JANUARY 25, 2013

# ALASKA RENEWABLE ENERGY FUND STATUS REPORT





EXECUTIVE SUMMARY

#### Introduction

The Alaska Renewable Energy Fund (REF), established by the Alaska State Legislature in 2008, and extended 10 years in 2012, provides tremendous benefits to Alaskans by assisting communities across the state to reduce and stabilize their cost of energy.

Implemented by the Alaska Energy Authority (AEA), the Renewable Energy Fund provides public funding for the development of qualifying and competitively selected renewable energy projects in Alaska. The program's ultimate goal is to produce cost-effective renewable energy for heat and power to benefit Alaskans statewide. As the program matures, the quality of the proposed projects continues to rise as does the knowledge base regarding implementing renewable energy in Alaska's diverse climates, geographies and cultures.

This executive summary provides a brief update on the projects funded to date, and the performance and savings that have been achieved. A full report on the recommended projects for Round VI, more detailed status reports for all funded projects, and additional background information is available on AEA's website, www.akenergyauthority.org.

## **Round VI Recommended Projects**

Figure 1. Recommended Projects by Region

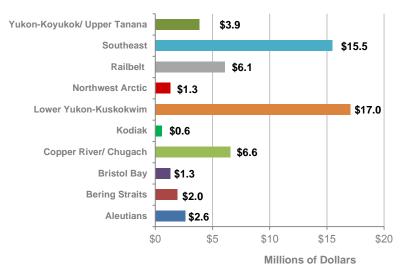
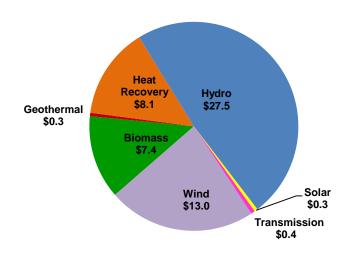


Figure 2. Recommended Projects by Resource Type



AEA recommends 60 projects out of 85 applications for Round VI funding, totaling \$56.8M. Figures 1 and 2 indicate the recommended funding by region and by energy source. The recommendation process involves four stages of review and scoring, including technical feasibility by AEA subject matter experts, an economic review by economists, and a review by the Department of Natural Resources. The ranked recommendations list and review details are provided to the Legislature for a funding determination.

Attached to this executive summary are the recommendations lists and maps of project locations. These documents and more detailed review comments, scoring, and economic reviews are available on AEA's web site.

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## **Progress: Round I - V Grants**

Table 1 provides statistics on the number of applications received, grants issued, current grant status and financial information. Of the 228 applications funded, 62% are active, 22% completed, 5% cancelled or combined with other grants, and 11% not yet issued. Of those not yet issued, 16 are awaiting grantee action and 10 are awaiting completion of a previous phase of work prior to grant issuance.

Figure 3 shows scheduled project completion by phase. The projected numbers are based on the current grant end date. Many feasibility grants lead to final design grants and construction grants in subsequent years. 95 of the 202 grants issued to date have two or more grants for different phases of the same project. The REF program encourages this multi-phased approach to ensure maximal renewable energy generation per dollar of public funds invested. By using a small amount of money to thoroughly assess the feasibility of a project prior to spending more on final design and construction, AEA is better able to ensure that projects reaching the construction phase are successful and cost effective. Many of the grants already in place are providing a pipeline for successful construction projects in the future.

Figure 3. Scheduled Grant Completion, RE Fund Rounds I-V Based on current grant end date

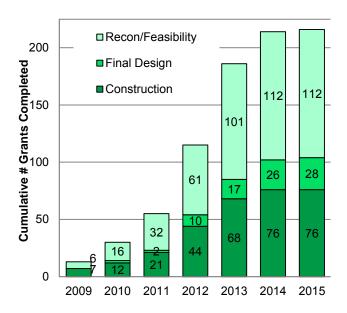


Table 1. Renewable Energy Fund Grant and Funding Summary, as of January 22, 2013

	Round I	Round II	Round III	Round IV	Round V	Round VI	Totals
Applications Received	115	118	123	108	97	85	646
Applications Funded	80 <sup>1</sup>	30	25	74	19	TBD	228
Grants Currently in Place	39	18	17	60	7	0	141
Grants Completed and Closed	36	10	3	1	0	0	50
Grants Cancelled or Combined	5	2	4	0	0	0	11
Grants Unissued to Date <sup>2</sup>	0	0	1	13	12	0	26
Amount Requested <sup>3</sup> (\$M)	\$ 453.8	\$ 293.4	\$ 223.5	\$ 123.1	\$ 132.9	\$ 122.6	\$ 1,349.3
AEA Recommended (\$M)	\$ 100.0	\$ 36.8	\$ 65.8	\$ 36.6	\$ 43.2	\$ 56.8	\$ 339.2
Appropriated (\$M)	\$ 100.0	\$ 25.0	\$ 25.0	\$ 26.6	\$ 25.9	TBD	\$ 202.5
Cash Disbursed (\$M)	\$ 64.6	\$ 18.2	\$ 11.6	\$ 12.9	\$ 7.8	0	\$ 115.1
Match Provided (\$M) <sup>4</sup>	\$ 20.7	\$ 22.6	\$ 10.5	\$ 34.6	\$ 8.2	TBD	\$ 96.6
Other Known Funding (\$M) <sup>4, 5</sup>	\$ 9.2	\$ 1.6	\$ 0.8	\$ 14.5	\$ 0	TBD	\$ 26.1

- 1. Includes eleven projects from an earlier solicitation issued by AEA.
- 2. Grants unissued are due mostly to grantee conditions requiring completion of earlier phases of work, or awaiting grantee action.
- 3. Total grant amount requested by all applicants.
- 4. These totals are for awarded grants only.
- 5. Represents only amounts recorded in the grant document and does not capture all other funding sources.

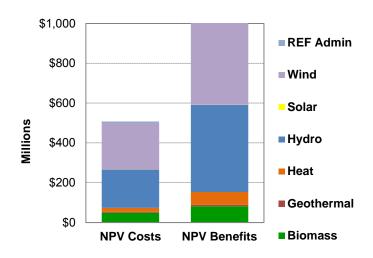
## **Performance & Savings**

An independent evaluation of the Renewable Energy Fund program identified a lifetime benefit to Alaska of just over \$1 billion achieved from a total cost of \$508M for a net benefit of \$501M. These benefits and costs are based on the actual and projected costs and benefits from the first 62 projects to be funded for construction. The State's investment in these projects was \$112M through the Renewable Energy Fund and an additional \$23M in other legislative appropriations for a total state investment of \$135M to achieve \$1.01B in benefits. Figure 4 includes all costs associated with these construction projects: state, private investment, and other funding.

Figure 5 depicts the annual fuel savings from projects that were in operation on or before September 2012 (actuals), and a projection of energy savings for

Figure 4. 2011 Construction Portfolio

Benefits and Costs Source: VEIC Impact Evaluation



the next three years. The significant jump between 2012 and 2013 results primarily from the addition of two major wind projects, Eva Creek in the Railbelt, and Pillar Mountain on Kodiak Island, which began generating power at the end of 2012, and the Anchorage Landfill Gas Waste to Energy Plant, which will begin operations January, 2013. The Anchorage landfill project is expected to generate more than 56,000 megawatt hours or 26.2 percent of Joint Base Elemendorf and Ft. Richardson's electrical load and accounts for the significant increase in projected diesel displacement in the biomass category.

Table 2 (following page) shows the Alaska Renewable Energy Fund is saving nearly 2M gallons of diesel equivalent per year for Alaska communities, with a large increase in fuel savings expected in 2013 and beyond. In-depth analysis of the performance of Renewable Energy Fund projects can be found in the *Renewable Energy Grant Recommendation*Program Impact Evaluation Report, on the AEA web site <a href="www.akenergyauthority.org">www.akenergyauthority.org</a>.



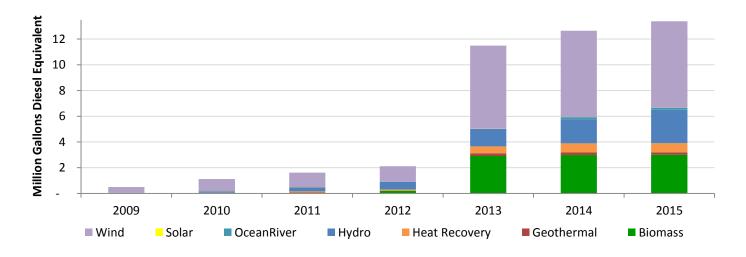


Table 2. Performance of Renewable Energy Fund projects in operation during the period 2009 – 2011 and January – September, 2012 (PRELIMINARY)

				200				201				201				ELIMINARY <b>2012</b> (Jar	n – Sep)			тот		
			Energy P	roduction	Fuel Di	splaced	Energy P	roduction	Fuel Di		Energy Pr	roduction	Fuel Dis	splaced	Energy Pr	oduction	Fuel Di	splaced	Energy P	roduction		isplaced
Grantee	Proiect Name	Operation Start Date	Electrical (MWh)	Thermal (MMBtu)	Diesel (Gal) (x1000)	Value (\$) (x1000)	Electrical (MWh)	Thermal (MMBtu)	Diesel (Gal) (x1000)	Value (\$) (x1000)	Electrical (MWh)	Thermal (MMBtu)	Diesel (Gal) (x1000)	Value (\$) (x1000)	Electrical (MWh)	Thermal (MMBtu)	Diesel (Gal) (x1000)	Value (\$) (x1000)	Electrical (MWh)	Thermal (MMBtu)	Diesel (Gal) (x1000)	Value (\$) (x1000)
Alaska Environmental Power	Delta Area Wind Turbines	Sep-10	62	-	3.1	5.0	527	-	26.3	52.1	1,641	-	95.9	256.1	925	-	57.0	120.3	3,155	-	182.3	433.5
Alaska Gateway School Dist	Tok School Wood Heating	Nov-10	-	-	-	-	-	1,418	15.0	51.0	-	3,217	24.4	92.0	-	6,124	55.2	3,311.7	-	10,759	94.6	3,454.70
Alaska Power & Telephone	North Prince of Wales Island Intertie	Sep-11	-	-	-	-	-	-	-	-	311	-	16.4	67.0	211	-	15.9	60.7	522	-	32.3	127.7
Alaska Village Electric Coop	Emmonak/Alakanuk Wind and Intertie	Sep-11	-	-	-	-	-	-	-	-	63	-	4.5	17.7	324	-	24.0	96.5	387	-	28.5	114.2
Alaska Village Electric Coop	Mekoryuk Wind	Nov-10	-	-	-	-	4	-	0.3	0.8	239	-	13.7	49.5	130	-	9.5	38.2	369	-	23.2	88.5
Alaska Village Electric Coop	Quinhagak Wind	Nov-10	-	-	-	-	72	-	5.0	14.4	409	-	28.9	105.6	315	-	22.3	96.7	796	-	56.2	216.7
Alaska Village Electric Coop	Toksook Wind <sup>2</sup>	Aug-09	-	-	-	-	135	-	9.9	44.9	560	-	37.7	129.1	412	-	30.2	124.2	976	-	68.2	298.2
Aleutian Wind Energy	Sand Point Wind	Aug-11	-	-	-	-	-	-	-	-	196	-	14.3	64.9	755	-	58.0	266.5	1,086	-	82.2	331.4
City and Borough of Juneau	Juneau Airport Grd Source Heat Pump <sup>3</sup>	May-11	-	-	-	-	-	-	-	-	-	5,117	37.1	130.5	-	5,100	37.0	130.0	-	10,217	74.1	260.5
City & Borough of Wrangell	Wrangell Hydro Based Electric Boilers	Feb-11	-	-	-	-	-	-	-	-	-	6,889	66.0	230.3	-	5,627	50.7	207.4	-	12,516	116.7	437.7
Cordova Electric Coop	Humpback Creek Hydroelectric	Jul-11	-	-	-	-	-	-	-	-	1,563	-	114.9	410.3	3,113	-	231.8	906.0	4,676	-	346.7	1,316.30
Delta/Greely School District	Delta Junction Wood Chip Heating	Sep-11	-	-	-	-	-	-	-	-	-	-	-	-	-	2,765	24.9	97.2	-	2,765	24.9	97.2
Golden Valley Electric Assoc	McKinley Village Solar Thermal	Jun-10	-	-	-	-	-	61	0.5	1.5	-	134	1.8	7.1	-	-	1.9	7.6	-	195	4.2	16.2
Golden Valley Electric Assoc	North Pole Heat Recovery	Nov-09	-	-	-	-	-	997	11.7	23.1	-	5,249	61.5	171.5	-	2,195	21.5	59.4	-	8,441	94.7	254.0
Gulkana Village Council	Gulkana Central Wood Heating	Oct-10	-	-	-	-	-	280	3.0	10.9	-	780	5.9	23.5	-	780	7.0	28.9	-	1,840	15.9	63.3
Gustavus Electric Co	Falls Creek Hydroelectric	Jul-09	797	-	54.1	154.1	1,868	-	126.6	379.9	1,933	-	138.1	483.3	1,476	-	112.4	481.8	6,074	-	431.2	1,499.1
Kodiak Electric Assoc	Pillar Mountain Wind	Sep-10	6,164	-	434.1	1,406.5	12,288	-	865.4	2,972.7	12,448	-	870.7	2,873.3	8,770	-	617.7	2,290.7	39,670	-	2,787.9	9,543.2
McGrath Light & Power	McGrath Heat Recovery	May-10	-	-	-	-	-	1,162	12.3	45.6	-	2,896	23.0	156.7	-	1,482	13.4	51.6	-	5,540	48.7	253.9
Native Village of Eyak	Cordova Wood Processing Plant	Dec-11	-	-	-	-	-	720	7.6	28.1	-	1,500	11.4	42.0	-	40	0.4	1.7	-	2,260	19.4	71.8
Nome Joint Utility Systems	Nome Banner Peak Wind Intertie	Oct- 10	279	-	7.6	58.3	1,111	-	70.2	188.8	955	-	53.9	151.6	653	-	38.9	122.2	2,998	-	170.6	520.9
Puvurnaq Power Co	Kongiganak Wind	Dec-10	-	-	-	-	-	-	-	-	88	-	6.6	30.1	124	-	10.0	45.5	212	-	16.6	75.6
Unalakleet Valley Electric Co	Unalakleet Wind	Dec-09	80	-	6.2	22.2	649	-	47.1	116.3	958	-	58.2	211.2	585	-	39.4	122.1	2,272	-	150.9	471.8
TOTAL			7,382	0	505.1	1646.1	16,654	4,638	1,200.9	3,930.0	21,364	25,782	1,684.9	5,703.3	17,793	24,113	1,479.1	8,666.9	63,193	54,533	4,870.0	19,946.4

- Started generating energy during fourth quarter 2012 (Eva Creek Wind, Golden Valley Electric Assn; Haines Central Wood Heating System, Chilkoot Indian Assoc.; Shaktoolik Wind Construction, Alaska Village Electric Cooperative; Thorne Bay School Wood Fired Boiler Project, Southeast Island School District)
- Grantee did not report performance data (Alaska Sealife Center Ph II Seawater Heat Pump Project, City of Seward; Biomass-fired Organic Rankine Cycle System, Chena Power, LLC; Juneau Ground Source Heat Pump (Dimond Aquatic Center), City and Borough of Juneau.)
- 1) The 2012 data covers the period January September only. All other years are 12 month periods. All data in this report is preliminary. The finalized version is expected in Spring, 2013.
- 2) The REF funded only 1 of 4 wind turbines in Toksook. This data represents only the portion covered by the REF grant.
- 3) 2012 performance data was not available. The table uses rounded 2011 data to approximate 2012 data.

Partial support for this report and renewable energy fund project database developed by the Institute of Social and Economic Research, University of Alaska Anchorage is from a grant from the U.S. Department of Energy, EPSCoR project DE-PS02-09ER09-12, Making Wind Work for Alaska: Supporting the Development of Sustainable, Resilient, Cost-Effective Wind-Diesel Systems for Isolated Communities to the University of Alaska.

## Alaska Renewable Energy Fund Statewide Ranking and Funding Allocation - Round 6 January 18, 2013



					Stage 2	Ben /	Cost		St	tage 3 Re	eview Sco	res (ma	ax)		Stage 3	Stage 4	l	Cost Request		De	velopment	Phase		Re	commendati	ion
										3.						State-										
					Tech			1.		Tech &	4.		6.	7.	Total	wide										
					Econ			Cost of	2.	Econ	Readi-	5.	Local	Sustan	- Stage 3	Rank					Permitting	3				
					Feas	AEA	Appl	Energy	Match	Feas	ness	Benefit	Supt	ability	Score	Post		Grant	Match	Reconn/	/Final					
Energy Region	ID Proj	ject Name	Applicant	Energy Source	Score	B/C	B/C	(35)	(15)	(20)	(5)	(15)	(5)	(5)	(100)	Stage 4	Project Cost	Requested	Offered	Feasibility	Design	Construct	Phase	Type	Funding	Cumulative
Recommended for Funding (\$25 m																										
		an River Hydroelectric Project Construction	City of Tenakee Springs DBA Tenakee Springs		80.50		1.70	30.16	9.00	16.10	3.00	11.00	5.00	5.00	79.26	1	\$3,674,000	\$2,988,000	\$332,000			\$2,988,000	Construction	Full SP	\$2,988,000	1.77.
,	O	33 7	Kokhanok Electric	Wind	74.00	5.68	9.77	35.00	5.25	14.80	4.83	12.25	2.00	3.50	77.63	2	\$190,000	\$185,000	\$5,000			\$185,000	Construction	Full	\$185,000	#0,0,0
·		gik Wind Feasibility Study	Lake and Peninsula Borough	Wind	72.67	1.42	1.26	35.00	7.50	14.53	2.00	8.50	5.00	4.50	77.03	3	\$90,000	\$80,000	\$10,000	# 00,000			Recon	Partial	\$60,000	10,-00,0
		7 X 2	INN Electric Cooperative, Inc.	Hydro	91.67		13.07	26.01	9.75	18.33	4.33	12.38	0.00	4.17	74.97	4	\$2,600,000	\$160,000	\$30,000	\$160,000	)		Feasibility	Full	\$160,000	40,000,0
			Inside Passage Electric Cooperative	Hydro	78.33		1.61	27.09	5.25	15.67	3.00	12.13	5.00	4.83	72.97	5	\$8,009,000	\$6,694,000	\$15,000	)		\$6,694,000	Construction	Full SP	\$6,694,000	Q10,007,0
. 0		, , ,	Mentasta Traditional Council	Biomass	82.00		2.08	29.38	8.25	16.40	3.00	12.63	0.00	3.00	72.65	6	\$510,000	\$460,000	\$50,000		\$88,000	,	DesignConstruction	Full SP	\$460,000	# - o jo 11 jo
		*	Southwest Region School District	Heat Recovery	89.67	4.54	4.54	27.24	5.25	17.93	4.33	12.88	0.00	4.83	72.47	7	\$548,000	\$486,000	\$62,000		\$37,000	\$449,000	DesignConstruction	Full SP	\$486,000	ψ11,000,0
		, ,	G&K Electric Utility	Heat Recovery	82.33	1.58	1.58	31.34	5.25	16.47	2.00	10.50	2.00	4.50	72.05	8	\$114,765	\$109,765	\$5,000	\$30,000			Feasibility	Partial	\$30,000	#11,000,0
V		bins Heat Recovery Project	Alaska Village Electric Cooperative, Inc.	Heat Recovery	87.33		4.28	24.35	6.00	17.47	3.17	12.75	4.00	2.83	70.57	9	\$1,341,063	\$1,319,088	\$21,975		\$120,179	\$1,198,909	- ·	Full SP	\$1,319,088	1 - 7 7-
2 . 11		ena Community Wood Heat Project	City of Galena	Biomass		3.41	4.71	24.50		16.30	3.00	12.63	5.00	2.83	70.26	10	\$2,870,635	\$2,787,719	\$82,916		\$317,788	3	DesignConstruction	Partial	\$317,788	T-=,077,0
			Pedro Bay Village Council	Hydro	47.83	2.04	2.14	35.00	5.25	9.57	2.50	11.88	4.00	2.00	70.19	11	\$3,400,000	\$290,000	\$2,500		\$290,000	)	Design	Full SP	\$290,000	
		*	City of Noorvik	Heat Recovery	78.83		2.25	27.00	6.00	15.77	3.00	10.88	2.00	4.67	69.31	12	\$985,808	\$985,805	\$29,580	)	\$74,592	\$911,213	DesignConstruction	Full SP	\$985,805	#10,5.0,0
		, and the second	Native Village of Kwinhagak	Heat Recovery	84.00	1.96	2.48	23.65	6.00	16.80	3.00	12.75	2.00	4.33	68.53	13	\$668,350	\$668,350	\$20,050	)	\$56,015	\$612,335	DesignConstruction	Full SP	\$668,350	0 \$14,644,0
Bristol Bay	911 Leve	elock Wind Reconnaissance Study	Lake and Peninsula Borough	Wind	67.00	1.17		30.63	6.00	13.40	4.67	4.50	5.00	4.00	68.19	14	\$10,000	\$10,000	\$1,000	\$10,000	)		Recon	Full	\$10,000	0 \$14,654,0
Yukon-Koyukok/Upper Tanana	915 Eagle	le Solar Array Project	Alaska Power Company (APC)	Solar	75.67	1.58	1.52	25.85	9.75	15.13	4.00	9.00	0.00	4.33	68.06	15	\$165,750	\$132,600	\$33,150	)		\$132,600	Construction	Full SP	\$132,600	0 \$14,786,6
Bering Straits	934 Savo	oonga Heat Recovery System - Power Plant to Water Plant	City of Savoonga	Heat Recovery	81.50	1.62	2.21	21.48	5.25	16.30	3.50	11.63	5.00	4.33	67.49	16	\$425,701	\$425,701	\$11,752	2		\$425,701	Construction	Full SP	\$425,701	1 \$15,212,3
Lower Yukon-Kuskokwim	940 Heat	t Recovery for the Water Treatment Plant & Community Store	City of Marshall	Heat Recovery	82.67	3.64	4.61	22.27	5.25	16.53	2.67	12.75	5.00	3.00	67.47	17	\$183,200	\$183,200	\$6,000	)	\$29,600	\$153,600	DesignConstruction	Full SP	\$183,200	0 \$15,395,5
Lower Yukon-Kuskokwim	935 Atma	autluak Washeteria Heat Recovery Project	Atmautluak Traditional Council	Heat Recovery	73.67	1.10	1.49	30.63	5.25	14.73	4.00	6.00	2.00	4.00	66.61	18	\$360,500	\$350,000	\$10,500	)		\$350,000	Construction	Full SP	\$350,000	0 \$15,745,5
Aleutians	929 Wate	erfall Creek Hydroelectric Project	City of King Cove	Hydro	80.00	2.16	2.11	11.60	12.75	16.00	3.00	12.00	5.00	5.00	65.35	19	\$4,300,000	\$2,600,000	\$1,300,000	)		\$2,600,000	Construction	Full SP	\$2,600,000	0 \$18,345,5
Southeast	917 Blue	Lake Hydroelectric Expansion Project	City & Borough of Sitka (CBS)	Hydro	92.50	2.02	2.02	4.14	14.25	18.50	5.00	13.00	5.00	5.00	64.89	20	\$145,000,000	\$4,000,000	\$4,000,000	)		\$4,000,000	Construction	Full SP	\$4,000,000	0 \$22,345,53
Yukon-Koyukok/Upper Tanana	933 Biom	mass Feasibility Studies in Public Facilities, Interior Region 1	Interior Regional Housing Authority	Biomass	76.50	1.43	1.05	28.96	0.00	15.30	2.00	9.63	5.00	1.50	62.39	21	\$168,959	\$168,959		\$168,959			Feasibility	Full	\$168,959	9 \$22,514,49
Yukon-Koyukok/Upper Tanana	925 Uppe	per Tanana Biomass CHP Project 1	Alaska Power & Telephone Company	Biomass	65.50	1.12	1.49	21.25	6.00	13.10	2.50	7.63	3.00	2.83	56.31	22	\$18,000,000	\$1,990,000	\$60,000	)	\$1,990,000	)	Design	Partial	\$400,000	0 \$22,914,4
Copper River/Chugach	930 Alliso	son Creek Project <sup>2</sup>	Copper Valley Electric Association, Inc.	Hydro	79.33	4.10	4.10	12.44	15.00	15.87	3.50	12.38	0.00	4.83	64.02	23	\$38,804,000	\$6,114,000				\$6,114,000	Construction	Full SP	\$2,085,509	9 \$25,000,0
Subtotal	Cou	int = 23															\$232,419,731	\$33,188,187	\$6,088,423	\$428,959	\$3,003,174	\$27,186,358			\$25,000,000	)
Recommended for Funding (\$50 m	nillion tota	al)																								
Copper River/Chugach	930 Alliso	son Creek Project <sup>2</sup>	Copper Valley Electric Association, Inc.	Hydro	79.33	4.10	4.10	12.44	15.00	15.87	3.50	12.38	0.00	4.83	64.02	23	\$38,804,000	\$6,114,000				\$6,114,000	Construction	Full SP	\$4,028,491	1 \$29,028,49
		ana Solar Domestic Hot Water Heating Project	City of Tanana	Solar	57.33	0.53	0.92	31.23	12.00	11.47	2.17	0.38	2.00	4.00	63.24	24	\$81,700	\$81,700	\$50,000	)		\$81,700	Construction	Full SP	\$81,700	0 \$29,110,1
Railbelt	913 Stets	son Creek Diversion/Cooper Lake Dam Facilities Project	Chugach Electric Association, Inc.	Hydro	94.00	5.23	0.58	6.23	15.00	18.80	5.00	13.00	0.00	5.00	63.03	25	\$23,808,913	\$3,453,920	\$17,343,267			\$3,453,920	Construction	Full	\$3,453,920	0 \$32,564,1
Lower Yukon-Kuskokwim	942 Heat	t Recovery for the Water Treatment Plant/Washeteria Building	Native Village of Tuntutuliak	Heat Recovery	71.50	1.22	1.57	28.44	5.25	14.30	3.00	7.13	2.00	2.17	62.28	26	\$438,585	\$425,811	\$12,774		\$41,884	\$383,927	DesignConstruction	Full SP	\$425,811	1 \$32,989,9
Bering Straits	948 Wale	es Wind Energy Feasibility and Conceptual Design Project	Alaska Village Electric Cooperative, Inc.	Wind	62.00	1.04	1.33	28.10	6.00	12.40	3.33	3.75	5.00	3.50	62.09	27	\$1,020,000	\$190,000	\$10,000	\$75,000	)		Feasibility	Partial	\$75,000	0 \$33,064,9
Lower Yukon-Kuskokwim	936 Heat	t Recovery for the Water System	City of Chuathbaluk	Heat Recovery	59.67	0.71	0.92	35.00	5.25	11.93	3.00	1.00	2.00	2.67	60.85	28	\$199,863	\$199,863	\$5,996		\$21,218	\$178,645	DesignConstruction	Full SP	\$199,863	3 \$33,264,7
Lower Yukon-Kuskokwim	945 St. M	Mary's / Pitka's Point Wind Energy Project	Alaska Village Electric Cooperative, Inc.	Wind	61.67	1.19	1.15	21.88	9.00	12.33	3.50	4.50	5.00	3.67	59.88	29	\$6,153,991	\$5,538,592	\$615,399			\$5,538,592	Construction	Full SP	\$5,538,592	2 \$38,803,3
Southeast	983 Woo	od Heat Feasibility Study and Conceptual Design for Kake	Organized Village of Kake	Biomass	60.50	0.60	0.60	27.01	9.00	12.10	2.33	1.38	5.00	3.00	59.82	30		\$30,700	\$5,000	\$30,700	)		Feasibility	Full	\$30,700	0 \$38,834,0
Southeast	916 Hyda	aburg Schools Wood Fired Boiler Project	Hydaburg City Schools	Biomass	90.00	2.85	3.93	10.34	9.00	18.00	3.00	13.00	2.00	4.00	59.34	31	\$463,216	\$20,000	\$5,200	)	\$20,000	)	Design	Full	\$20,000	. , ,
Railbelt	924 Sewa	ard Schools Biomass Heating System	Kenai Peninsula Borough School District	Biomass	89.00	5.54	6.01	8.41	6.00	17.80	3.00	12.88	5.00	4.83	57.92	32	\$1,415,234	\$1,367,464	\$47,770	)	\$100,000	\$1,267,464	DesignConstruction	Full SP	\$1,367,464	1
Kodiak	928 Bath	nymetric survey & marine geological study to refine submarine cable	City of Ouzinkie	Transmission	62.50	1.04	1.04	18.12	9.75	12.50	3.00	4.88	5.00	4.67	57.91	33	\$6,129,000	\$356,400	\$25,000	)	\$356,400	7 - 7 - 7 - 7	Design	Full SP	\$356,400	
		ana Collaborative Biomass Heating System Project	Nenana City School District	Biomass	84.17	2.02	2.79	9.81	6.00	16.83	3.00	13.13	5.00	4.00	57.77	34	\$3,006,607	\$466,890	\$19,200	)	\$466.890	)	Design	Full	\$466,890	1
Northwest Arctic		mos Hills Wind Resource and Intertie Assessment	Alaska Village Electric Cooperative, Inc.	Wind	40.00	0.64	0.65	32.38	6.00	8.00	2.00	0.38	5.00	3.67	57.42	35	\$233,000	\$221,350	\$11,650	\$40,000	# 100,010		ReconFeasibility	Partial	\$40,000	# 1.1,0 1.1,0
		lik Wind Energy Feasibility and Conceptual Design Project	Alaska Village Electric Cooperative, Inc.	Wind	59.17	1.10	0.99	25.78	6.00	11.83	1.50	3.38	5.00	3.67	57.15	36	\$3,060,000	\$142,500	\$7,500	1			Feasibility	Full	\$142,500	¥ 1-300 130
			OIT Inc.	Heat Recovery	75.33		2.15	9.81	14.25	15.07	1.83	12.50	0.00	2.83	56.29	37	\$3,258,447	\$1,629,223	\$1,629,223	9212,300	\$225.000	)	DesignConstruction	Full SP	\$225,000	T 11,==1,01
		ham Peak Wind Resource and Intertie Assessment	Alaska Village Electric Cooperative, Inc.	Wind	46.83		0.63	27.13	6.00	9.37	3.50	1.13	5,00	4.00	56.12	38	\$23,000,000	\$207,100	\$10,900	\$207,100	9223,000	,	Feasibility	Full	\$207,100	ψ11,10 <b>2</b> ,0.
		nes Borough Pellet Heating Project	Haines Borough	Biomass	85,33	1.77	2.17	9.52	6.75	17.07	3.50	12.75	2.00	3.83	55.42	30	\$517,000	\$472,000	\$45,000	9207,100	\$472,000		DesignConstruction	Full	\$472,000	T 1-300731
Lower Yukon-Kuskokwim		v .	Alaska Village Electric Cooperative, Inc.	Wind	52.17	0.92	0.86	22.75	9.00	10,43	2.67	1.13	5,00	3.50	54.48	40	\$6,202,000	\$5,581,800	\$620,200		9472,000	\$5,581,800	Construction	Full SP	\$5,581,800	ψ 12,131,1.
			AVCP Regional Housing Authority	Biomass	61.00	0.67	0.65	22.24	7.50	12.20	2.00	1.75	5.00	3.33	54.02	40	\$3,399,387	\$3,149,387	\$250,000		\$144,000	1-7 7	DesignConstruction	Full SP	\$2,286,769	917,713,20
Subtotal		int = 18	S		01.00	0.07	0.05	22.21	7.30	12.20	2.00	1.,5	5.00	5.55	5 7.02	+1	\$82,386,943		\$20,714,079		\$1,847,398		_ tognoonstruction	1 (111 ()1	\$20,971,509	11-13-1-1
Subtotal	Cou	III — 10															\$82,380,943	\$23,534,700	\$20,714,079	\$495,300	\$1,847,398	\$19,491,429			\$20,971,509	*

<sup>1</sup> Yukon-Koyukok/Upper Tanana applications #933 and #925 were moved up into the first \$25million of recommended funding to achieve Stage 4 Regional Spread <sup>2</sup> If the FY14 appropriations budget is limited to \$25M, #930 cannot be fully funded as recommended and the remaining recommended \$4,028,491 in funding is moved to the yellow <sup>3</sup> If the FY14 appropriations budget is limited to \$50M, #921 cannot be fulling funded as recommended and the remaining \$862,618 in funding is move to the peach.

## Alaska Renewable Energy Fund Statewide Ranking and Funding Allocation - Round 6 January 18, 2013



				Stage 2	Ben	/ Cost		S	itage 3 Re	eview Sc	res (max	x)		Stage 3	Stage 4		Cost Request		De	velopment	Phase		Re	commendation	ion
				Tech Econ Feas	AEA	Appl	1. Cost of Energy		3. Tech & Econ Feas	4. Readi- ness	5. Benefit		7. Sustan- ability	Total - Stage 3 Score	State- wide Rank Post		Grant	Match	Reconn/	Permitting /Final					
ant Energy Region	ID Project Name	Applicant	<b>Energy Source</b>	Score	B/C	B/C	(35)	(15)	(20)	(5)	(15)	(5)	(5)	(100)	Stage 4	Project Cost	Requested	Offered	Feasibility	Design	Construct	Phase	Type	Funding	Cumulative
Recommended for Funding (Third																									
Lower Yukon-Kuskokwim	921 AVCP RHA Wood Biomass Heating System <sup>3</sup>	AVCP Regional Housing Authority	Biomass	61.00	0.67	0.65	22.24	7.50	12.20	2.00	1.75	5.00	3.33	54.02	41	\$3,399,387	\$3,149,387	\$250,000		\$144,006	\$3,005,381	DesignConstruction	Full SP	\$862,618	\$50,862,61
Northwest Arctic	903 Northwest Arctic Borough Solar PV	Northwest Arctic Borough	Solar	74.17	1.21	1.21	18.25	0.00	14.83	5.00	5.88	5.00	5.00	53.96	42	\$75,000	\$75,000			\$75,000		DesignConstruction	Full	\$75,000	\$50,937,61
Lower Yukon-Kuskokwim	956 Goodnews Bay Wind Energy Feasibility and Conceptual Design	Alaska Village Electric Cooperative, Inc.	Wind	55.67	0.88	1.05	25.46	6.00	11.13	2.00	0.00	5.00	3.83	53.42	43	\$1,530,000	\$142,500	\$7,500	\$142,500			Feasibility	Full	\$142,500	\$51,080,11
4 Southeast	914 Connelly Lake Hydroelectric Project	Alaska Power & Telephone Company	Hydro	60.50	4.47	0.11	9.52	10.50	12.10	2.00	11.38	5.00	1.83	52.33	44	\$46,475,000	\$1,752,000	\$438,000	\$180,000			Feasibility	Partial	\$180,000	\$51,260,11
5 Bristol Bay	962 Manokotak Wind & Heat Feasibility Study	Manokotak Power Company	Wind	48.00	0.99	0.66	24.06	5.25	9.60	4.00	1.38	4.00	3.83	52.12	45	\$1,020,000	\$193,000	\$7,000	\$143,000			Feasibility	Partial	\$143,000	\$51,403,11
Bering Straits	957 Shishmaref Wind Energy Feasibility and Conceptual Design Project	Alaska Village Electric Cooperative, Inc.	Wind	54.33	0.87	1.30	25.79	6.00	10.87	1.50	0.00	5.00	2.67	51.83	46	\$2,040,000	\$142,500	\$7,500	\$142,500			Feasibility	Full	\$142,500	\$51,545,61
Lower Yukon-Kuskokwim	954 St. Mary's / Mountain Village Wind Energy Intertie Final Design	Alaska Village Electric Cooperative, Inc.	Wind	45.00	0.78	0.69	24.94	6.75	9.00	2.50	0.00	5.00	3.50	51.69	47	\$7,449,000	\$332,500	\$17,500		\$332,500		Design	Full SP	\$332,500	\$51,878,11
Southeast	904 Dimond Park Library Geothermal HVAC System	City & Borough of Juneau	Geothermal	76.17	1.68	0.60	5.29	10.50	15.23	2.50	11.13	2.00	4.50	51.15	48	\$875,000	\$700,000	\$175,000		\$300,000		DesignConstruction	Partial SP	\$300,000	\$52,178,11
9 Railbelt	975 Juniper Creek Hydroelectric Project Feasibility Study	Ram Valley LLC	Hydro	60.00	1.48	1.55	6.23	11.25	12.00	4.83	8.13	4.00	3.00	49.43	49	\$4,300,000	\$127,900	\$44,800	\$30,000			Recon	Partial SP	\$30,000	\$52,208,11
0 Southeast	909 Mahoney Lake Hydroelectric Project: Phase Ill	City of Saxman	Hydro	49.33	3.08	8.67	4.46	14.25	9.87	1.50	11.75	5.00	1.17	48.00	50	\$51,100,000	\$1,000,000	\$100,000	\$500,000			Feasibility	Partial	\$500,000	\$52,708,11
1 Railbelt	959 Ticasuk Brown School Pellet Boiler Project-Phase 2	Fairbanks North Star Borough (FNSB)	Biomass	87.17	1.80	1.80	9.81	0.00	17.43	3.17	13.00	0.00	4.50	47.91	51	\$350,000	\$350,000				\$250,000	Construction	Partial	\$250,000	\$52,958,11
2 Yukon-Koyukok/Upper Tanana	926 AGSD District Heat Loop Project	Alaska Gateway School District	Heat Recovery	42.00	0.72	1.05	21.25	6.00	8.40	2.00	1.00	5.00	4.17	47.82	52	\$2,848,939	\$2,753,364	\$95,575		\$349,621	\$2,403,743	DesignConstruction	Full SP	\$2,753,364	\$55,711,482
3 Southeast	907 Petersburg Community Heating System Retrofit Feasibility Study	City of Petersburg	Biomass	63.83	1.59		4.46		12.77	1.17	9.75	5.00	4.50	46.65	53	\$51,360	\$41,360	\$10,000	\$41,360			ReconFeasibility	Full	\$41,360	\$55,752,842
4 Lower Yukon-Kuskokwim	947 Marshall Wind Energy Design and Permitting Project	Alaska Village Electric Cooperative, Inc.	Wind	42.67	0.79	0.85	22.27	6.75	8.53	2.50	0.00	4.00	2.50	46.55	54	\$2,509,850	\$332,500	\$17,500		\$332,500		Design	Full SP	\$332,500	\$56,085,342
5 Railbelt	902 Jack River Hydroelectric Project Feasibility Study	Native Village of Cantwell	Hydro	58.00	2.43	2.43	9.81	3.00	11.60	2.00	11.75	5.00	1.67	44.82	55	\$10,000,000	\$213,750	\$11,250	\$213,750			Feasibility	Full SP	\$213,750	\$56,299,092
6 Southeast	918 West Creek Hydroelectric Project	Municipality of Skagway Borough	Hydro	42.00	1.45	1.53	9.52	11.25	8.40	1.17	8.25	5.00	1.00	44.59	56	\$140,000,000	\$236,000	\$84,000	\$236,000			Feasibility	Full	\$236,000	\$56,535,092
7 Kodiak	901 Karluk Tribal Council – Wind Energy System	Karluk Tribal Council	Wind	28.17	0.43	0.48		1	5.63	4.00	0.38	5.00	2.67	43.93	57	\$1,300,000	\$81,000	\$300	\$70,000			FeasibilityDesign	Partial	\$70,000	\$56,605,09
8 Kodiak	923 Afognak Biomass Feasibility Study	Native Village of Afognak	Biomass	57.00	3.47	3.22	8.32	0.00	11.40	0.83	11.88	5.00	3.00	40.43	58	\$1,633,974	\$170,974	#4.F0.000	\$170,974			ReconFeasibility	Full SP	\$170,974	\$56,776,06
Railbelt	979 Waste-to-Energy Feasibility Study	Chugach Electric Association, Inc.	Biofuels	45.67	1.48	1.48	6.23	10.50	9.13	0.00	8.88	0.00	3.50	38.23	59	<b>67</b> F00 000	\$550,000	\$150,000	\$40,000			Feasibility	Partial	\$40,000	\$56,816,060
0 Railbelt	977 Carlo Creek Hydroelectric Project Reconnaissance Study	Native Village of Cantwell	Hydro	39.50	0.94	4.59	9.81	6.00	7.90	2.00	1.25	5.00	3.33	35.29	60	\$7,500,000	\$66,500	\$3,500	\$30,000			Recon	Partial	\$30,000	\$56,846,066
Subtotal	Count = 19															\$284,457,510	\$12,410,235	\$1,419,425	\$1,940,084	\$1,533,627	\$5,659,124			\$6,846,066	
N. d. d. d.	046 CL 1 CL E C D	ALL VIR EL C. C. T.	C 1	-	0.66	0.62										6450,000	eror 000	ec. 000				C:	NI D I	!	<del> </del>
Northwest Arctic Aleutians	946 Shungnak Solar Energy Construction Project 961 Atka Wind Power Project	Alaska Village Electric Cooperative, Inc.  City of Atka	Solar Wind		0.66	0.63										\$650,000	\$585,000 \$140,000	\$65,000 \$50,000				Construction	NotRecomnd	!	<del>                                     </del>
Bristol Bay	910 Igiugig Wind Turbine Design	Lake and Peninsula Borough	Wind		0.52	1.21	-									\$250,000	\$205,000	\$50,000 \$45,000				ReconFeasibility	NotRecomnd NotRecomnd		<del> </del>
4 Aleutians	969 Nelson Lagoon Wind Energy Project	Nelson Lagoon Electric Cooperative	Wind		0.93	0.56	-									\$230,000	\$203,000	\$5,000				Design Design	NotRecomnd		<del></del>
5 Southeast	938 Feasibility Study and Conceptual Design of Tenakee Inlet Geothermal		Geothermal		0.38	1.06										\$27,000,000	\$3,485,000	\$5,000				Feasibility	NotRecomnd		
Lower Yukon-Kuskokwim	970 Kipnuk Wind Diesel Power Generation and Heating	Kipnuk Light Plant	Wind		0.81	1.49										\$4,067,778	\$2,567,778	\$1,500,000				DesignConstruction	NotRecomnd		+
	932 Design and Construction of Biomass Systems in Interior Villages	Interior Regional Housing Authority	Biomass		1.90	1.47										\$1,314,380	\$1,314,380	\$108,313				DesignConstruction	NotRecomnd		+
Bering Straits	951 St. Michael/Stebbins Wind Energy Final Design and Permitting Projec	· · · · · ·	Wind	1	1.64	1.76										\$5,000,000	\$332,500	\$17,500				Design	NotRecomnd		+
9 Lower Yukon-Kuskokwim	950 Russian Mission Wind Feasibility and Conceptual Design Project	Alaska Village Electric Cooperative, Inc.	Wind		0.52	0.89										\$1,530,000	\$142,500	\$7,500				Feasibility	NotRecomnd		-
Northwest Arctic	984 Noatak Wind Resource Assessment	Noatak IRA	Wind		0,98	1.53										\$2,000,000	\$181,000	,				FeasibilityDesign	NotRecomnd		<del>                                     </del>
1 Bering Straits	973 Elim Geothermal Resource Assessment I Feasibility	City of Elim	Geothermal		0.28	0.39										\$10,000,000	\$527,908					Recon	NotRecomnd		
2 Aleutians	968 False Pass Wind Energy Project	City of False Pass Electric Utility	Wind		0.64	0.30										\$190,195	\$185,195	\$5,000				Design	NotRecomnd		<u> </u>
3 Railbelt	960 TidGen <sup>TM</sup> Array Project	ORPC Alaska 2, LLC	Other		-0.01	0.01										\$8,696,494	\$2,000,000	\$6,696,494				Construction	NotRecomnd		1
4 Lower Yukon-Kuskokwim	972 Akiak Wind Resource Assessment	Akiak Native Community/ Akiak IRA Council	Wind		0.58	1.24	İ			İ						\$2,000,000	\$181,000					Feasibility	NotRecomnd		
Bristol Bay	980 Bristol Bay Borough School District Energy Project	Bristol Bay Borough School District	Solar		1.45	1.06	İ			İ						\$460,000	\$45,000	\$10,000				DesignConstruction	NotRecomnd		
Aleutians	963 Mount Makushin Geothermal Project	The Aleut Corporation	Geothermal		0.49	3.13	İ			İ				1		\$311,304,000	\$32,464,000	\$540,000				ReconFeasDesnConst	NotRecomnd		
Copper River/Chugach	971 Eastern Copper Basin Geothermal Assessment	Copper Valley Development Association	Geothermal		0.68	0.00					i					\$0	\$695,950					Recon	NotRecomnd		
3 Southeast	905 HydroPower Surplus to Stored Hydrogen Feasibility Study	The Southeast Alaska Power Agency	Other		0.15											\$244,385	\$244,385	\$5,000				Feasibility	NotRecomnd	1	
Southeast	919 Metlakatla-Ketchikan Intertie	Metlakatla Indian Community (MIC)	Transmission		1.94	1.94										\$14,510,599	\$9,570,434					DesignConstruction	NotRecomnd		
0 Southeast	974 Neck Lake Hydro Project	Alaska Power Company (APC)	Hydro	28.83	0.74	0.88										\$2,777,885	\$297,600	\$74,400				FeasibilityDesign	NotPassStage2		
1 Southeast	920 Walker Lake Hydro Feasibility Project	Tlingit-Haida Regional Electric Authority	Hydro	29.50												\$690,000	\$640,000	\$50,000				ReconFeasDesign	NotPassStage2		
Southeast	964 Excursion Inlet Hydro Project- Phase II	Haines Borough	Hydro	29.83	1.09	1.86										\$15,900,000	\$213,536	\$10,000				Feasibility	NotPassStage2		
Southeast	958 Wrangell Power Plant Upgrade	City & Borough of Wrangell	TransmissionHyd													\$117,136	\$117,136					FeasDesignConstructi	·		<u> </u>
	985 Electrical Power Lines -Western Alaska	Nuvista Light & Electric Cooperative, Inc.	TransmissionWine													\$82,000	\$82,000					Recon	NotPassStage1		<u> </u>
Southeast	906 Coffman Cove Hydropower Line Extension	City of Coffman Cove	Transmission	77.00	3.52	34.74	19.88	0.00	15.40	3.00	11.63	5.00	4.00	58.91		\$175,000	\$175,000	\$36,000				DesignConstruction	Withdrawn	,I	<u> </u>
Subtotal	Count = 25						<u> </u>		<u> </u>							\$408,959,852	\$56,610,497	\$9,225,207						,!	<u> </u>
				1			ļ	1	ļ													ļ			<b></b>
GRAND TOTAL	Count = 85			1			ļ	1	ļ							\$1,004,824,649	\$122,594,232	\$37,197,134	\$2,864,343	\$6,240,193	\$49,331,531			\$56,846,066	<b></b>
					1		1	1		1			1							İ				,	1

## Alaska Renewable Energy Fund Regional Ranking and Funding Allocation - Round 6



January 18, 2013

					Ctoro 2	Par	/ Cost Stars	2 Dourieu	Scores Image	1			Ctore 2	Stage 4		ost Boswest		D	(alanmant Bl	200		D	ommon dation	
					Stage 2	Ben /	/ Cost Stage	3 Review	Scores (max	)	_		Stage 3	Stage 4		ost Request		Dev	elopment Ph	iase		Rec	commendation	
									2					State-										
					Tech		1		Tech &	1		6 7	Total	wide										
					Econ		Cost	of 2.		adi- 5.	1.	ocal Sustan-	- Stage 3	Rank					Permitting					
					Feas	AEA							Score	Post		Grant	Match	Poconn/	/Final					
Energy Region	ID.	Draiget Name	Applicant	Enorgy Course	Score	B/C	Appl Energ			ess Bene (5) (15		Supt ability (5)	(100)		roject Cost		Offered	Reconn/ Feasibility		Construct	Dhasa	Tuno	Eunding Cu	umulati
Energy Region	טו	Project Name	Applicant	Energy Source	Score	В/С	B/C (35)	(15)	(20)	(5) (15	9)	(5) (5)	(100)	Stage 4 Pi	roject Cost	Requested	Offered	reasibility	Design	Construct	Phase	Type	Funding Cu	umulati
Aleutians	967	Cold Bay Waste Heat Recovery Project	G&K Electric Utility	Heat Recovery	82.33	1.58	1.58 31.34	5.25	16.47 2	2.00 10.5	50 ′	2.00 4.50	72.05	8	\$114,765	\$109,765	\$5,000	\$30,000			Feasibility	Partial	\$30,000	\$30
Aleutians		Waterfall Creek Hydroelectric Project	City of King Cove	Hydro	80,00	2.16	2.11 11.60			3.00 12.0		5.00 5.00	65,35	19	\$4,300,000	\$2,600,000	\$1,300,000	\$30,000		\$2,600,000	Construction	Full SP	17	\$2,630
Aleutians		Atka Wind Power Project	City of Atka	Wind	00.00							2100			# 1,000,000	\$140,000	\$50,000			#=,000,000	ReconFeasibility	Not Recomnd	#=,000,000	12,000
Aleutians	969	Nelson Lagoon Wind Energy Project	Nelson Lagoon Electric Cooperative	Wind		0.93	0.56									\$218,195	\$5,000				Design	Not Recomnd		
Aleutians	968	False Pass Wind Energy Project	City of False Pass Electric Utility	Wind		0.64	0.30								\$190,195	\$185,195	\$5,000				Design	Not Recomnd		
Aleutians	963	Mount Makushin Geothermal Project	The Aleut Corporation	Geothermal		0.49	3.13								\$311,304,000	\$32,464,000	\$540,000				ReconFeasibilityDesig	Not Recomnd		
Aleutians Total															\$315,908,960	\$35,717,155	\$1,905,000	\$30,000		\$2,600,000			\$2,630,000	
Bering Straits		Stebbins Heat Recovery Project	Alaska Village Electric Cooperative, Inc.	Heat Recovery	87.33	3.38	4.28 24.35			3.17 12.7		4.00 2.83	70.57	9	\$1,341,063	\$1,319,088	\$21,975		\$120,179	. , ,	DesignConstruction	Full SP	1 1	\$1,319,
Bering Straits		Savoonga Heat Recovery System - Power Plant to Water Plant	City of Savoonga	Heat Recovery	81.50	1.62	2.21 21.48		10.00	3.50 11.0		5.00 4.33	67.49	16	\$425,701	\$425,701	\$11,752			\$425,701	Construction	Full SP		\$1,744
Bering Straits		Wales Wind Energy Feasibility and Conceptual Design Project	Alaska Village Electric Cooperative, Inc.	Wind	62.00	1.04	1.33 28.10	6.00		3.33 3.7	-	5.00 3.50	62.09	27	\$1,020,000	\$190,000	\$10,000	,			Feasibility	Partial	1	\$1,819
Bering Straits Bering Straits		Shishmaref Wind Energy Feasibility and Conceptual Design Project St. Michael/Stebbins Wind Energy Final Design and Permitting Project	Alaska Village Electric Cooperative, Inc. Alaska Village Electric Cooperative, Inc.	Wind Wind	54.33	0.87	1.30 25.79 1.76	6.00	10.87	1.50 0.0		5.00 2.67	51.83	46	\$2,040,000 \$5,000,000	\$142,500 \$332,500	\$7,500 \$17,500	\$142,500			Feasibility Design	Full Not Recomnd	\$142,500	\$1,962
Bering Straits		Elim Geothermal Resource Assessment I Feasibility	City of Elim	Geothermal		0.28	0.39								\$10,000,000	\$532,500 \$527,908	\$17,500				Recon	Not Recomind		
Bering Straits Total	713	Emili Geothermai Resource Assessment 1 reasionity	City of Esim	Geotrermai		0.20	0.57								\$19,826,764	\$2,937,697	\$68,727	\$217,500	\$120 179	\$1,624,610		Not recomme	\$1,962,289	
Deinig Straits Total															\$17,020,704	\$2,737,077	\$00,727	\$217,500	\$120,177	ψ1,02 <del>1</del> ,010			\$1,702,207	
Bristol Bay	966	High-penetration Wind Energy Project- Kokhanok	Kokhanok Electric	Wind	74.00	5.68	9.77 35.00	5.25	14.80	1.83 12.2	25 2	2.00 3.50	77.63	2	\$190,000	\$185,000	\$5,000			\$185,000	Construction	Full	\$185,000	\$185.
Bristol Bay		Egegik Wind Feasibility Study	Lake and Peninsula Borough	Wind	72.67	1.42	1.26 35.00			2.00 8.5		5.00 4.50	77.03	3	\$90,000	\$80,000	\$10,000	\$60,000		,	Recon	Partial	\$60,000	\$245,
Bristol Bay	908	Tazimina Hydroelectric Project Capacity Increase	INN Electric Cooperative, Inc.	Hydro	91.67	10.97	13.07 26.01	9.75	18.33	1.33 12.3	38 (	0.00 4.17	74.97	4	\$2,600,000	\$160,000	\$30,000	\$160,000			Feasibility	Full	\$160,000	\$405,
Bristol Bay		New Stuyahok Heat Recovery	Southwest Region School District	Heat Recovery	89.67	4.54	4.54 27.24	5.25	17.93	1.33 12.8	88 (	0.00 4.83	72.47	7	\$548,000	\$486,000	\$62,000		\$37,000	\$449,000	DesignConstruction	Full SP	\$486,000	\$891
Bristol Bay	976	Knutson Creek Hydroelectric Project Design and Permitting	Pedro Bay Village Council	Hydro	47.83	2.04	2.14 35.00	5.25	9.57 2	2.50 11.8	88 4	4.00 2.00	70.19	11	\$3,400,000	\$290,000	\$2,500		\$290,000		Design	Full SP	\$290,000	\$1,181
Bristol Bay		Levelock Wind Reconnaissance Study	Lake and Peninsula Borough	Wind	67.00	1.17	30.63	6.00	13.40	1.67 4.5	50	5.00 4.00	68.19	14	\$10,000	\$10,000	\$1,000	\$10,000			Recon	Full	\$10,000	\$1,191
Bristol Bay		Manokotak Wind & Heat Feasibility Study	Manokotak Power Company	Wind	48.00	0.99	0.66 24.00	5.25	9.60	1.3	38 4	4.00 3.83	52.12	45	\$1,020,000	\$193,000	\$7,000	\$143,000			Feasibility	Partial	\$143,000	\$1,334,
Bristol Bay		Igiugig Wind Turbine Design	Lake and Peninsula Borough	Wind		0.52	1.21								\$250,000	\$205,000	\$45,000				Design	Not Recomnd		
Bristol Bay	980	Bristol Bay Borough School District Energy Project	Bristol Bay Borough School District	Solar		1.45	1.06								\$460,000	\$45,000	\$10,000				DesignConstruction	Not Recomnd		
Bristol Bay Total	-						<b>.</b>								\$8,568,000	\$1,654,000	\$172,500	\$373,000	\$327,000	\$634,000			\$1,334,000	
Copper River/Chugach	002	Community Facilities Woody Biomass Space Heating Project	Mentasta Traditional Council	D.	82.00	1.76	2.08 29.38	8.25	16.40	3.00 12.0	(2)	0.00 3.00	72,65		\$510,000	\$460,000	\$50,000		\$88,000	6272 000	DesignConstruction	Full SP	\$460,000	\$460
Copper River/Chugach		Allison Creek Project *	Copper Valley Electric Association, Inc.	Biomass Hydro	79.33	4.10	4.10 12.44			3.50 12.3		0.00 3.00	64.02	22	\$38,804,000	\$6,114,000	\$50,000		\$88,000	,	Construction	Full SP Full SP		\$2,545
Copper River/Chugach		Allison Creek Project *	Copper Valley Electric Association, Inc.	Hydro	79.33	4.10	4.10 12.44	_		3.50 12.3		0.00 4.83	64.02	23	\$38,804,000	\$6,114,000				\$6,114,000		Full SP	/ - /	\$6,574
Copper River/Chugach		Eastern Copper Basin Geothermal Assessment	Copper Valley Development Association	Geothermal	17.55	0.68	0.00	15.00	15.07	7.50 12.,	30 ,	4.03	04.02	2.5	\$0,004,000	\$695,950				90,114,000	Recon	Not Recomnd	91,020,171	90,571
Copper River/Chugach Total		- Copper State Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control Control	Sopper value, and a sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper value of the sopper												\$78,118,000	\$13,383,950	\$50,000		\$88,000	\$12,600,000			\$6,574,000	
, s																								
Kodiak	928	Bathymetric survey & marine geological study to refine submarine cable	City of Ouzinkie	Transmission	62.50	1.04	1.04 18.12	9.75	12.50	3.00 4.8	38	5.00 4.67	57.91	33	\$6,129,000	\$356,400	\$25,000		\$356,400		Design	Full SP	\$356,400	\$356,
Kodiak		Karluk Tribal Council - Wind Energy System	Karluk Tribal Council	Wind	28.17	0.43	0.48 26.25	0.00	5.63	1.00 0.3	38	5.00 2.67	43.93	57	\$1,300,000	\$81,000	\$300	\$70,000			FeasibilityDesign	Partial	\$70,000	\$426,
Kodiak	923	Afognak Biomass Feasibility Study	Native Village of Afognak	Biomass	57.00	3.47	3.22 8.32	0.00	11.40	).83 11.8	88	5.00 3.00	40.43	58	\$1,633,974	\$170,974		\$170,974			ReconFeasibility	Full SP	\$170,974	\$597,
Kodiak Total															\$9,062,974	\$608,374	\$25,300	\$240,974	\$356,400				\$597,374	
Lower Yukon-Kuskokwim		Heat Recovery for the Water Treatment Plant and Washeteria	Native Village of Kwinhagak	Heat Recovery	84.00	1.96	2.48 23.65	6.00	10.00	3.00 12.	75 2	2.00 4.33	68.53	13	\$668,350	\$668,350	\$20,050		\$56,015		DesignConstruction	Full SP	\$668,350	\$668,
Lower Yukon-Kuskokwim		Heat Recovery for the Water Treatment Plant & Community Store	City of Marshall	Heat Recovery	82.67	3.64	4.61 22.27		10.55	2.67 12.7	75	5.00 3.00	67.47	17	\$183,200	\$183,200	\$6,000		\$29,600	4-00,000	DesignConstruction	Full SP	\$183,200	\$851,
Lower Yukon-Kuskokwim  Lower Yukon-Kuskokwim		Atmautluak Washeteria Heat Recovery Project  Heat Recovery for the Water Treatment Plant/Washeteria Building	Atmautluak Traditional Council Native Village of Tuntutuliak	Heat Recovery Heat Recovery	73.67 71.50	1.10	1.49 30.63 1.57 28.44			4.00 6.0 3.00 7.1		2.00 4.00 2.00 2.17	66.61	18	\$360,500 \$438,585	\$350,000 \$425,811	\$10,500 \$12,774		\$41,884	,	Construction DesignConstruction	Full SP Full SP		\$1,201 \$1,627
	001		G: 5 GL 11 1 1	n	59.67	+	0.92 35.00					2.00 2.17	60.85	20	2400000	2100.072	AE 00 (		1 . ,	1,	DesignConstruction  DesignConstruction	Full SP	\$199,863	. ,
Lower Yukon-Kuskokwim  Lower Yukon-Kuskokwim		Heat Recovery for the Water System St. Mary's / Pitka's Point Wind Energy Project	City of Chuathbaluk Alaska Village Electric Cooperative, Inc.	Wind	61.67	1.19		_				5.00 3.67	59.88	20	\$199,863 \$6,153,991	\$199,863 \$5,538,592	\$5,996 \$615,399		\$21,210		Construction	Full SP		\$7,365.
Lower Yukon-Kuskokwim		Kotlik Wind Energy Feasibility and Conceptual Design Project	Alaska Village Electric Cooperative, Inc.	Wind	59.17		0.99 25.78							36	\$3,060,000	\$142,500		\$142,500		93,330,372	Feasibility	Full		\$7,508
Lower Yukon-Kuskokwim		St. Mary's / Pilot Station Wind Energy Intertie Construction Project	Alaska Village Electric Cooperative, Inc.	Wind	52.17		0.86 22.75					5.00 3.50		40	\$6,202,000	\$5,581,800	\$620,200	\$142,500		\$5.581.800	Construction	Full SP	\$5,581,800 \$	- /
Lower Yukon-Kuskokwim		AVCP RHA Wood Biomass Heating System**	AVCP Regional Housing Authority	Biomass	61.00		0.65 22.24	_		2.00 1.7			54.02	41	\$3,399,387	\$3,149,387	\$250,000			. , ,	DesignConstruction	Full SP	\$2,286,769 \$	- /
Lower Yukon-Kuskokwim		AVCP RHA Wood Biomass Heating System**	AVCP Regional Housing Authority	Biomass	61.00	0.67	0.65 22.24	7.50	12.20 2	2.00 1.7	75	5.00 3.33	54.02	41	\$3,399,387	\$3,149,387	\$250,000		\$144,006	\$3,005,381	DesignConstruction	Full SP	\$862,618 \$	\$16,239
Lower Yukon-Kuskokwim	956	Goodnews Bay Wind Energy Feasibility and Conceptual Design	Alaska Village Electric Cooperative, Inc.	Wind	55.67	0.88	1.05 25.40	6.00	11.13 2	2.00 0.0	00	5.00 3.83	53.42	43	\$1,530,000	\$142,500	\$7,500	\$142,500			Feasibility	Full	\$142,500 \$	
Lower Yukon-Kuskokwim		St. Mary's / Mountain Village Wind Energy Intertie Final Design	Alaska Village Electric Cooperative, Inc.	Wind	45.00	0.78				2.50 0.0	00	5.00 3.50	51.69	47	\$7,449,000	\$332,500	\$17,500		\$332,500		Design	Full SP	\$332,500 \$	\$16,714
Lower Yukon-Kuskokwim		Marshall Wind Energy Design and Permitting Project	Alaska Village Electric Cooperative, Inc.	Wind	42.67		0.85 22.27	6.75	8.53 2	2.50 0.0	00 4	4.00 2.50	46.55	54	\$2,509,850	\$332,500	\$17,500		\$332,500		Design	Full SP	\$332,500 \$	\$17,047
Lower Yukon-Kuskokwim		Kipnuk Wind Diesel Power Generation and Heating	Kipnuk Light Plant	Wind		0.81	1.49							$oxed{oxed}$	\$4,067,778	\$2,567,778	\$1,500,000				DesignConstruction	Not Recomnd		
Lower Yukon-Kuskokwim		Russian Mission Wind Feasibility and Conceptual Design Project	Alaska Village Electric Cooperative, Inc.	Wind		0.52							1	$\perp$	\$1,530,000	\$142,500	\$7,500				Feasibility	Not Recomnd		
Lower Yukon-Kuskokwim		Akiak Wind Resource Assessment	Akiak Native Community/ Akiak IRA Council			0.58	1.24	-					1		\$2,000,000	\$181,000					Feasibility	Not Recomnd		
Lower Yukon-Kuskokwim		Electrical Power Lines -Western Alaska	Nuvista Light & Electric Cooperative, Inc.	TransmissionWind	1	<b>_</b>	<del>                                     </del>	-	1				1	$\vdash$	\$82,000	\$82,000	02 240 410	#20F 000	04 404 500	*40.000.655	Recon	NotPassStage1	045.045.000	
Lower Yukon-Kuskokwim Tota	aı														\$43,233,891	\$23,169,668	\$3,348,419	\$285,000	\$1,101,729	\$18,809,661	1		\$17,047,003	

<sup>&</sup>lt;sup>2</sup> If the FY14 appropriations budget is limited to \$25M, #930 cannot be fully funded as recommended and the remaining recommended \$4,028,491 in funding is moved to the yellow <sup>3</sup> If the FY14 appropriations budget is limited to \$50M, #921 cannot be fulling funded as recommended and the remaining \$862,618 in funding is move to the peach.

## Alaska Renewable Energy Fund Regional Ranking and Funding Allocation - Round 6 January 18, 2013



					Stage 2	Ben / Cos	t Stage	3 Revie	w Scores (m	ax)				Stage 3	Stage 4	ıl c	ost Request		De	velopment F	hase		Rec	commendatio	n .
					Stuge 2	Deli / C03	t Stage	- S Revie	III Scores (III	ux,				Stage 3	Juge 4		ost nequest		50	l	liuse		, and	Jimiendatio	
									3.						State-										
_					Tech		1.		Tech &	4.		6.	7.		wide										
					Econ		Cost	of 2.	Econ	Readi-	5.	Local	Sustan-							Permitting					
_					Feas	AEA Ap				ness	Benefit	Supt		Score	Post		Grant	Match	Reconn/	/Final					
Count Energy Region	ID	Project Name	Applicant	Energy Source	Score	B/C B/		26		(5)	(15)	(5)	(5)		Stage 4	Project Cost	Requested	Offered	Feasibility	Design	Construct	Phase	Type	Funding	Cumulative
44 Northwest Arctic	_	Heat Recovery for the Water Treatment Plant	City of Noorvik	Heat Recovery	78,83	-/ -/	,,,,	, , , , ,	, ( - ,	3.00	10.88	2.00	4.67	69.31	12	\$985,808	\$985,805	\$29,580	i casibility	\$74.592		DesignConstruction	Full SP	\$985,805	\$985,805
45 Northwest Arctic		Cosmos Hills Wind Resource and Intertie Assessment	Alaska Village Electric Cooperative, Inc.	Wind	40.00	0.64 0.6		0.00		2.00	0.38	5.00	3.67	57 42	35	\$233,000	\$221,350	\$11,650	\$40,000	3/4,392	9911,21.	ReconFeasibility	Partial	\$40,000	\$1,025,805
46 Northwest Arctic		Hotham Peak Wind Resource and Intertie Assessment	Alaska Village Electric Cooperative, Inc.	Wind	46.83	0.56 0.6	,5 52.5	3 6.00	0.00	3.50	1.13	5.00	4.00	56.12	38	\$23,000,000	\$207,100	\$10,900	\$207,100			Feasibility	Full	\$207,100	\$1,023,005
47 Northwest Arctic		Northwest Arctic Borough Solar PV	Northwest Arctic Borough	Solar	74.17	1.21 1.2		0.00		5.00	5.88	5.00	5.00	53.96	42	\$75,000	\$75,000	910,500	\$207,100	\$75,000		DesignConstruction	Full	\$75,000	1 7 - 7 - 7
48 Northwest Arctic	946		Alaska Village Electric Cooperative, Inc.	Solar	77.17	0.66 0.6		0.00	3 14.03	5.00	5.00	5.00	5.00	33.70	72	\$650,000	\$585,000	\$65,000		\$15,000		Construction	Not Recomnd	275,000	¥1,507,500
49 Northwest Arctic	984	Noatak Wind Resource Assessment	Noatak IRA	Wind		0.98 1.5										\$2,000,000	\$181,000	)				FeasibilityDesign	Not Recomnd		i
Northwest Arctic Total																\$26,943,808	\$2,255,255	\$117,130	\$247,100	\$149,592	\$911,213	1		\$1,307,905	i
																				,					i .
50 Railbelt	913	Stetson Creek Diversion/Cooper Lake Dam Facilities Project	Chugach Electric Association, Inc.	Hydro	94.00	5.23 0.5	58 6.23	3 15.00	0 18.80	5.00	13.00	0.00	5.00	63.03	25	\$23,808,913	\$3,453,920	\$17,343,267			\$3,453,920	Construction	Full	\$3,453,920	\$3,453,920
51 Railbelt	924	Seward Schools Biomass Heating System	Kenai Peninsula Borough School District	Biomass	89.00	5.54 6.0	01 8.4	6.00	17.80	3.00	12.88	5.00	4.83	57.92	32	\$1,415,234	\$1,367,464	\$47,770	)	\$100,000	\$1,267,464	DesignConstruction	Full SP	\$1,367,464	\$4,821,384
52 Railbelt	931	Nenana Collaborative Biomass Heating System Project	Nenana City School District	Biomass	84.17	2.02 2.7	79 9.8	6.00	16.83	3.00	13.13	5.00	4.00	57.77	34	\$3,006,607	\$466,890	\$19,200		\$466,890		Design	Full	\$466,890	\$5,288,274
53 Railbelt	_	OIT Inc Waste Heat Turbine Project	OIT Inc.	Heat Recovery	75.33	2.15 2.1	15 9.8		25 15.07	1.83	12.50	0.00	2.83	56.29	37	\$3,258,447	\$1,629,223	\$1,629,223		\$225,000		DesignConstruction	Partial SP	\$225,000	\$5,513,274
54 Railbelt	_	Juniper Creek Hydroelectric Project Feasibility Study	Ram Valley LLC	Hydro	60.00	1.48 1.5	0.2.		25 12.00	4.83	8.13	4.00	3.00	49.43	49	\$4,300,000	\$127,900	\$44,800	\$30,000			Recon	Partial SP	\$30,000	1-1
55 Railbelt		Ticasuk Brown School Pellet Boiler Project-Phase 2	Fairbanks North Star Borough (FNSB)	Biomass	87.17		9.8		) 17.43	3.17	13.00	0.00	4.50	47.91	51	\$350,000	\$350,000	)			\$250,000		Partial	\$250,000	
56 Railbelt	_	Jack River Hydroelectric Project Feasibility Study	Native Village of Cantwell	Hydro	58.00	2.43 2.4	10 7.0	3.00	7 11.00	2.00	11.75	5.00	1.67	44.82	55	\$10,000,000	\$213,750	\$11,250	\$213,750			Feasibility	Full SP	\$213,750	\$6,007,024
57 Railbelt	_	Waste-to-Energy Feasibility Study	Chugach Electric Association, Inc.	Biofuels	45.67		18 6.23			0.00	8.88	0.00	3.50	38.23	59		\$550,000	\$150,000	\$40,000			Feasibility	Partial	\$40,000	\$6,047,024
58 Railbelt		Carlo Creek Hydroelectric Project Reconnaissance Study	Native Village of Cantwell	Hydro	39.50	0.94 4.5		6.00	7.90	2.00	1.25	5.00	3.33	35.29	60	\$7,500,000	\$66,500	\$3,500				Recon	Partial	\$30,000	\$6,077,024
59 Railbelt	960	TidGen <sup>TM</sup> Array Project	ORPC Alaska 2, LLC	Other		-0.01 0.0	)1									\$8,696,494	\$2,000,000	40,000,00				Construction	Not Recomnd		<del></del>
Railbelt Total																\$62,335,695	\$10,225,647	\$25,945,504	\$313,750	\$791,890	\$4,971,384			\$6,077,024	<del></del>
60 0 1	0.00		C. C. L. C. DD. F. L. C. T	** 1	00.50						44.00	# 00	F 00	E0.04		22 (51 000	***********				** ***		E H op	**********	22 000 00
60 Southeast 61 Southeast		Indian River Hydroelectric Project Construction	City of Tenakee Springs DBA Tenakee Springs F		80.50 78.33	1.57 1.7 2.26 1.0	70 30.1 51 27.0		7 10.10	3.00	12.13	5.00	5.00	79.26 72.97	1	\$3,674,000	\$2,988,000 \$6,694,000	\$332,000 \$15,000			\$2,988,000	001101111111111111111111111111111111111	Full SP Full SP	\$2,988,000	1
61 Southeast 62 Southeast		Gartina Falls Hydroelectric Project Blue Lake Hydroelectric Expansion Project	Inside Passage Electric Cooperative City & Borough of Sitka (CBS)	Hydro Hydro	92.50	2.26 1.0 2.02 2.0				5.00	12.13	5.00	4.83 5.00	64.89	20	\$8,009,000 \$145,000,000	\$6,694,000	\$15,000	1		\$6,694,000 \$4,000,000	Construction Construction	Full SP Full SP	\$6,694,000 \$4,000,000	1. , ,
63 Southeast		Wood Heat Feasibility Study and Conceptual Design for Kake	Organized Village of Kake	Biomass	60.50	0.60 0.6		1 9.00		2.33	1 38	5.00	3.00	59.82	20	\$145,000,000	\$4,000,000	\$5,000	\$30,700		34,000,000	Feasibility	Full	\$30,700	\$13,712,700
64 Southeast		Hydaburg Schools Wood Fired Boiler Project	Hydaburg City Schools	Biomass	90.00	2.85 3.9	27.10	1 7.00	J 12.10	3.00	13.00	2.00	4.00	59.34	31	\$463,216	\$20,000	\$5,000	\$30,700	\$20,000		Design	Full	\$20,000	\$13,732,700
65 Southeast		Haines Borough Pellet Heating Project	Haines Borough	Biomass	85,33	1.77 2.1	17 9.50	2 6.75	5 17.07	3.50	12.75	2.00	3.83	55.42	30	\$517,000	\$472,000	\$45,000		\$472,000		DesignConstruction	Full	\$472,000	\$13,732,700
66 Southeast		Connelly Lake Hydroelectric Project	Alaska Power & Telephone Company	Hvdro	60,50	4.47 0.1	11 9.50	2 10.50	0 12.10	2.00	11.38	5.00	1.83	52.33	44	\$46,475,000	\$1,752,000	\$438,000	\$180,000	,		Feasibility	Partial	\$180,000	1 .,
67 Southeast		Dimond Park Library Geothermal HVAC System	City & Borough of Juneau	Geothermal	76.17	1.68 0.0			0 15.23	2.50	11.13	2.00	4.50	51.15	48	\$875,000	\$700,000	\$175,000	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$300,000		DesignConstruction	Partial SP	\$300,000	\$14,684,700
68 Southeast		Mahoney Lake Hydroelectric Project: Phase Ill	City of Saxman	Hvdro	49.33	3.08 8.0	57 4.40	5 14.2.	.5 9.87	1.50	11.75	5.00	1.17	48.00	50	\$51,100,000	\$1,000,000	\$100,000	\$500,000			Feasibility	Partial	\$500,000	\$15,184,700
69 Southeast	907	Petersburg Community Heating System Retrofit Feasibility Study	City of Petersburg	Biomass	63.83	1.59	4.40	5 9.00	) 12.77	1.17	9.75	5.00	4.50	46.65	53	\$51,360	\$41,360	\$10,000	\$41,360			ReconFeasibility	Full	\$41,360	\$15,226,060
70 Southeast	918	West Creek Hydroelectric Project	Municipality of Skagway Borough	Hydro	42.00	1.45 1.5	53 9.52	2 11.2	.5 8.40	1.17	8.25	5.00	1.00	44.59	56	\$140,000,000	\$236,000	\$84,000	\$236,000			Feasibility	Full	\$236,000	\$15,462,060
71 Southeast	938	Feasibility Study and Conceptual Design of Tenakee Inlet Geothermal F	Inside Passage Electric Cooperative	Geothermal		0.38 1.0	)6									\$27,000,000	\$3,485,000	)				Feasibility	Not Recomnd		i
72 Southeast	905	HydroPower Surplus to Stored Hydrogen Feasibility Study	The Southeast Alaska Power Agency	Other		0.15										\$244,385	\$244,385	\$5,000				Feasibility	Not Recomnd		<u> </u>
73 Southeast		Metlakatla-Ketchikan Intertie	Metlakatla Indian Community (MIC)	Transmission		1.94 1.9										\$14,510,599	\$9,570,434	ŀ				DesignConstruction	Not Recomnd		<b></b>
74 Southeast		Neck Lake Hydro Project	Alaska Power Company (APC)	Hydro	28.83	0.74 0.8										\$2,777,885	\$297,600	\$74,400	)			FeasibilityDesign	NotPassStage2		<b></b>
75 Southeast		Walker Lake Hydro Feasibility Project	Tlingit-Haida Regional Electric Authority	Hydro	29.50	0.01 0.0										\$690,000	\$640,000	\$50,000			ļ	ReconFeasDesign	NotPassStage2		<b></b>
76 Southeast	_	Excursion Inlet Hydro Project- Phase II	Haines Borough	Hydro	29.83	1.09 1.8	36									\$15,900,000	\$213,536	\$10,000	)			Feasibility	NotPassStage1		<del></del>
77 Southeast		Wrangell Power Plant Upgrade	City & Borough of Wrangell	TransmissionHydro		2.72								#0		\$117,136	\$117,136				ļ	FeasDesignConstruct	NotPassStage2		<del></del>
78 Southeast	906	Coffman Cove Hydropower Line Extension	City of Coffman Cove	Transmission	77.00	3.52 34.	74 19.8	8 0.00	) 15.40	3.00	11.63	5.00	4.00	58.91		\$175,000	\$175,000	\$36,000	+000	+=00	**********	DesignConstruction	Withdrawn	*** ***	<del></del>
Southeast Total							-	-				1				\$457,579,581	\$32,677,151	\$5,384,600	\$988,060	\$792,000	\$13,682,000	1		\$15,462,060	
70 Vultan Vanukala/Haara T	027	Calona Community Wood Hoat Deci	City of Calona	Diomaga	01 50	3.41 4.7	71 245	0 6.00	16.20	3,00	12.63	5.00	202	70.26	10	\$2,870,635	\$2,787,719	\$82,916		\$217.700		Design Construction	Darrie1	\$317,788	\$317,788
79 Yukon-Koyukok/Upper Tanana 80 Yukon-Koyukok/Upper Tanana		Galena Community Wood Heat Project  Eagle Solar Array Project	City of Galena Alaska Power Company (APC)	Biomass Solar	81.50 75.67	1.58 1.5	2 110	_	7 10.50	4.00	9.00	5.00	2.83	68.06	10	\$2,870,635	\$2,/8/,/19 \$132,600	\$82,916		\$317,788	\$132,600	DesignConstruction  Construction	Partial Full SP	\$31/,/88 \$132,600	\$450,388
81 Yukon-Koyukok/Upper Tanana	_		1 1 1 1		76.50	1.38 1.3		_		2.00	9.63	5.00	4.33	62.39	15	\$165,750	\$132,600 \$168,959	\$33,130	\$168.959		\$132,600	Feasibility	Full SP Full	\$132,600 \$168,959	\$619.347
		Biomass Feasibility Studies in Public Facilities, Interior Region   CHER 1. 1	Interior Regional Housing Authority	Biomass	65.50	1.43 1.0	20.7	6 0.00 5 6.00	7 15.50	2.00	7.63	3.00	2.83	62.39 56.31	21	1 7	,	840,000	\$168,959	61 000 000		reasibility		,	,
82 Yukon-Koyukok/Upper Tanana 83 Yukon-Koyukok/Upper Tanana	_	Upper Tanana Biomass CHP Project <sup>1</sup> Tanana Solar Domestic Hot Water Heating Project	Alaska Power & Telephone Company City of Tanana	Biomass Solar	57.33	0.53 0.9	.,	0.00	7 15.10	2.50	0.38	2.00	4.00	63.24	22	\$18,000,000 \$81,700	\$1,990,000 \$81,700	\$60,000 \$50,000		\$1,990,000	\$81.700	Construction	Partial Full SP	\$400,000 \$81,700	\$1,019,34° \$1,101,04°
83 Yukon-Koyukok/Upper Tanana 84 Yukon-Koyukok/Upper Tanana	_	AGSD District Heat Loop Project	3.07 5.1	Solar Heat Recovery	57.33 42.00	0.53 0.9				2.17	1.00	5.00	4.00	63.24 47.82	24	\$81,700	\$81,700	\$50,000		\$349,621	40-3100	Gonstruction	Full SP Full SP	\$81,700	ų-,-o-,o,
		Design and Construction of Biomass Systems in Interior Villages	Alaska Gateway School District Interior Regional Housing Authority	Heat Recovery Biomass	42.00	1.90 1.4		5 6.00	0.40	2.00	1.00	5.00	4.1/	47.82	52	\$2,848,939	\$2,/53,364 \$1,314,380	\$108,313		\$349,621	\$2,405,743	DesignConstruction  DesignConstruction	Not Recomnd	\$2,733,364	\$3,834,41
Yukon-Koyukok/Upper Tanana		Design and Constitution of Diomass Systems in Interior Villages	Interior regional Flousing Authority	Diomass		1.70 1.4	T/									\$1,314,380	\$1,314,380		\$169.050	\$2,657,409	\$2.618.043	DesignConstruction	1 NOT IXECOIIIII	\$3,854,411	ſ
Tukon-Koyukok/ Opper Tanan	a rotai						-	+	+							φ40,400,363	97,440,144	φ+43,354	φ100,959	φ4,057,409	φ4,010,043	'	<del>                                     </del>	\$3,034, <del>4</del> 11	<u> </u>
Grand Total	+						_	_	-							\$1,047,028,036	\$131 857 610	\$37 447 134	\$2.864.343	\$6 240 103	\$49 331 53		<del>                                     </del>	\$56,846,066	<u> </u>
Granu Total	1				I				1			I				Ψ1,047,020,030	ψ131,037,019	ψ3/,44/,134	42,004,343	φυ,440,193	447,331,33.	1		ψυ0,040,000	

<sup>&</sup>lt;sup>1</sup>Yukon-Koyukok/Upper Tanana applications #933 and #925 were moved up into the first \$25million of recommended funding to achieve Stage 4 Regional Spread



### Renewable Energy Fund - Round 6 Recommended Projects January, 2013

	T I	- <del>-</del>		T				
Energy Region	ID Name	Applicant	Resource	Phase	Project Cost	Grant Requested		Recommended Funding Rank
Kodiak	901 Karluk Tribal Council – Wind Energy System	Karluk Tribal Council	Wind	Feasibility Design	\$1,300,000	\$81,000	\$300	\$70,000 57
Railbelt	902 Jack River Hydroelectric Project Feasibility Study	Native Village of Cantwell	Hydro	Feasibility	\$10,000,000	\$213,750	\$11,250	\$213,750 55
Northwest Arctic	903 Northwest Arctic Borough Solar PV	Northwest Arctic Borough	Solar	Design Construction	\$75,000	\$75,000		\$75,000 42
Southeast	904 Dimond Park Library Geothermal HVAC System	City & Borough of Juneau	Geothermal	Design Construction	\$875,000	\$700,000	\$175,000	\$300,000 48
Southeast	907 Petersburg Community Heating System Retrofit Feasibility Study	City of Petersburg	Biomass	Recon Feasibility	\$51,360	\$41,360	\$10,000	\$41,360 53
Bristol Bay	908 Tazimina Hydroelectric Project Capacity Increase	INN Electric Cooperative, Inc.	Hydro	Feasibility	\$2,600,000	\$160,000	\$30,000	\$160,000 4
Southeast	909 Mahoney Lake Hydroelectric Project: Phase III	City of Saxman	Hydro	Feasibility	\$51,100,000	\$1,000,000	\$100,000	\$500,000 50
Bristol Bay	911 Levelock Wind Reconnaissance Study	Lake and Peninsula Borough	Wind	Recon	\$10,000	\$10,000	\$1,000	\$10,000 14
Bristol Bay	912 Egegik Wind Feasibility Study	Lake and Peninsula Borough	Wind	Recon	\$90,000	\$80,000	\$10,000	\$60,000 3
Railbelt	913 Stetson Creek Diversion/Cooper Lake Dam Facilities Project	Chugach Electric Association, Inc.	Hydro	Construction	\$23,808,913	\$3,453,920	\$17,343,267	\$3,453,920 25
Southeast	914 Connelly Lake Hydroelectric Project	Alaska Power & Telephone Company	Hydro	Feasibility	\$46,475,000	\$1,752,000	\$438,000	\$180,000 44
Yukon-Koyukok/Upper Tanar	a 915 Eagle Solar Array Project	Alaska Power Company (APC)	Solar	Construction	\$165,750	\$132,600	\$33,150	\$132,600 15
Southeast	916 Hydaburg Schools Wood Fired Boiler Project	Hydaburg City Schools	Biomass	Design	\$463,216	\$20,000	\$5,200	\$20,000 31
Southeast	917 Blue Lake Hydroelectric Expansion Project	City & Borough of Sitka (CBS)	Hydro	Construction	\$145,000,000	\$4,000,000	\$4,000,000	\$4,000,000 20
Southeast	918 West Creek Hydroelectric Project	Municipality of Skagway Borough	Hydro	Feasibility	\$140,000,000	\$236,000	\$84,000	\$236,000 56
Lower Yukon-Kuskokwim	921 AVCP RHA Wood Biomass Heating System	AVCP Regional Housing Authority	Biomass	Design Construction	\$3,399,387	\$3,149,387	\$250,000	\$3,149,387 41
Southeast	922 Gartina Falls Hydroelectric Project	Inside Passage Electric Cooperative	Hydro	Construction	\$8,009,000	\$6,694,000	\$15,000	\$6,694,000 5
Kodiak	923 Afognak Biomass Feasibility Study	Native Village of Afognak	Biomass	Recon Feasibility	\$1,633,974	\$170,974	ψ10,000	\$170,974 58
Railbelt	924 Seward Schools Biomass Heating System	Kenai Peninsula Borough School District (KPBSD)	Biomass	Design Construction	\$1,415,234	\$1,367,464	\$47,770	\$1,367,464 32
	a 925 Upper Tanana Biomass CHP Project	Alaska Power & Telephone Company	Biomass	Design	\$18,000,000	\$1,990,000	\$60,000	\$400,000 22
	a 926 AGSD District Heat Loop Project	Alaska Gateway School District		ry Design Construction	\$2,848,939	\$2,753,364	\$95,575	\$2,753,364 52
	a 927 Galena Community Wood Heat Project	City of Galena	Biomass	Design Construction	\$2,870.635	\$2,787,719	\$82,916	\$317,788 10
Kodiak	928 Bathymetric survey and marine geological study	City of Ouzinkie	Transmission	Design	\$6,129,000	\$356,400	\$25,000	\$356,400 33
		,		•				
Aleutians	929 Waterfall Creek Hydroelectric Project	City of King Cove	Hydro	Construction	\$4,300,000	\$2,600,000	\$1,300,000	\$2,600,000 19
Copper River/Chugach	930 Allison Creek Project	Copper Valley Electric Association, Inc. (CVEA)	Hydro	Construction	\$38,804,000	\$6,114,000	<b>#40.000</b>	\$6,114,000 23
Railbelt	931 Nenana Collaborative Biomass Heating System Project	Nenana City School District	Biomass	Design	\$3,006,607	\$466,890	\$19,200	\$466,890 34
	a 933 Biomass Feasibility Studies in Public Facilities, Interior Region	Interior Regional Housing Authority	Biomass	Feasibility	\$168,959	\$168,959		\$168,959 21
Bering Straits	934 Savoonga Heat Recovery System - Power Plant to Water Plant	City of Savoonga		ry Construction	\$425,701	\$425,701	\$11,752	\$425,701 16
Lower Yukon-Kuskokwim	935 Atmautluak Washeteria Heat Recovery Project	Atmautluak Traditional Council		y Construction	\$360,500	\$350,000	\$10,500	\$350,000 18
Lower Yukon-Kuskokwim	936 Heat Recovery for the Water System	City of Chuathbaluk		ry Design Construction	\$199,863	\$199,863	\$5,996	\$199,863 28
Lower Yukon-Kuskokwim	937 Heat Recovery for the Water Treatment Plant and Washeteria	Native Village of Kwinhagak		y Design Construction	\$668,350	\$668,350	\$20,050	\$668,350 13
Bering Straits	939 Stebbins Heat Recovery Project	Alaska Village Electric Cooperative, Inc.	Heat Recover	y Design Construction	\$1,341,063	\$1,319,088	\$21,975	\$1,319,088 9
Lower Yukon-Kuskokwim	940 Heat Recovery for the Water Treatment Plant & Community Store	City of Marshall	Heat Recover	y Design Construction	\$183,200	\$183,200	\$6,000	\$183,200 17
Northwest Arctic	941 Heat Recovery for the Water Treatment Plant	City of Noorvik	Heat Recover	y Design Construction	\$985,808	\$985,805	\$29,580	\$985,805 12
Lower Yukon-Kuskokwim	942 Heat Recovery for the Water Treatment Plant/Washeteria Building	Native Village of Tuntutuliak	Heat Recover	y Design Construction	\$438,585	\$425,811	\$12,774	\$425,811 26
Railbelt	943 OIT Inc Waste Heat Turbine Project	OIT Inc.	Heat Recover	y Design Construction	\$3,258,447	\$1,629,223	\$1,629,223	\$225,000 37
Bristol Bay	944 New Stuyahok Heat Recovery	Southwest Region School District	Heat Recover	y Design Construction	\$548,000	\$486,000	\$62,000	\$486,000 7
Lower Yukon-Kuskokwim	945 St. Mary's / Pitka's Point Wind Energy Project	Alaska Village Electric Cooperative, Inc.	Wind	Construction	\$6,153,991	\$5,538,592	\$615,399	\$5,538,592 29
Lower Yukon-Kuskokwim	947 Marshall Wind Energy Design and Permitting Project	Alaska Village Electric Cooperative, Inc.	Wind	Design	\$2,509,850	\$332,500	\$17,500	\$332,500 54
Bering Straits	948 Wales Wind Energy Feasibility and Conceptual Design Project	Alaska Village Electric Cooperative, Inc.	Wind	Feasibility	\$1,020,000	\$190,000	\$10,000	\$75,000 27
Lower Yukon-Kuskokwim	949 Kotlik Wind Energy Feasibility and Conceptual Design Project	Alaska Village Electric Cooperative, Inc.	Wind	Feasibility	\$3,060,000	\$142,500	\$7,500	\$142,500 36
Northwest Arctic	952 Cosmos Hills Wind Resource and Intertie Assessment	Alaska Village Electric Cooperative, Inc.	Wind	Recon Feasibility	\$233,000	\$221,350	\$11,650	\$40,000 35
Northwest Arctic	953 Hotham Peak Wind Resource and Intertie Assessment	Alaska Village Electric Cooperative, Inc.	Wind	Feasibility	\$23,000,000	\$207,100	\$10,900	\$207,100 38
Lower Yukon-Kuskokwim	954 St. Mary's / Mountain Village Wind Energy Intertie Final Design	Alaska Village Electric Cooperative, Inc.	Wind	Design	\$7,449,000	\$332,500		\$332,500 47
Lower Yukon-Kuskokwim		Alaska Village Electric Cooperative, Inc.	Wind	Construction	\$6,202,000	\$5,581,800		\$5,581,800 40
Lower Yukon-Kuskokwim	956 Goodnews Bay Wind Energy Feasibility and Conceptual Design	Alaska Village Electric Cooperative, Inc.	Wind	Feasibility	\$1,530,000	\$142,500		\$142,500 43
Bering Straits	957 Shishmaref Wind Energy Feasibility and Conceptual Design Project		Wind	Feasibility	\$2,040,000	\$142,500	\$7,500	\$142,500 46
Railbelt	959 Ticasuk Brown School Pellet Boiler Project-Phase 2	Fairbanks North Star Borough (FNSB)	Biomass	Construction	\$350,000	\$350,000	Ψ1,300	\$250,000 51
Bristol Bay	962 Manokotak Wind & Heat Feasibility Study	Manokotak Power Company	Wind	Feasibility	\$1,020,000	\$193,000	\$7,000	\$143,000 45
•	965 Haines Borough Pellet Heating Project			•			. ,	
Southeast Bristol Bay	966 High-penetration Wind Energy Project- Kokhanok	Haines Borough Kokhanok Electric	Biomass Wind	Design Construction Construction	\$517,000 \$190,000	\$472,000 \$185,000		\$472,000 39 \$185,000 2
Aleutians	967 Cold Bay Waste Heat Recovery Project	G&K Electric Utility	Heat Recover		\$114,765	\$109,765		\$30,000 8
Railbelt	975 Juniper Creek Hydroelectric Project Feasibility Study	Ram Valley LLC	Hydro	Recon	\$4,300,000	\$127,900	\$44,800	\$30,000 49
Bristol Bay	976 Knutson Creek Hydroelectric Project Design and Permitting	Pedro Bay Village Council	Hydro	Design	\$3,400,000	\$290,000	\$2,500	\$290,000 11
Railbelt	977 Carlo Creek Hydroelectric Project Reconnaissance Study	Native Village of Cantwell	Hydro	Recon	\$7,500,000	\$66,500		\$30,000 60
Southeast	978 Indian River Hydroelectric Project Construction	City of Tenakee Springs DBA Tenakee Springs Electric Dept		Construction	\$3,674,000	\$2,988,000		\$2,988,000 1
Railbelt	979 Waste-to-Energy Feasibility Study	Chugach Electric Association, Inc.	Biofuels	Feasibility		\$550,000		\$40,000 59
	a 981 Tanana Solar Domestic Hot Water Heating Project	City of Tanana	Solar	Construction	\$81,700	\$81,700		\$81,700 24
Copper River/Chugach	982 Community Facilities Woody Biomass Space Heating Project	Mentasta Traditional Council	Biomass	Design Construction	\$510,000	\$460,000	\$50,000	\$460,000 6





January 18, 2013

The Honorable Charlie Huggins Senate President State Capitol, Room 111 Juneau, Alaska 99801

The Honorable Mike Chenault Speaker of the House State Capitol, Room 208 Juneau, Alaska 99801

RE: Renewable Energy Fund - Recommendations for Round 6 Funding

Dear President Huggins and Speaker Chenault:

The Alaska State Legislature created the Renewable Energy Fund (REF) and Grant Recommendation Program in 2008. This program placed Alaska at or near the forefront of the 50 states in funding for renewable energy. The Legislature authorized Alaska Energy Authority (AEA) to manage the REF program and in 2012 extended the program for 10 years.

Pursuant to AS 42.45.045(d)(3) we are pleased to provide the AEA Renewable Energy Fund Round 6 recommendations for your consideration. Of the 85 applications received, AEA has recommended funding for 60 projects.

The following documents are included with this letter:

- 1. Spreadsheets that provide lists of all projects for which applications were received, their evaluation score, statewide ranking, and recommended funding.
- 2. A map indicating the projects recommended by location and type.
- 3. An executive summary of the Renewable Energy Fund, including both Round 6 recommendations and Round 1 through 5 project status and performance highlights.

Additional supporting materials are available on the AEA web site, including AEA's Round 6 evaluation summaries and economic analysis for each application, the evaluation methodology, and a status report with details on each of the projects funded in Rounds 1 through 5.

http://www.akenergyauthority.org/RE Fund Applications-6.html

AEA will provide detailed information on a CD and deliver to individual legislators upon request. Please contact me if you have any questions.

Sincerely,

ALASKA ENERGY AUTHORITY

Sara Fisher-Goad Executive Director

**Enclosures** 

cc: Alaska Legislature