,000,000
Bering Straits	Rd9	407105	7091234	Heat Recovery	City of Wales	Wales Water System Heat Recovery R9	9,726	-	Final Design and Permitting	Closed	Wales	39	T	\$ 650,047
Bering Straits	Rd14	410113	7014026	Storage	Nome Joint Utility System	Nome Battery Energy Storage System	-	2.00	Construction	Development	Nome	39	T	\$ 2,000,000
Bering Straits Total							460,478	9.4						
Bristol Bay														
Bristol Bay	Rd1	407034	2195388	Hydroelectric	City of Chignik	Indian Creek Hydro Feasibility Study	-	-	Final Design and Permitting	Closed	Chignik	37	S	\$ 198,513
Bristol Bay	Rd1	407036	2195389	Hydroelectric	Chignik Lagoon Power Utility	Chignik Lagoon Hydroelectric Final Design - Closed	Ref. Project #407091	-	Final Design and Permitting	Closed	Chignik Lagoon	37	S	\$ 150,000
Bristol Bay	Rd5; Rd7	407091	7050836; 7071036	Hydroelectric	Chignik Lagoon Village Council	Packer's Creek Hydroelectric Project - Closed	45,000	0.17	Construction	Operational	Chignik Lagoon	37	S	\$ 4,346,196
Bristol Bay	Rd1	410033	2195409	Wind	Lake and Peninsula Borough	Chignik Lake Area Wind-Hydro Final Design-Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Chignik Lake	37	S	\$ 74,851
Bristol Bay	Rd6	410088	7060912	Wind	Lake and Peninsula Borough	Egegik Wind Feasibility Study R6-Closed	-	-	Feasibility and Conceptual Design	Closed	Egegik	37	S	\$ 60,000
Bristol Bay	Rd7	410098	7071072	Wind	Igiugig Village Council	Igiugig Wind Resource Feasibility & CDR-CLOSED	-	-	Feasibility and Conceptual Design	Closed	Igiugig	37	S	\$ 80,000
Bristol Bay	Rd2	408002	2195466	Hydroelectric	Igiugig Village Council	Kvichak River - Ocean & River Energy-Closed	18,200	0.07	Construction	Operational	Igiugig	37	S	\$ 704,905
Bristol Bay	Rd6	410089	7060966	Wind	Kokhanok Electric Utilities	Kokhanok - High-penetration Wind Energy R6	18,000	0.18	Construction	Operational	Kokhanok	37	S	\$ 185,000
Bristol Bay	Rd4	410072	7040011	Heat Recovery	New Koliganek Village Council	New Koliganek Wind & Heat Recovery Feasb-Closed	-	-	Feasibility and Conceptual Design	Closed	Koliganek	37	S	\$ 77,853
Bristol Bay	Rd1	410032	2195374	Wind	Lake and Peninsula Borough	Lake Pen Borough Wind Feasibility Study-Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Lake & Peninsula Borough	37	S	\$ 184,000
Bristol Bay	Rd1; Rd4	402026	2195406; 7040010	Biomass	Lake and Peninsula Borough	Lake & Peninsula Borough Wood Boilers R1,R4-CLOSED	10,045	-	Final Design and Permitting; Construction	Operational	Kokhanok	37	S	\$ 280,421
Bristol Bay	Rd1	407035	2195419	Hydroelectric	Nushagak Electric and Telephone Cooperative	Nushagak Area Hydropower Project R3-Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Lake & Peninsula Borough	37	S	\$ 1,873,223
Bristol Bay	Rd6	410087	7060911	Wind	Lake and Peninsula Borough	Levelock Wind Reconnaissance Study R6-Closed	-	-	Feasibility and Conceptual Design	Closed	Levelock	37	S	\$ 10,000
Bristol Bay	Rd3	409025	7030006	Wind	Alaska Village Electric Cooperative	New Stuyahok Wind-Feasibility Analysis R3-Closed	-	-	Feasibility and Conceptual Design	Closed	New Stuyahok	37	S	\$ 142,500
Bristol Bay	Rd6	403068	7060944	Heat Recovery	Southwest Region School District	New Stuyahok Heat Recovery R6 - Closed	43,240	-	Construction	Operational	New Stuyahok	37	S	\$ 484,897
Bristol Bay	Rd6	407103	7060976	Hydroelectric	Pedro Bay Village Council	Pedro Bay/Knutson Creek Hydroelectric Project R6	-	0.15	Final Design and Permitting	Closed	Pedro Bay	37	S	\$ 290,000
Bristol Bay	Rd3	409026	7030007	Wind	City of Pilot Point	Pilot Point Wind Power & Heat R3 - Closed	9,997	0.20	Construction	Operational	Pilot Point	37	S	\$ 1,421,240
Bristol Bay	Rd6	407098	7060908	Hydroelectric	Iliamna, Newhalen, Nondalton Electrical Coop.	Tazimina Hydroelectric Project Capacity Inc-Closed	39,988	0.80	Final Design and Permitting	Operational	Port Alsworth	37	S	\$ 160,000
Bristol Bay	Rd5	403056	7050858	Heat Recovery	City of Togiak	Togiak Waste Heat Recovery Project	39,507	-	Construction	Operational	Togiak	37	S	\$ 443,030
Bristol Bay	Rd13	407111	7013001	Hydroelectric	Nushagak Electric & Telephone Cooperative	Nuyakuk River Hydro Conceptual Design	-	-	Feasibility and Conceptual Design	Closed	Dillingham	37	S	\$ 1,000,000
Bristol Bay	Rd13	407114	7013005	Wind	Naknek Electric Association, Inc.	Naknek Service Area Wind & Solar Power Feasibility & Conceptual Design	-	-	Feasibility and Conceptual Design	Development	Naknek	37	S	\$ 103,500
Bristol Bay	Rd14	407122	7014001	Hydroelectric	Nushagak Electric & Telephone Cooperative	Nuyakuk River Hydroelectric Project	-	-	Feasibility and Conceptual Design	Closed	Dillingham	37	S	\$ 1,000,000



ALASKA ENERGY AUTHORITY RENEWABLE ENERGY FUND PROJECTS

*Projects highlighted in blue denote those projects currently in development. Nameplate capacity, energy production, energy displacement are to be determined.



Energy Region	REF Round	Project No.	Grant No.	Technology	Grantee	AEA Project Name	Avg. Annual Diesel / Diesel Equivalent Displacement Est. (gal)	Nameplate Capacity (MW)	REF Project Phase(s)	Status	Community Name	House District (2022)	Senate District (2022)	REF Budget
Bristol Bay	Rd14	410114	7014025	Storage	City of Pilot Point	Pilot Point Comprehensive Community Wind/Solar/Storage & Heat Project	-	-	Construction	Development	Pilot Point	37	S	\$ 423,500
Bristol Bay	Rd15	405004	7015022	Storage	Naknek Electric Association, Inc.	Naknek Electric Battery Energy Storage System	-	-	Final Design and Permitting; Construction	Development	Naknek	37	S	\$ 2,172,984
Bristol Bay	Rd16	411018	7016013	Solar	Igiugig Village Council	Igiugig Tribal Utility Solar PV	-	-	Final Design and Permitting; Construction	Development	Igiugig	37	S	\$ 1,723,709
Bristol Bay Total							223,977	1.42						\$ 17,590,323
Copper River/Chugach														
Copper River/Chugach	Rd3	407071	7030010	Hydroelectric	Chenega IRA Council	Chenega Bay Hydro Design and Permitting - Closed	-	-	Feasibility and Conceptual Design; Final Design and Permitting	Closed	Chenega Bay	5	C	\$ 242,231
Copper River/Chugach	Rd7	410096	7071027	Wind	Alaska Power Company	Chisana Mountain Wind Feasibility - Closed	-	-	Feasibility and Conceptual Design	Closed	Chisana	36	R	\$ 67,364
Copper River/Chugach	Rd1	402028	2195380	Biomass	Cheesh'na Tribal Council	Chistochina Central Wood Heating Construction-Cld	13,600	-	Construction	Operational	Chistochina	36	R	\$ 500,000
Copper River/Chugach	Rd2; 4	407058	2195456; 7040012; 7091226	Hydroelectric	Chitina Electric, Inc.	Fivemile Creek Hydroelectric Project R2,R4	-	-	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Development	Chitina	36	R	\$ 4,095,661
Copper River/Chugach	Rd1	403028	7050848	Heat Recovery	Cordova Electric Cooperative	Cordova Heat Recovery Construction - CLOSED	58,666	-	Construction	Operational	Cordova	5	C	\$ 1,780,000
Copper River/Chugach	Rd1	407037	2195386	Hydroelectric	Cordova Electric Cooperative	Humpback Creek Hydroelectric Construction-Closed	233,333	1.25	Construction	Operational	Cordova	5	C	\$ 4,000,000
Copper River/Chugach	Rd3	407066	7030009	Hydroelectric	Cordova Electric Cooperative	Humpback Creek Hydro Rehabilitation R3 - Closed	Ref. Project #407037	-	Construction	Operational	Cordova	5	C	\$ 4,000,000
Copper River/Chugach	Rd4	402115	7040054	Biomass	Native Village of Eyak	Eyak Biomass Feasibility Study R4- Closed	-	-	Feasibility and Conceptual Design	Closed	Eyak	5	C	\$ 63,999
Copper River/Chugach	Rd1	402027	2195399	Biomass	Native Village of Eyak	Cordova Wood Processing Plant Construction-Closed	11,333	-	Construction	Operational	Eyak	5	C	\$ 136,760
Copper River/Chugach	Rd1	402030	2195381	Biomass	Gulkana Village Council	Gulkana Central Wood Heating Construction Closed	10,679	-	Construction	Operational	Gulkana	36	R	\$ 500,000
Copper River/Chugach	Rd1; Rd4	402019	2195302; 7040055	Biomass	Copper River School District	KennyLakeSchool Wood Fired BoilerR0,R1,R4-CLOSED	20,000	-	Final Design and Permitting; Construction	Operational	Kenny Lake	36	R	\$ 648,381
Copper River/Chugach	Rd6	402127	7060982	Biomass	Mentasta Traditional Council	Mentasta Comm. Fac Woody Biomass Space Heat-CLOSED	16,000	-	Construction	Operational	Mentasta Lake	36	R	\$ 460,000
Copper River/Chugach	Rd2	410052	2195461	Wind	Tatitlek Village IRA Council	Tatitlek High Penetration Wind Diesel- Closed	-	-	Feasibility and Conceptual Design	Closed	Tatitlek	5	C	\$ 51,974
Copper River/Chugach	Rd5	403057	7050823	Heat Recovery	Tatitlek Village IRA Council	Tatitlek Heat Recovery Project R5- CLOSED	23,493	-	Construction	Operational	Tatitlek	5	C	\$ 263,445
Copper River/Chugach	Rd8	402138	7081110	Biomass	Native Village of Tazlina	Wood Boiler for the Native Vilg of Tazlina-CLOSED	8,078	-	Construction	Operational	Tazlina	36	R	\$ 270,807
Copper River/Chugach	Rd1; Rd6; Rd7	407038	2195390; 7060930; 7071015	Hydroelectric	Copper Valley Electric Association	Allison Lake Hydro Proj Feas. & Construction-Closed	324,899	6.50	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	Valdez	29	O	\$ 10,288,009
Copper River/Chugach	Rd13	407119	7013013	Hydroelectric	Cordova Electric Cooperative, Inc.	Cordova Hydro Storage Assessment Project	-	-	Feasibility and Conceptual Design	Closed	Cordova	5	C	\$ 294,642
Copper River/Chugach	Rd15	402147	7015001	Biomass	Native Village of Kluti-Kaah	Native Village of Kluti-Kaah Wood Chip Heating Project	-	-	Construction	Development	Native Village of Kluti-Kaah	36	R	\$ 500,000
Copper River/Chugach Total							720,081	7.75						\$ 28,163,273
Kodiak														
Kodiak	Rd2; Rd4	407059	2195460; 7040013	Hydroelectric	Kodiak Electric Association	Terror Lake Hydroelectric Project- Closed	2,977,777	11.25	Construction	Operational	Kodiak Island Borough	5	C	\$ 3,976,259
Kodiak	Rd3	407068	7030011	Hydroelectric	Kodiak Electric Association	Terror Lake Unit 3 Hydro Project R3 - Closed	Ref. Project #407059	-	Feasibility and Conceptual Design; Final Design and Permitting	Closed	Kodiak Island Borough	5	C	\$ 248,160
Kodiak	Rd0	410020	2195365	Wind	Kodiak Electric Association, Inc.	Pillar Mt. Wind Ph II Assessment-Closed	Ref. Project #410082	-	Feasibility and Conceptual Design	Closed	Kodiak Island Borough	5	C	\$ -
Kodiak	Rd1	410025	2195371	Wind	Kodiak Electric Association	Pillar Mtn. Wind PH III Kodiak - Closed	Ref. Project #410082	-	Construction	Closed	Kodiak Island Borough	5	C	\$ 4,000,000
Kodiak	Rd5	410082	7050803	Wind	Kodiak Electric Association, Inc.	Pillar Mountain High Penetration Wind RD5 - Closed	1,773,333	9.00	Final Design and Permitting; Construction	Operational	Kodiak Island Borough	5	C	\$ 7,800,000
Kodiak	Rd0	407005	-	Hydroelectric	Alaska Village Electric Cooperative	Old Harbor Hydro - Closed	Ref. Project #407039	-	Feasibility and Conceptual Design	Closed	Old Harbor	5	C	\$ -
Kodiak	Rd1; Rd4	407039	2195431; 7040014	Hydroelectric	Alaska Village Electric Cooperative	Old Harbor Hydroelectric R1,R4-CLOSED	-	-	Feasibility and Conceptual Design; Final Design and Permitting	Closed	Old Harbor	5	C	\$ 462,500
Kodiak	Rd14	410110	7014005	Wind	City of Ouzinkie	Ouzinkie Wind Energy Feasibility and Conceptual Design Project	-	-	Feasibility and Conceptual Design	Development	Ouzinkie	5	C	\$ 172,600
Kodiak Total							4,751,110	20.25						\$ 16,659,519

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Lower Yukon-Kuskokwim														
Lower Yukon-Kuskokwim	Rd4	410078	7040057	Wind	Akiachak Native Community/Akiachak Ltd	Akiachak Wind Feasibility&Conceptual Design-Closed	-	-	Feasibility and Conceptual Design	Closed	Akiachak	38	S	\$ 110,000
Lower Yukon-Kuskokwim	Rd4	410065	7040002	Wind	Atmautluak Traditional Council	Atmautluak Wind Renewable Energy R4-Closed	17,112	0.20	Feasibility and Conceptual Design	Operational	Atmautluak	38	S	\$ 100,000
Lower Yukon-Kuskokwim	Rd6	403063	7060935	Heat Recovery	Atmautluak Traditional Council	Atmautluak Washeteria Heat Recovery - Closed	4,395	-	Construction	Operational	Atmautluak	38	S	\$ 350,000
Lower Yukon-Kuskokwim	Rd4	410086	7040015	Wind	TDX Power, Inc.	Bethel Renewable Energy Project - Closed	113,754	0.90	Feasibility and Conceptual Design	Operational	Bethel	38	S	\$ 197,170
Lower Yukon-Kuskokwim	Rd8	402134	7081118	Heat Recovery	Alaska Village Electric Cooperative	Bethel Heat Recovery Assess&Concept Design-CLOSED	-	-	Feasibility and Conceptual Design	Closed	Bethel	38	S	\$ 645,613
Lower Yukon-Kuskokwim	Rd1	410034	2195432	Wind	City of Bethel	Bethel Renewable Energy Project R1- Closed	Ref. Project #410086	-	Feasibility and Conceptual Design; Final Design and Permitting	Closed	Bethel	38	S	\$ 2,598,320
Lower Yukon-Kuskokwim	Rd4	410076	7040056	Wind	City of Chefornak	Chefornak Wind Feasibility R4-CLOSED	15,845	0.30	Feasibility and Conceptual Design; Final Design and Permitting	Operational	Chefornak	38	S	\$ 130,522
Lower Yukon-Kuskokwim	Rd5	410084	7050875	Wind	Alaska Village Electric Cooperative	Chevak Wind Energy Recovery RD5-CLOSED	-	-	Final Design and Permitting; Construction	Closed	Chevak	38	S	\$ 240,260
Lower Yukon-Kuskokwim	Rd7	403071	7071041	Heat Recovery	City of Chevak	Chevak Water & Vacuum Plant Heat Recovery	12,500	-	Final Design and Permitting; Construction	Operational	Chevak	38	S	\$ 558,800
Lower Yukon-Kuskokwim	Rd4	410067	7040019	Wind	Alaska Village Electric Cooperative	Eek Wind Feasibility R4-Closed	-	-	Feasibility and Conceptual Design	Closed	Eek	38	S	\$ 114,718
Lower Yukon-Kuskokwim	Rd7	403072	7071061	Heat Recovery	City of Emmonak	Emmonak Heat Recovery System-Closed	18,879	-	Final Design and Permitting; Construction	Operational	Emmonak	39	T	\$ 684,312
Lower Yukon-Kuskokwim	Rd2	410055	2195468	Wind	Alaska Village Electric Cooperative	Emmonak/Alakanuk Wind & Transmission - Closed	35,000	0.40	Final Design and Permitting; Construction	Operational	Emmonak	39	T	\$ 8,000,000
Lower Yukon-Kuskokwim	Rd1	410040	2195439	Wind	City of Hooper Bay	Hooper Bay Wind Farm Feasibility - Closed	22,301	0.30	Feasibility and Conceptual Design	Operational	Hooper Bay	39	T	\$ 60,179
Lower Yukon-Kuskokwim	Rd7	410099	7071073	Wind	Puvuruaq Power Company	Kongiganak Wind Heat Elect. Thermal Storage-Closed	25,319	-	Construction	Operational	Kongiganak	38	S	\$ 274,735
Lower Yukon-Kuskokwim	Rd1	410035	2195411	Wind	Puvuruaq Power Company	Kongiganak Wind Farm Construction - Closed	45,149	0.475	Construction	Operational	Kongiganak	38	S	\$ 1,699,792
Lower Yukon-Kuskokwim	Rd4	410068	7040020	Wind	Organized Village of Kwethluk	Kwethluk Wind Feasibility R4-Closed	48,000	0.40	Feasibility and Conceptual Design	Operational	Kwethluk	38	S	\$ 44,098
Lower Yukon-Kuskokwim	Rd1	410036	2195410	Wind	Kwigillingok Power Company	Kwigillingok Wind Farm Construction-Closed	16,342	0.475	Construction	Operational	Kwigillingok	38	S	\$ 1,600,000
Lower Yukon-Kuskokwim	Rd4	410069	7040021	Wind	Alaska Village Electric Cooperative	Marshall Wind Feasibility-Closed	-	-	Feasibility and Conceptual Design	Closed	Marshall	39	T	\$ 111,150
Lower Yukon-Kuskokwim	Rd6	403066	7060940	Heat Recovery	City of Marshall	Marshall Heat Recovery-Water Treatment Plant-Clsd	7,700	-	Final Design and Permitting; Construction	Operational	Marshall	39	T	\$ 177,702
Lower Yukon-Kuskokwim	Rd5	410083	7050870	Wind	Alaska Village Electric Cooperative	Mekoryuk Surplus Wind Energy Recovery RD5-CLOSED	8,000	-	Final Design and Permitting; Construction	Operational	Mekoryuk	38	S	\$ 264,459
Lower Yukon-Kuskokwim	Rd1	410038	2195384	Wind	Alaska Village Electric Cooperative	Mekoryuk Wind Farm Construction-Closed	12,000	0.20	Final Design and Permitting; Construction	Operational	Mekoryuk	38	S	\$ 3,155,765
Lower Yukon-Kuskokwim	Rd7	410097	7071067	Wind	Alaska Village Electric Cooperative, Inc.	Mountain Village Wind Feasibility & CDR-Closed	-	-	Feasibility and Conceptual Design	Closed	Mountain Village	39	T	\$ 95,893
Lower Yukon-Kuskokwim	Rd4	410063	7040016	Wind	City of Napaskiak	Napaskiak Wind, Power and Heat Recovery R4-Closed	-	-	Reconnaissance	Closed	Napaskiak	38	S	\$ 61,224
Lower Yukon-Kuskokwim	Rd7	403074	7071052	Heat Recovery	City of Nunam Iqua	Nunam Iqua Heat Recovery CLOSED	18,000	-	Final Design and Permitting; Construction	Operational	Nunam Iqua	39	T	\$ 450,000
Lower Yukon-Kuskokwim	Rd6	403064	7060937	Heat Recovery	Native Village of Kwinhagak	Kwinhagak Heat Recovery - Water Treatment - Closed	14,200	-	Final Design and Permitting; Construction	Operational	Quinhagak	38	S	\$ 668,350
Lower Yukon-Kuskokwim	Rd1	410037	2195383	Wind	Alaska Village Electric Cooperative	Quinhagak Wind Farm Construction-Closed	47,794	0.30	Construction	Operational	Quinhagak	38	S	\$ 3,437,322
Lower Yukon-Kuskokwim	Rd5	403059	7050844	Heat Recovery	City of Russian Mission	Russian Mission Heat Recovery System R5 - Closed	12,000	-	Final Design and Permitting; Construction	Operational	Russian Mission	39	T	\$ 552,157
Lower Yukon-Kuskokwim	Rd7	403073	7071043	Heat Recovery	City of St. Mary's	St. Mary's Heat Recovery System-Closed	15,726	-	Final Design and Permitting; Construction	Operational	Saint Mary's	39	T	\$ 735,200
Lower Yukon-Kuskokwim	Rd9	407110	7091224	Wind	Alaska Village Electric Cooperative	Mountain Village-St. Mary's Wind Interier9-CLOSED	-	-	Construction	Operational	Saint Mary's	39	T	\$ 2,042,431
Lower Yukon-Kuskokwim	Rd4	410064	7040017	Wind	Alaska Village Electric Cooperative	St. Mary's/ Pitka's Point Wind - Closed	44,986	0.90	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	Saint Mary's	39	T	\$ 4,624,094
Lower Yukon-Kuskokwim	Rd8	402137	7081143	Heat Recovery	City of Scammon Bay	Scammon Bay Community Facilities Heat Recovery-Cls	7,545	-	Final Design and Permitting	Closed	Scammon Bay	39	T	\$ 34,660
Lower Yukon-Kuskokwim	Rd5	407092	7050847	Hydroelectric	City of Scammon Bay	Scammon Bay Hydro Design & Engineering R5-Closed	82,549	0.33	Feasibility and Conceptual Design	Closed	Scammon Bay	39	T	\$ 79,637

Energy Region	REF Round	Project No.	Grant No.	Technology	Grantee	AEA Project Name	Avg. Annual Diesel / Diesel Equivalent Displacement Est. (gal)	Nameplate Capacity (MW)	REF Project Phase(s)	Status	Community Name	House District (2022)	Senate District (2022)	REF Budget
Lower Yukon-Kuskokwim	Rd4	410071	7040022	Wind	Alaska Village Electric Cooperative	Scammon Bay Wind Feasibility R4-Closed	-	-	Feasibility and Conceptual Design	Closed	Scammon Bay	39	T	\$ 142,500
Lower Yukon-Kuskokwim	Rd5	403058	7050848	Heat Recovery	Sleetmute Traditional Council	Sleetmute Heat Rec PowerPlant to WaterPlant CLOSED	1,779	-	Final Design and Permitting: Construction	Operational	Sleetmute	37	S	\$ 126,682
Lower Yukon-Kuskokwim	Rd1	410039	2195385	Wind	Alaska Village Electric Cooperative	Toksook Bay Wind Farm Expansion Construct.-Closed	9,000	0.10	Final Design and Permitting: Construction	Operational	Toksook Bay	38	S	\$ 1,037,750
Lower Yukon-Kuskokwim	Rd7	403075	7071085	Heat Recovery	Native Village of Tuntutuliak	Tuntutuliak Heat Recovery-Closed	-	-	Final Design and Permitting: Construction	Closed	Tuntutuliak	38	S	\$ 71,639
Lower Yukon-Kuskokwim	Rd2	410051	2195457	Wind	Tuntutuliak Comm Svcs Assoc	Tuntutuliak High Penetration Wind Diesel-Closed	10,440	0.475	Final Design and Permitting: Construction	Operational	Tuntutuliak	38	S	\$ 1,760,000
Lower Yukon-Kuskokwim	Rd13	407112	7013002	Wind	Alaska Village Electric Cooperative, Inc.	Goodnews Bay Wind Energy Feasibility and CDR	-	-	Feasibility and Conceptual Design	Development	Goodnews Bay	37	S	\$ 128,250
Lower Yukon-Kuskokwim	Rd13	407113	7013003	Wind	Alaska Village Electric Cooperative, Inc.	Kotlik Wind Energy Feasibility and CDR	-	-	Feasibility and Conceptual Design	Development	Kotlik	39	T	\$ 237,500
Lower Yukon-Kuskokwim	Rd13	407120	7013014	Wind	Puvuruaq Power Company	Improved Airfoil for Wind Turbines in Kongiganak	-	-	Construction	Development	Kongiganak	38	S	\$ 108,000
Lower Yukon-Kuskokwim	Rd14	410101	7014021	Wind	Akiachak Native Community Electric Company	Akiachak Wind Feasibility	-	-	Feasibility and Conceptual Design	Development	Akiachak	38	S	\$ 371,000
Lower Yukon-Kuskokwim	Rd14	410103	7014020	Wind	Puvuruaq Power Company	Kongiganak Wind Upgrade with Airfoil Blades for Turbines	-	-	Construction	Development	Kongiganak	38	S	\$ 278,716
Lower Yukon-Kuskokwim	Rd14	410106	7014016	Wind	Kwig Power Company	Kwigillingok Wind Turbine Upgrade	-	-	Construction	Development	Kwigillingok	38	S	\$ 278,716
Lower Yukon-Kuskokwim	Rd14	410111	7014004	Wind	Alaska Village Electric Cooperative, Inc.	Pilot Station Wind Energy Feasibility Study & Conceptual Design Project	-	-	Feasibility and Conceptual Design	Development	Pilot Station	39	T	\$ 229,500
Lower Yukon-Kuskokwim	Rd14	410115	7014017	Wind	Native Village of Kwinhagak	Kwinhagak Reconnaissance Study	-	-	Development	Development	Quinhagak	38	S	\$ 81,000
Lower Yukon-Kuskokwim	Rd15	405002	7015011	Storage	Naterkaq Light Plant	Cheformak Battery Installation, Integration and Commissioning	-	-	Construction	Development	Cheformak	38	S	\$ 437,000
Lower Yukon-Kuskokwim	Rd15	405003	7015013	Storage	Kipnuk Light Plant	Kipnuk Battery Installation, Integration and Commissioning	-	-	Construction	Development	Kipnuk	38	S	\$ 434,000
Lower Yukon-Kuskokwim	Rd15	410118	7015016	Wind	Alaska Village Electric Cooperative, Inc.	Kalskag Wind Feasibility and Conceptual Design	-	-	Feasibility and Conceptual Design	Development	Kalskag	37	S	\$ 267,300
Lower Yukon-Kuskokwim Total							576,222	5.43						\$ 39,888,116
Non Specified														
Non Specified	Rd4	403054	7040046	Heat Recovery	University of Fairbanks	Organic Rankine Cycle Field Testing R4	-	-	Feasibility and Conceptual Design	Closed	Statewide Projects & Studies	Various	Various	\$ 472,787
Non Specified	Rd1	407054	2195442	Hydroelectric	University of Alaska-Anch	Statewide Hydrokinetic Feasibility Study - Closed	-	-	Feasibility and Conceptual Design	Closed	Statewide Projects & Studies	Various	Various	\$ 563,101
Non Specified Total							-	-						\$ 1,035,888
North Slope														
North Slope	Rd2; Rd4	409021	2195448; 7040023	Transmission	North Slope Borough	Atkasuk Transmission Line-CLOSED	-	-	Feasibility and Conceptual Design; Final Design and Permitting	Closed	Utqiagvik	40	T	\$ 367,305
North Slope	Rd4	410073	7040025	Wind	North Slope Borough	Kaktovik Wind Diesel R4 - Closed	-	-	Feasibility and Conceptual Design	Closed	Kaktovik		T	\$ 131,859
North Slope	Rd3; Rd4	409027	7030012; 7040026	Wind	North Slope Borough	Point Hope Wind Turbine Design - Closed	-	-	Feasibility and Conceptual Design	Closed	Point Hope	40	T	\$ 124,048
North Slope	Rd3	409029	7030014	Wind	North Slope Borough	Point Lay Wind Diesel Generation Project R3-Closed	-	-	Feasibility and Conceptual Design	Closed	Point Lay	40	T	\$ 114,845
North Slope	Rd2; Rd4	403036	2195467; 7040027	Wind	North Slope Borough	Point Lay Heat Recovery Construction	100,000	-	Construction	Operational	Point Lay	40	T	\$ 390,547
North Slope	Rd3	409028	7030013	Wind	North Slope Borough	Wainwright Wind Diesel Generation Pj; R3-Closed	-	-	Feasibility and Conceptual Design	Closed	Wainwright	40	T	\$ 123,255
North Slope Total							100,000	-						\$ 1,251,859
Northwest Arctic														
Northwest Arctic	Rd1	411002	2195412	Solar	Alaska Village Electric Cooperative	Ambler Solar PV Feasibility - Closed	-	-	Feasibility and Conceptual Design	Closed	Ambler	40	T	\$ 20,122
Northwest Arctic	Rd2	403033	2195453	Heat Recovery	City of Ambler	Ambler Heat Recovery Construction - CLOSED	8,864	-	Final Design and Permitting: Construction	Operational	Ambler	40	T	\$ 434,928
Northwest Arctic	Rd3	409024	7030016	Wind	Alaska Village Electric Cooperative	Kivalina Wind-Intertie Feas Analyses&CDs R3-Closed	-	-	Feasibility and Conceptual Design	Closed	Kivalina	40	T	\$ 177,005
Northwest Arctic	Rd4	402117	7040029	Biomass	City of Kotzebue	Kotzebue Paper & Wood Waste to Energy R4-CLOSED	-	-	Feasibility and Conceptual Design	Closed	Kotzebue	40	T	\$ 66,578
Northwest Arctic	Rd2	403034	2195454	Heat Recovery	Kotzebue Electric Association	Kotzebue Electric Heat Recovery Construction	183,300	-	Final Design and Permitting: Construction	Operational	Kotzebue	40	T	\$ 915,627
Northwest Arctic	Rd1; Rd3	409022	2195427; 7030015	Wind	Kotzebue Electric Association	High Penetration Wind-Battery-Diesel R3-Closed	346,370	1.80	Final Design and Permitting: Construction	Operational	Kotzebue	40	T	\$ 8,000,000



ALASKA ENERGY AUTHORITY RENEWABLE ENERGY FUND PROJECTS
 *Projects highlighted in blue denote those projects currently in development. Nameplate capacity, energy production, energy displacement are to be determined.



Energy Region	REF Round	Project No.	Grant No.	Technology	Grantee	AEA Project Name	Avg. Annual Diesel / Diesel Equivalent Displacement Est. (gal)	Nameplate Capacity (MW)	REF Project Phase(s)	Status	Community Name	House District (2022)	Senate District (2022)	REF Budget
Northwest Arctic	Rd6	403067	7060941	Heat Recovery	City of Noorvik	Noorvik Heat Recovery - Water Treatment Plant-Clsd	18,600	-	Final Design and Permitting; Construction	Operational	Noorvik	40	T	\$ 985,805
Northwest Arctic	Rd1; Rd4; Rd5	402031	2195397; 7040028; 7050840	Biomass	Northwest Inupiat Housing Authority	Upper Kobuk River Biomass R4 - Closed	18,438	-	Reconnaissance; Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	Northwest Arctic Borough	40	T	\$ 771,667
Northwest Arctic	Rd1	407040	2195413	Hydroelectric	Alaska Village Electric Cooperative	Cosmos Hills Hydroelectric Feasibility-Closed	-	-	Feasibility and Conceptual Design; Final Design and Permitting	Closed	Northwest Arctic Borough	40	T	\$ 1,025,000
Northwest Arctic	Rd1	410042	2195377	Wind	Northwest Arctic Borough	Buckland/Deering/Noorvik Wind Farm Const-Clsd	25,987	0.30	Reconnaissance; Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	Northwest Arctic Borough	40	T	\$ 10,738,439
Northwest Arctic	Rd4	410074	7040030	Wind	Alaska Village Electric Cooperative	Selawik Hybrid Wind Diesel Syst Turbine R4-Clsd	-	-	Feasibility and Conceptual Design	Closed	Selawik	40	T	\$ 75,420
Northwest Arctic	Rd13	407118	7013011	Heat Recovery	City of Shungnak	Shungnak Heat Recovery	-	-	Final Design and Permitting; Construction	Development	Shungnak	40	T	\$ 1,303,607
Northwest Arctic	Rd13	407121	7013018	Storage	Kotzebue Electric Association	Kotzebue Community-Scale Energy Storage System	-	-	Final Design and Permitting	Development	Kotzebue	40	T	\$ 325,000
Northwest Arctic	Rd14	411009	7014007	Solar	Northwest Arctic Borough	Design and Permitting for Solar PV and Battery Storage for Ambler, Kiana, Noorvik, and Selawik	-	-	Final Design and Permitting	Development	Northwest Arctic Borough	40	T	\$ 590,000
Northwest Arctic	Rd14	410104	7014018	Solar	Kotzebue Electric Association	Kotzebue Wind to PV Transition Utilizing Existing Wind Infrastructure	-	-	Construction	Development	Kotzebue	40	T	\$ 1,900,000
Northwest Arctic	Rd14	410105	7014015	Wind	City of Kotzebue	Kotzebue Wind to Heat System	-	-	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Development	Kotzebue	40	T	\$ 702,435
Northwest Arctic	Rd15	411014	7015003	Solar	Northwest Arctic Borough	Selawik Solar PV Array	-	-	Construction	Development	Selawik	40	T	\$ 1,134,500
Northwest Arctic	Rd16	407121	7016022	Storage	Kotzebue Electric Association	Kotzebue Community Scale Energy Storage and Inertia	-	-	Construction	Development	Kotzebue	40	T	\$ 3,675,000
Northwest Arctic Total														\$ 32,841,133
Railbelt														
Railbelt	Rd1	402025	2195358	Biomass	Chena Power, LLC	Biomass-fired Organic Rankine Cycle System-Closed	7,500	-	Construction	Operational	North Pole	Various	Various	\$ 1,895,725
Railbelt	Rd4	407075	7040003	Hydroelectric	Alaska Energy Authority	Battle Creek Diversion R4 -Also SEE PJ 270011	0.3 Bcf	-	Final Design and Permitting	Operational	Railbelt Region	5,6;7,8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;26;27;28;29;30;31;32;33;34;35;36	C,D,E,F,G,H,I,J;K,L,M,N,O,P,Q;R	\$ 500,000
Railbelt	Rd1	403029	2195391	Heat Recovery	Golden Valley Electric Association	North Pole Heat Recovery Construction - Closed	34,000	-	Construction	Operational	North Pole	33	Q	\$ 817,292
Railbelt	Rd1	402032	2195430	Biomass	Municipality of Anchorage	Anch. Landfill Gas Elect Const -Biofuels-CLOSED	0.38 Bcf	7.00	Final Design and Permitting; Construction	Operational	Municipality of Anchorage	9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24	E,F,G,H,I,J;K,L	\$ 2,000,000
Railbelt	Rd4	407084	7040064	Hydroelectric	Native Village of Cantwell	Jack River Hydro Project R4 - Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Cantwell	30	O	\$ 30,000
Railbelt	Rd1	411003	2195394	Solar	Golden Valley Electric Association	McKinley Village Solar Thermal Const - Closed	-	-	Final Design and Permitting; Construction	Closed	GVEA Serving Area	30	O	\$ 190,000
Railbelt	Rd1	410022	2195465	Wind	Alaska Wind Power, LLC	Delta Junction Wind Assessment& Avian Study-Closed	-	-	Feasibility and Conceptual Design; Final Design and Permitting	Closed	GVEA Serving Area	36	R	\$ 65,412
Railbelt	Rd1	402033	2195395	Biomass	Delta/Greely School District	Delta Junction Wood Chip Heating Feasibilit-Closed	29,000	-	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	Delta Junction	36	R	\$ 2,000,000
Railbelt	Rd1	410027	2195370	Wind	Alaska Environmental Power	Delta Area Wind Turbines - Closed	0.03 Bcf	1.90	Feasibility and Conceptual Design; Final Design and Permitting	Operational	GVEA Serving Area	36	R	\$ 2,000,000
Railbelt	Rd1	407052	2195422	Hydroelectric	Alaska Green Energy	California Creek Hydro Feasibility - Closed	-	-	Feasibility and Conceptual Design	Closed	CEA Serving Area	9	E	\$ 27,300

Energy Region	REF Round	Project No.	Grant No.	Technology	Grantee	AEA Project Name	Avg. Annual Diesel / Diesel Equivalent Displacement Est. (gal)	Nameplate Capacity (MW)	REF Project Phase(s)	Status	Community Name	House District (2022)	Senate District (2022)	REF Budget	
Railbelt	Rd1	407024	2195331	Hydroelectric	Homer Electric Association, Inc.	Falls Cr Low Impact Hydro Assessment - Closed	-	-	Feasibility and Conceptual Design	Closed	HEA Serving Area	5;6;7;8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;26;27;28;29;30;31;32;33;34;35;36	C;D;E;F;G;H;I;J;K;L;M;N;O;P;Q;R	\$	50,000
Railbelt	Rd4	407082	7040063	Hydroelectric	Bering Pacific Engineering	Eska Creek Hydroelectric Project R4 - Closed	-	-	Feasibility and Conceptual Design	Closed	MEA Serving Area	25;26;27;28;29;30	M;N;O	\$	14,408
Railbelt	Rd4	407080	7040060	Hydroelectric	Eklutna, Inc.	Hunter Creek Hydroelectric Project R4 - Closed	-	-	Feasibility and Conceptual Design	Closed	MEA Serving Area	25;26;27;28;29;30	M;N;O	\$	84,000
Railbelt	Rd1	407053	2195437	Hydroelectric	University of Alaska Fairbanks	Nenana Hydrokinetic Feasibility - CLOSED	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Nenana	36	R	\$	450,000
Railbelt	Rd1; Rd2	410046	2195433	Wind	Kenai Winds, LLC	Nikiski Wind Farm Construction - Closed	-	-	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Closed	Nikiski	8	D	\$	2,103
Railbelt	Rd4	402116	7040061	Biomass	Port Graham Village Council	Port Graham Biomass Waste Heat Demo PrjR4-CLOSED	-	-	Final Design and Permitting	Closed	Port Graham	37	S	\$	58,600
Railbelt	Rd1	407026	2195335	Hydroelectric	Homer Electric Association, Inc.	Ptarmingan Lk/Ck Low Impact Hydro Assess - Closed	-	-	Feasibility and Conceptual Design	Closed	HEA Serving Area	5;6;7;8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;26;27;28;29;30;31;32;33;34;35;36	C;D;E;F;G;H;I;J;K;L;M;N;O;P;Q;R	\$	4,684
Railbelt	Rd1	407023	2195334	Hydroelectric	Homer Electric Association, Inc.	Cresent Lk/Cr Low Impact Hydro Assess - Closed	-	-	Feasibility and Conceptual Design	Closed	HEA Serving Area	5;6;7;8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;26;27;28;29;30;31;32;33;34;35;36	C;D;E;F;G;H;I;J;K;L;M;N;O;P;Q;R	\$	23,273
Railbelt	Rd1	407043	2195396	Hydroelectric	City of Whittier	Whittier Creek Hydroelectric Reconnaissance-Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Whittier	5;6;7;8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;26;27;28;29;30;31;32;33;34;35;36	C;D;E;F;G;H;I;J;K;L;M;N;O;P;Q;R	\$	39,471
Railbelt	Rd1	407025	2195333	Hydroelectric	Homer Electric Association, Inc.	Grant Lk/Cr Low Impact Hydro Assessment - Closed	-	-	Feasibility and Conceptual Design	Closed	HEA Serving Area	5;6;7;8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;26;27;28;29;30;31;32;33;34;35;36	C;D;E;F;G;H;I;J;K;L;M;N;O;P;Q;R	\$	50,000
Railbelt	Rd3	406012	7030018	Geothermal	ORNI 46 LLC	Mount Spurr Geothermal Project R3, R4-Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Railbelt Region	5;6;7;8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;26;27;28;29;30;31;32;33;34;35;36	C;D;E;F;G;H;I;J;K;L;M;N;O;P;Q;R	\$	1,993,158
Railbelt	Rd1; Rd4	407042	2195428; 7040035	Hydroelectric	Kenai Hydro, LLC	Grant Lake Hydroelectric Facility-Closed	-	-	Feasibility and Conceptual Design; Final Design and Permitting	Closed	HEA Serving Area	5;6;7;8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;26;27;28;29;30;31;32;33;34;35;36	C;D;E;F;G;H;I;J;K;L;M;N;O;P;Q;R	\$	2,000,000
Railbelt	Rd1; Rd4	410044	2195425; 7040031	Wind	Golden Valley Electric Association	EVA Creek Wind Turbine Purchase-CLOSED	0.39 Bcf	24.60	Final Design and Permitting; Construction	Operational	GVEA Serving Area	5;6;7;8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;26;27;28;29;30;31;32;33;34;35;36	C;D;E;F;G;H;I;J;K;L;M;N;O;P;Q;R	\$	3,463,200

Energy Region	REF Round	Project No.	Grant No.	Technology	Grantee	AEA Project Name	Avg. Annual Diesel / Diesel Equivalent Displacement Est. (gal)	Nameplate Capacity (MW)	REF Project Phase(s)	Status	Community Name	House District (2022)	Senate District (2022)	REF Budget
Railbelt	Rd4; Rd7	407077	7040005; 7071082	Hydroelectric	Chugach Electric Association, Inc.	StetsonCrkDiversiion/CooperLakeDamFacilities-Closed	.05 Bcf	-	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	CEA Serving Area	5;6;7;8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;26;27;28;29;30;31;32;33;34;35;36	C,D,E,F,G,H,I,J;K,L,M,N,O,P,Q;R	\$ 3,594,980
Railbelt	Rd7	406023	7071031	Heat Recovery	Cook Inlet Housing Authority	Seldovia Ground Source Heat Pump-CLOSED	7,500	-	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	Seldovia	6	C	\$ 311,753
Railbelt	Rd1	407044	2195420	Hydroelectric	Independence Power, LLC	Fourth of July Creek Hydroelectric-Closed	-	-	Reconnaissance	Closed	CEA Serving Area	5	C	\$ 20,000
Railbelt	Rd3	406011	7030017	Heat Recovery	City of Seward	AK SeaLifeCenter PH II Seawater Heat PumpR3-Closed	48,104	-	Final Design and Permitting; Construction	Operational	Seward	5	C	\$ 286,580
Railbelt	Rd9	407109	7091242	Heat Recovery	City of Seward	Heat Pump System for City of Seward R9	-	-	Final Design and Permitting; Construction	Development	Seward	5	C	\$ 725,000
Railbelt	Rd14	410102	7014029	Wind	Golden Valley Electric Association	Golden Valley Electric Association - Interior Alaska Wind Assessment	-	-	Reconnaissance; Feasibility and Conceptual Design	Development	GVEA Serving Area	31;32;33;34;35	P,Q,R	\$ 855,000
Railbelt	Rd14	407125	7014006	Hydroelectric	City of Homer	Homer Energy Recovery Project	-	-	Final Design and Permitting; Construction	Development	Homer	6	C	\$ 79,500
Railbelt	Rd14	410112	7014009	Wind	Alaska Electric & Energy Cooperative, Inc.	Inc. - Bradley Lake Bench Wind Feasibility	-	-	Feasibility and Conceptual Design	Development	HEA Serving Area	6	C	\$ 232,000
Railbelt	Rd14	411012	7014019	Solar	Native Village of Eklutna	Native Village of Eklutna - Solar PV Feasibility	-	-	Feasibility and Conceptual Design	Closed	MEA Serving Area	24	L	\$ 22,500
Railbelt	Rd14	402145	7014028	Biomass	City of Nenana	City of Nenana - Biomass Construction	44,697	-	Construction	Closed	Nenana	36	R	\$ 676,121
Railbelt	Rd14	410107	7014010	Wind	Alaska Electric & Energy Cooperative Inc.	Alaska Electric & Energy Cooperative, Inc. - East Foreland / Nikiski Wind Feasibility	-	-	Feasibility and Conceptual Design	Development	HEA Serving Area	6	C	\$ 200,000
Railbelt	Rd14	410108	7014008	Wind	Alaska Electric & Energy Cooperative, Inc.	Alaska Electric & Energy Cooperative, Inc. - Ninilchik Wind Feasibility	-	-	Feasibility and Conceptual Design	Development	HEA Serving Area	6	C	\$ 192,000
Railbelt	Rd14	410109	7014011	Wind	Alaska Electric & Energy Cooperative, Inc.	Alaska Electric & Energy Cooperative, Inc. - Caribou Hills Wind Feasibility	-	-	Feasibility and Conceptual Design	Development	HEA Serving Area	6	C	\$ 209,600
Railbelt	Rd14	411013	7014003	Solar	Point Mackenzie Solar, LLC	Point MacKenzie Solar Feasibility	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	CEA Serving Area	25;26;27;28;29;30	M,N,O	\$ 75,000
Railbelt	Rd14	407129	7014022	Hydroelectric	Chugach Electric Association, Inc.	Chugach Electric Association, Inc. On behalf of the Bradley Lake Management Committee (BPMC) - Dixon Diversion Feasibility	1.5 Bcf	-	Feasibility and Conceptual Design	Development	Railbelt Region	5;6;7;8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;26;27;28;29;30;31;32;33;34;35;36	C,D,E,F,G,H,I,J;K,L,M,N,O,P,Q;R	\$ 1,000,000
Railbelt	Rd14	402144	7014012	Biomass	Alaska Electric & Energy Cooperative, Inc.	Alaska Electric & Energy Cooperative, Inc. - KPB CPL Landfill Gas CHP Project	-	-	Final Design and Permitting	Development	HEA Serving Area	6	C	\$ 884,986
Railbelt	Rd15	404113	7015004	Wind	Cook Inlet Region Inc (CIRI) Energy, LLC	Healy Area Renewable Resource Assessment	-	-	Feasibility and Conceptual Design	Development	Railbelt Region	30	O	\$ 298,000
Railbelt	Rd15	404114	7015005	Wind	Cook Inlet Region Inc (CIRI) Energy, LLC	Beluga Area Renewable Resource Assessment	-	-	Feasibility and Conceptual Design	Development	Railbelt Region	37	S	\$ 298,000
Railbelt	Rd15	406025	7015024	Geothermal	Alaska Electric & Energy Cooperative, Inc.	Augustine Island Geothermal Feasibility and Conceptual Design	-	-	Feasibility and Conceptual Design	Development	HEA Serving Area	37	S	\$ 68,000
Railbelt	Rd15	406026	7015025	Geothermal	Alaska Electric & Energy Cooperative, Inc.	Mount Spurr Geothermal Feasibility and Conceptual Design	-	-	Feasibility and Conceptual Design	Development	HEA Serving Area	37	S	\$ 45,500
Railbelt	Rd15	410117	7015009	Wind	Matanuska Electric Association, Inc.	Railbelt Wind Feasibility Study and Conceptual Design	-	-	Feasibility and Conceptual Design	Development	MEA Serving Area	5;6;7;8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;26;27;28;29;30;31;32;33;34;35;36	C,D,E,F,G,H,I,J;K,L,M,N,O,P,Q;R	\$ 1,833,333
Railbelt	Rd15	410102	7015018	Wind	Golden Valley Electric Association	LIDAR Improvement to Interior Wind Energy Assessments	-	-	Feasibility and Conceptual Design	Development	GVEA Serving Area	36	R	\$ 250,000
Railbelt	Rd15	410120	7015021	Wind	Alaska Renewables LLC	Utility-Scale Railbelt Wind - Alaska Renewables	-	-	Final Design and Permitting	Development	Railbelt Region	30;36	O;R	\$ 1,980,807

Energy Region	REF Round	Project No.	Grant No.	Technology	Grantee	AEA Project Name	Avg. Annual Diesel / Diesel Equivalent Displacement Est. (gal)	Nameplate Capacity (MW)	REF Project Phase(s)	Status	Community Name	House District (2022)	Senate District (2022)	REF Budget
Railbelt	Rd15	410121	7015023	Wind	Alaska Electric & Energy Cooperative, Inc.	Cook Inlet Oil Platform Wind Project	-	-	Reconnaissance; Feasibility and Conceptual Design	Development	HEA Serving Area	8	D	\$ 214,000
Railbelt	Rd16	411017	7016005	Solar	Solstice Energy LLC	Kenai Peninsula Solar Farm	-	-	Final Design and Permitting; Construction	Development	HEA Serving Area	6	C	\$ 2,000,000
Railbelt	Rd16	402144	7016015	Biomass	Alaska Electric & Energy Cooperative, Inc.	KPB CPL Landfill Gas CHP Project	-	-	Construction	Development	HEA Serving Area	6	C	\$ 1,115,014
Railbelt Total							126,104	33.5						\$ 35,226,299
Southeast														
Southeast	Rd8	402131	7081113	Heat Recovery	Tlingit Haida Regional Housing Authority	Angoon Low-Income Housing Pellet Heat - Closed	11,400	-	Final Design and Permitting; Construction	Operational	Angoon	2	A	\$ 240,592
Southeast	Rd4; Rd5	407074	7040038; 7050825	Hydroelectric	Kootznوو, Inc.	Thayer lake Hydroelectric Project R4	-	-	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Development	Angoon	2	A	\$ 8,055,717
Southeast	Rd4	402114	7040042	Biomass	City of Craig	Craig Biomass Fuel Dryer Project R4 - CLOSED	1,078,000	-	Final Design and Permitting; Construction	Operational	Craig	2	A	\$ 350,000
Southeast	Rd2	407060	2195462	Hydroelectric	Alaska Power Company	Carlson Creek Hydro-Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Southcentral Alaska	5;6;7;8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;26;27;28;29;30;36	C,D;E,F;G,H;I,J;K,L,M,N,O,R	\$ 8,811
Southeast	Rd4	407015	7040043	Hydroelectric	Community of Elfin Cove Non-Profit	Elfin Cove Hydroelectric Project-Closed	-	-	Feasibility and Conceptual Design; Final Design and Permitting	Closed	Elfin Cove	2	A	\$ 346,640
Southeast	Rd1	407045	2195387	Hydroelectric	Gustavus Electric Company	Falls Creek Hydroelectric Construction-Closed	300,000	0.80	Construction	Operational	Gustavus	3	B	\$ 750,000
Southeast	Rd4	407081	7040067	Hydroelectric	Alaska Power Company	Schubee Lake Hydroelectric Project R4 - Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Haines Borough	3	B	\$ 74,191
Southeast	Rd4	407083	7040069	Hydroelectric	Haines Borough	Haines Excursion Inlet Hydro Project R4 - Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Haines Borough	3	B	\$ 78,384
Southeast	Rd1	402034	2195373	Biomass	Chilkoot Indian Association	Haines Ctrl Wood Heating Sys Constr(LIHP)-Closed	11,520	-	Final Design and Permitting; Construction	Operational	Haines Borough	3	B	\$ 188,620
Southeast	Rd1; Rd7	402036	2195372; 7071021	Biomass	Haines Borough	Haines Borough Municipal Buildings Biomass CLOSED	-	-	Reconnaissance; Feasibility and Conceptual Design; Construction	Closed	Haines Borough	3	B	\$ 409,331
Southeast	Rd4	407079	7040066	Hydroelectric	Alaska Power Company	Connelly Lake Hydroelectric Project R4-Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Haines Borough	3	B	\$ 468,000
Southeast	Rd8	402133	7081161	Biomass	Hoonah Indian Association	Hoonah Biomass District Heating Loop-Closed	53,161	-	Feasibility and Conceptual Design	Closed	Hoonah	2	A	\$ 40,000
Southeast	Rd4	403053	7040036	Heat Recovery	Inside Passage Electric Cooperative	Hoonah Heat Recovery Project R4-Closed	55,000	-	Final Design and Permitting; Construction	Operational	Hoonah	2	A	\$ 472,964
Southeast	Rd1	407070	7030019	Hydroelectric	Inside Passage Electric Cooperative	Hoonah - IPEC Hydro Project R3-Closed	Ref. Project # 407100	-	Final Design and Permitting	Closed	Hoonah	2	A	\$ 850,000
Southeast	Rd6	407100	7060922	Hydroelectric	Inside Passage Electric Cooperative	Gartina Falls Hydroelectric Project - Closed	121,477	0.455	Final Design and Permitting; Construction	Operational	Hoonah	2	A	\$ 6,694,000
Southeast	Rd8	402135	7081131	Biomass	Hydaburg City School District	Hydaburg Schools Wood Fired Boiler-CLOSED	25,500	-	Final Design and Permitting; Construction	Operational	Hydaburg	2	A	\$ 620,977
Southeast	Rd1	406008	2195359	Heat Recovery	City and Borough of Juneau	Juneau Airport Ground Source Heat Pump - Closed	37,082	-	Final Design and Permitting; Construction	Operational	Juneau	4	B	\$ 513,000
Southeast	Rd1	406009	2195393	Heat Recovery	City and Borough of Juneau	Juneau Ground Source Heat Pump Constr(Aq Ctr)-Clsd	63,200	-	Final Design and Permitting; Construction	Operational	Juneau	4	B	\$ 1,450,000
Southeast	Rd4	409030	7040039	Transmission	Alaska Electric Light & Power Company	Snettisham Trans Ln Avalanche Mitigation R4-Closed	-	-	Final Design and Permitting; Construction	Operational	Juneau	4	B	\$ 2,000,000
Southeast	Rd7	402124	7071087	Biomass	Organized Village of Kake	Kake Community Energy	35,000	-	Final Design and Permitting	Closed	Kake	2	A	\$ 175,000
Southeast	Rd1	409019	2195414	Transmission	Southeast Conference	Kake-Petersburg Intertie-Closed	-	-	Final Design and Permitting	Closed	Kake	2	A	\$ 1,538,847
Southeast	Rd7; Rd9	407104	7071025; 7091244	Hydroelectric	Inside Passage Electric Cooperative	Gunnuk Creek Hydroelectric Project	53,604	0.50	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	Kake	2	A	\$ 4,000,000
Southeast	Rd7	402129	7071037	Biomass	Ketchikan Gateway Borough	Ketchikan Gateway Borough Biomass Heating-CLOSED	111,033	-	Final Design and Permitting; Construction	Operational	Ketchikan Gateway Borough	1	A	\$ 620,000

Energy Region	REF Round	Project No.	Grant No.	Technology	Grantee	AEA Project Name	Avg. Annual Diesel / Diesel Equivalent Displacement Est. (gal)	Nameplate Capacity (MW)	REF Project Phase(s)	Status	Community Name	House District (2022)	Senate District (2022)	REF Budget
Southeast	Rd1; Rd4	407046	2195441; 7040044	Hydroelectric	Ketchikan Public Utility	Whitman Lake Hydroelectric Project-Closed (\$1.3M + \$700k REF)	1,100,000	4.60	Final Design and Permitting; Construction	Operational	Ketchikan Gateway Borough	1	A	\$ 2,000,000
Southeast	Rd4	407085	7040074	Hydroelectric	Metlakatla Indian Community	Triangle Lake Hydroelectric Project R4-Clsd	-	-	Feasibility and Conceptual Design	Closed	Metlakatla	1	A	\$ 500,000
Southeast	Rd1; Rd4	409020	7040068; 2195429	Transmission	Metlakatla Indian Community	Metlakatla-Ketchikan Intertie R1, R4	-	-	Feasibility and Conceptual Design; Final Design and Permitting	Closed	Metlakatla	1	A	\$ 2,000,000
Southeast	Rd8	402136	7081135	Heat Recovery	Metlakatla Indian Community	Lepquim Center Ground Source Heat Pump-Closed	47,200	-	Final Design and Permitting; Construction	Operational	Metlakatla	1	A	\$ 3,445,040
Southeast	Rd4	407076	7040040	Hydroelectric	City of Pelican	Pelican Hydroelectric Upgrade Project R4 - Closed	74,000	0.65	Final Design and Permitting; Construction	Operational	Pelican	2	A	\$ 1,896,836
Southeast	Rd1	409018	2195360	Transmission	Alaska Power and Telephone	North Prince of Wales Island Intertie Prj-Closed	-	-	Reconnaissance; Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	Prince of Wales Island	2	A	\$ 3,752,181
Southeast	Rd1; Rd4	407032	2195440; 7040065	Hydroelectric	Southeast Conference	Hillangaay (Reynolds Creek) Hydro Project-CLOSED	267,467	5.00	Final Design and Permitting; Construction	Operational	Prince of Wales Island	2	A	\$ 4,000,000
Southeast	Rd4	406017	7040072	Heat Recovery	City and Borough of Sitka	Sitka Wastewater Treatment Plant Feas R4 Closed	-	-	Feasibility and Conceptual Design	Closed	Sitka	2	A	\$ 16,699
Southeast	Rd4; Rd7	406016	7040071; 7071011	Heat Recovery	City and Borough of Sitka	Sitka Centennial Hall&Library Feas/HeatPump-Closed	12,200	-	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	Sitka	2	A	\$ 262,600
Southeast	Rd1	407049	2195418	Hydroelectric	City and Borough of Sitka	Takatz Lake Hydroelectric Feasibility-Closed	-	28.00	Feasibility and Conceptual Design	Closed	Sitka	2	A	\$ 2,000,000
Southeast	Rd6	407088	7060917	Hydroelectric	City and Borough of Sitka	Sitka Blue Lake Hydroelectric Project-Closed	1,255,867	9.40	Final Design and Permitting; Construction	Operational	Sitka	2	A	\$ 4,000,000
Southeast	Rd1	407048	2195400	Hydroelectric	Burro Creek Holdings, LLC	Burro Creek Hydro Feasibility Study - Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Municipality of Skagway	3	B	\$ 48,000
Southeast	Rd1	407047	2195415	Hydroelectric	City of Petersburg d.b.a	Ruth Lake Hydro Reconnaissance - Closed	-	-	Feasibility and Conceptual Design	Closed	Petersburg	2	A	\$ 155,702
Southeast	Rd8	402132	7081147	Biomass	Southeast Island School District	Southeast Island School District Wood Boilers-Clsd	63,973	-	Final Design and Permitting; Construction	Operational	Southeast Island School District	1,2	A	\$ 832,635
Southeast	Rd4	406018	7040073	Geothermal	Inside Passage Electric Cooperative	Tenakee Inlet Geothermal Resource Study R4-Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Tenakee Springs	2	A	\$ 568,730
Southeast	Rd4; Rd6	407014	7040041; 7060978	Hydroelectric	City of Tenakee Springs	Indian River Hydroelectric Project - Closed	-	0.18	Final Design and Permitting; Construction	Closed	Tenakee Springs	2	A	\$ 3,191,000
Southeast	Rd2; Rd4	402044	2195469; 7040037	Biomass	Southeast Island School District	Thorne Bay School Wood Fired Boiler-Biomass-Close	15,000	-	Final Design and Permitting; Construction	Operational	Thorne Bay	2	A	\$ 414,686
Southeast	Rd2	407057	2195455	Hydroelectric	Alaska Power and Telephone	Neck Lake Hydro Feas&Const Design R2&R3-Closed	-	-	Feasibility and Conceptual Design	Closed	Whale Pass	1	A	\$ 22,475
Southeast	Rd4	407086	7040070	Hydroelectric	City and Borough of Wrangell	Wrangell Electric Vehicle Feasibility Study-Closed	-	-	Reconnaissance	Closed	Wrangell	1	A	\$ 25,000
Southeast	Rd1	407055	2195423	Hydroelectric	City and Borough of Wrangell	Wrangell Hydro Based Electric Boiler Const.-Closed	66,000	-	Final Design and Permitting; Construction	Operational	Wrangell	1	A	\$ 1,862,387
Southeast	Rd1	402035	2195424	Biomass	Yakutat Power	Yakutat Biomass Feas. & District HeatingLoop-Clsd	6,000	-	Feasibility and Conceptual Design; Final Design and Permitting	Closed	Yakutat	2	A	\$ 249,600
Southeast	Rd13	407117	7013010	Hydroelectric	Inside Passage Electric Cooperative	Water Supply Creek Hydro Final Design	Ref. Project # 407117	-	Final Design and Permitting	Development	Hoonah	2	A	\$ 461,474
Southeast	Rd14	407124	7014027	Hydroelectric	Inside Passage Electric Cooperative	Jenny Creek Hydro Reconnaissance - Kake IPEC	-	-	Reconnaissance	Closed	Kake	2	A	\$ 62,368
Southeast	Rd15	403077	7015026	Heat Recovery	Yakutat Community Health Center	Yakutat Community Health Center Heat Recovery Project	-	-	Final Design and Permitting; Construction	Development	Yakutat	2	A	\$ 1,000,000
Southeast	Rd15	407117	7015028	Hydroelectric	Inside Passage Electric Cooperative	Water Supply Creek Hydro Construction	-	-	Construction	Development	Hoonah	2	A	\$ 3,538,526
Southeast Total							4,769,522	27.41						\$ 66,251,014
Yukon-Koyukuk/Upper Tanana														
Yukon-Koyukuk/Upper Tanana	Rd2	402041	2195451	Biomass	Chalkyitsik Village Council	Chalkyitsik Biomass Central Heating CDR - Closed	40,750	-	Feasibility and Conceptual Design	Closed	Chalkyitsik	36	R	\$ 32,500
Yukon-Koyukuk/Upper Tanana	Rd6	411008	7060915	Solar	Alaska Power Company	Eagle Solar Array Project R6-Closed	2,632	0.024	Construction	Operational	Eagle	36	R	\$ 118,013
Yukon-Koyukuk/Upper Tanana	Rd1	402040	2195405	Biomass	Gwitchyaa Zhee Utility Company	Fort Yukon Central Wood Heating Design-Closed	Ref. Project # 402047	-	Feasibility and Conceptual Design; Final Design and Permitting	Closed	Fort Yukon	36	R	\$ 210,000
Yukon-Koyukuk/Upper Tanana	Rd3	402047	7030021	Biomass	Gwitchyaa Zhee Utility Company	District Wood Heating in Fort Yukon R3 - Closed	100,000	-	Construction	Operational	Fort Yukon	36	R	\$ 2,318,255
Yukon-Koyukuk/Upper Tanana	Rd4	402112	7040047	Biomass	Louden Tribal Council	Louden Tribal Council RE Feasibility Study - Closed	-	-	Feasibility and Conceptual Design	Closed	Galena	36	R	\$ 89,628

Energy Region	REF Round	Project No.	Grant No.	Technology	Grantee	AEA Project Name	Avg. Annual Diesel / Diesel Equivalent Displacement Est. (gal)	Nameplate Capacity (MW)	REF Project Phase(s)	Status	Community Name	House District (2022)	Senate District (2022)	REF Budget	
Yukon-Koyukuk/Upper Tanana	Rd6; Rd7	402125	7060927; 7071047	Biomass	City of Galena	Galena Community Wood Heat Project-CLOSED	203,850	-	Final Design and Permitting; Construction	Operational	Galena	36	R	\$ 3,414,688	
Yukon-Koyukuk/Upper Tanana	Rd5	402119	7050821	Biomass	Huslia Traditional Council	Huslia Water System & Clinic Wood Boiler - Closed	23,000	-	Reconnaissance; Feasibility and Conceptual Design	Operational	Huslia	36	R	\$ 49,843	
Yukon-Koyukuk/Upper Tanana	Rd2	402045	2195474	Biomass	Yukon-Koyukuk School District	Biomass Hydronic Heating-Yukon Koyukuk Schl Closed	-	-	Feasibility and Conceptual Design	Closed	Kaltag	36	R	\$ 12,710	
Yukon-Koyukuk/Upper Tanana	Rd6	402126	7060933	Biomass	Interior Regional Housing Authority	Biomass Feas. Studies Public Fac. Interior- Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Interior Alaska	Various	Various	\$ 102,432	
Yukon-Koyukuk/Upper Tanana	Rd4; Rd6	402049	7040045; 7060925	Biomass	Alaska Power and Telephone	Upper Tanana Biomass CHP Project R4, R6-CLOSED	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Tok	Various	Various	\$ 362,883	
Yukon-Koyukuk/Upper Tanana	Rd4; Rd5	402113	7040048; 7050820	Biomass	Interior Regional Housing Authority	Feasibility Assess. Wood Heating Interior AK-Clsd	30,000	-	Reconnaissance; Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	Hughes; Anvik; Koyukuk	Various	Various	\$ 1,313,382	
Yukon-Koyukuk/Upper Tanana	Rd4	411006	7040049	Solar	Alaska Village Electric Cooperative	Kaltag Solar Construction - Closed	425	0.010	Final Design and Permitting; Construction	Operational	Kaltag	36	R	\$ 90,000	
Yukon-Koyukuk/Upper Tanana	Rd1	406006	2195421	Geothermal	TDX Power, Inc.	Manley Hot Springs Geothermal Plant - Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Manley Hot Springs	36	R	\$ 27,876	
Yukon-Koyukuk/Upper Tanana	Rd2	402043	2195459	Biomass	McGrath Traditional Council	McGrath Biomass Feasibility-Biomass-Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	McGrath	36	R	\$ 25,736	
Yukon-Koyukuk/Upper Tanana	Rd1	402039	2195403	Biomass	McGrath Light & Power Company	McGrath Central Wood Heating Dev Phase III-CLOSED	-	-	Final Design and Permitting	Closed	McGrath	36	R	\$ 131,719	
Yukon-Koyukuk/Upper Tanana	Rd1	403030	2195416	Heat Recovery	McGrath Light & Power Company	McGrath Heat Recovery Construction-Closed	22,975	-	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	McGrath	36	R	\$ 712,415	
Yukon-Koyukuk/Upper Tanana	Rd7	402128	7071032	Biomass	Village of Minto	Minto Community Buildings Biomass Project-Closed	11,400	-	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	Minto	36	R	\$ 274,800	
Yukon-Koyukuk/Upper Tanana	Rd1	407050	2195402	Hydroelectric	Yukon River Inter-Tribal	Ruby Hydrokinetic Construction - Closed	-	0.025	Reconnaissance; Feasibility and Conceptual Design; Final Design and Permitting; Construction	Closed	Ruby	36	R	\$ 189,335	
Yukon-Koyukuk/Upper Tanana	Rd5	402118	7050881	Biomass	Native Village of Tanacross dba Tanacross Village	Tanacross Woody Biomass Comm. Space Heating-Clsd	18,000	-	Final Design and Permitting; Construction	Operational	Tanacross	36	R	\$ 420,000	
Yukon-Koyukuk/Upper Tanana	Rd3	402048	7030022	Biomass	City of Tanana	City Tribe Biomass Energy Conservation R3-Closed	60,000	-	Construction	Operational	Tanana	36	R	\$ 412,641	
Yukon-Koyukuk/Upper Tanana	Rd2	410057	2195476	Wind	Alaska Power and Telephone	Tok Wind Resource Assessment-Closed	-	-	Reconnaissance	Closed	Tok	36	R	\$ 52,232	
Yukon-Koyukuk/Upper Tanana	Rd1	402038	2195417	Biomass	Alaska Gateway School District	Tok Wood Heating Construction - Biomass- Closed	65,000	-	Feasibility and Conceptual Design; Final Design and Permitting; Construction	Operational	Tok	36	R	\$ 3,245,349	
Yukon-Koyukuk/Upper Tanana	Rd2	407056	2195447	Hydroelectric	Association of Village Council Presidents	Kiseralik/Chikuminuk Hydro-Closed	-	-	Reconnaissance; Feasibility and Conceptual Design	Closed	Upper Kuskokwim	37	S	\$ 229,952	
Yukon-Koyukuk/Upper Tanana	Rd2	402042	2195452	Biomass	Venetie Village Council	Venetie District Heat Conceptual Design- Closed	-	-	Feasibility and Conceptual Design	Closed	Venetie	36	R	\$ 32,500	
Yukon-Koyukuk/Upper Tanana	Rd7	403076	7071044	Heat Recovery	Village of Venetie	Venetie Clinic Heat Recovery-Closed	2,300	-	Final Design and Permitting; Construction	Operational	Venetie	36	R	\$ 197,942	
Yukon-Koyukuk/Upper Tanana	Rd13	407115	7013006	Biomass	Alaska Gateway School District	Walter Northway School Wood Chip Heating System	-	-	Construction	Development	Northway	36	R	\$ 650,000	
Yukon-Koyukuk/Upper Tanana	Rd14	411010	7014034	Solar	City of Galena	Galena Community Scale Solar PV and Battery Project	-	-	Final Design and Permitting; Construction	Development	Galena	36	R	\$ 2,000,000	
Yukon-Koyukuk/Upper Tanana	Rd14	411011	7014002	Solar	Alaska Village Electric Cooperative, Inc.	Holy Cross Solar Energy & Battery Storage Feasibility Study Project	-	-	Feasibility and Conceptual Design	Development	Holy Cross	36	R	\$ 135,000	
Yukon-Koyukuk/Upper Tanana	Rd15	411015	7015006	Solar	Tanana Chiefs Conference	Huslia Community-Scale Solar PV and Battery Project	-	-	Final Design and Permitting; Construction	Development	Huslia	36	R	\$ 2,082,000	
Yukon-Koyukuk/Upper Tanana	Rd16	411019	7016028	Solar	Tanana Chiefs Conference	Ruby Community Solar PV and Battery Storage	-	-	Final Design and Permitting; Construction	Development	Ruby	36	R	\$ 2,008,113	
Yukon-Koyukuk/Upper Tanana Total							539,582	0.03							\$ 20,941,945
															\$ 301,720,092

Energy Region	REF Round	Project No.	Grant No.	Technology	Grantee	AEA Project Name	Avg. Annual Diesel / Diesel Equivalent Displacement Est. (gal)	Nameplate Capacity (MW)	REF Project Phase(s)	Status	Community Name	House District (2022)	Senate District (2022)	REF Budget
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REF Projects - Projects by Energy Region & Status

Energy Region	Operational	Closed	Development	No. of Projects
Aleutians	10	10	3	23
Bering Straits	10	8	1	19
Bristol Bay	8	13	4	25
Copper River/Chugach	11	5	2	18
Kodiak	2	5	1	8
Lower Yukon-Kuskokwim	25	12	11	48
Non Specified	0	2	0	2
North Slope	1	5	0	6
Northwest Arctic	6	5	6	17
Railbelt	10	20	17	47
Southeast	22	22	3	47
Yukon-Koyukuk/Upper Tanana	12	13	5	30
TOTAL	117	120	53	290
Railbet, as % of total				16%

REF Projects - Nameplate Capacity (MW) & Displacement by Energy Region - Operational Projects

Energy Region	Nameplate Capacity (Megawatts)	Annual Estimated Diesel	
		Fuel / Fuel Oil Displacement (Gallons)	Annual Natural Gas Displacement (Bcf)
Aleutians	2.31	586,926	-
Bering Straits	9.40	460,478	-
Bristol Bay	1.42	223,977	-
Copper River/Chugach	7.75	720,081	-
Kodiak	20.25	4,751,110	-
Lower Yukon-Kuskokwim	5.43	576,222	-
Non Specified	0.00	-	-
North Slope	0.00	100,000	-
Northwest Arctic	2.10	601,559	-
Railbelt	33.50	126,104	1.15
Southeast	21.41	4,769,522	-
Yukon-Koyukuk/Upper Tanana	0.03	539,582	-
TOTAL	103.59	13,455,561	1.15