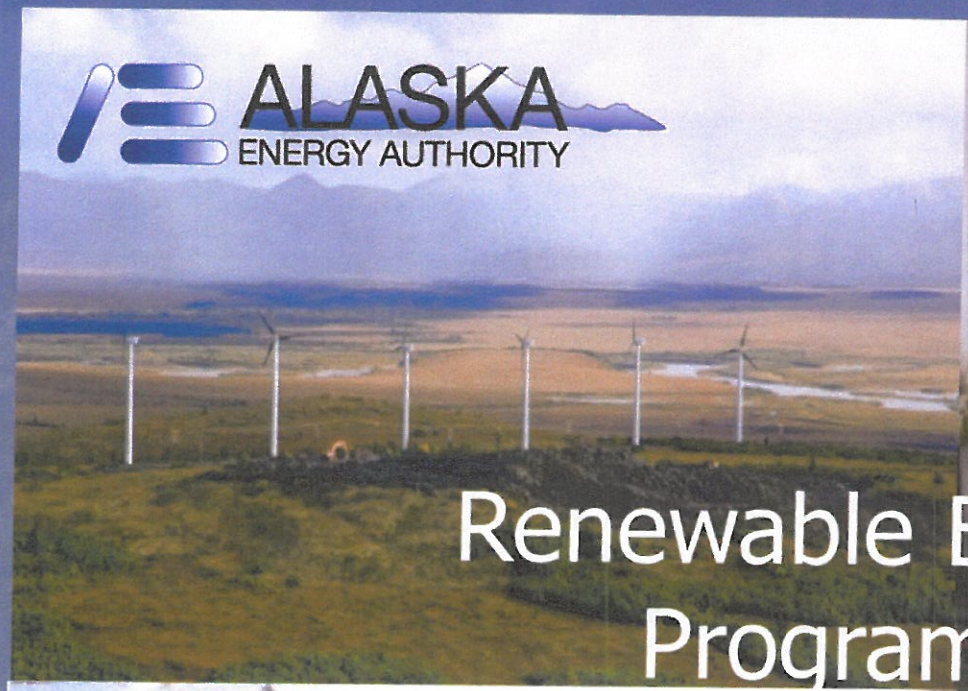

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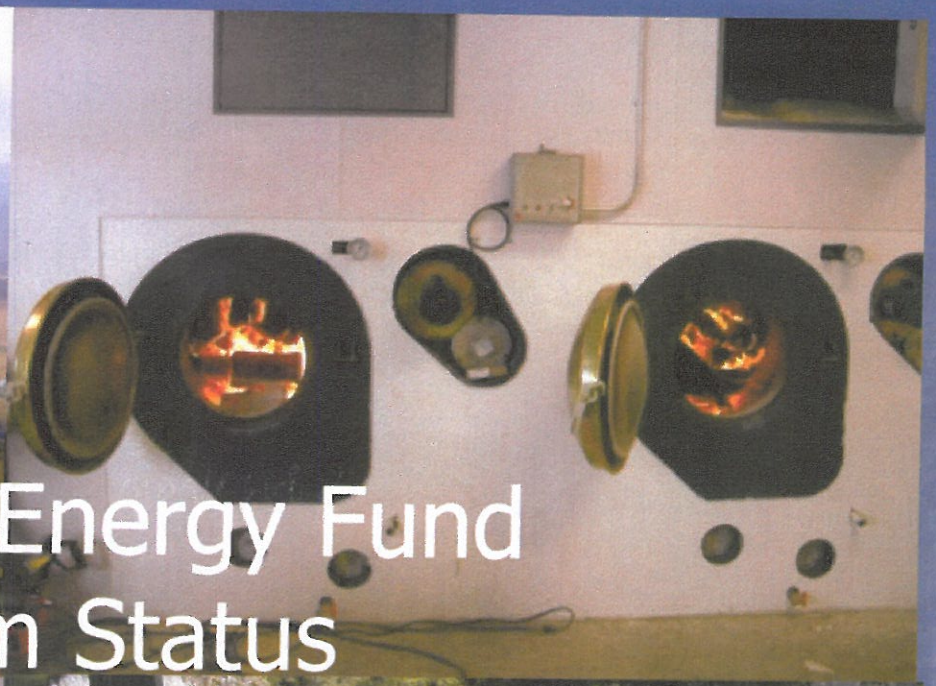
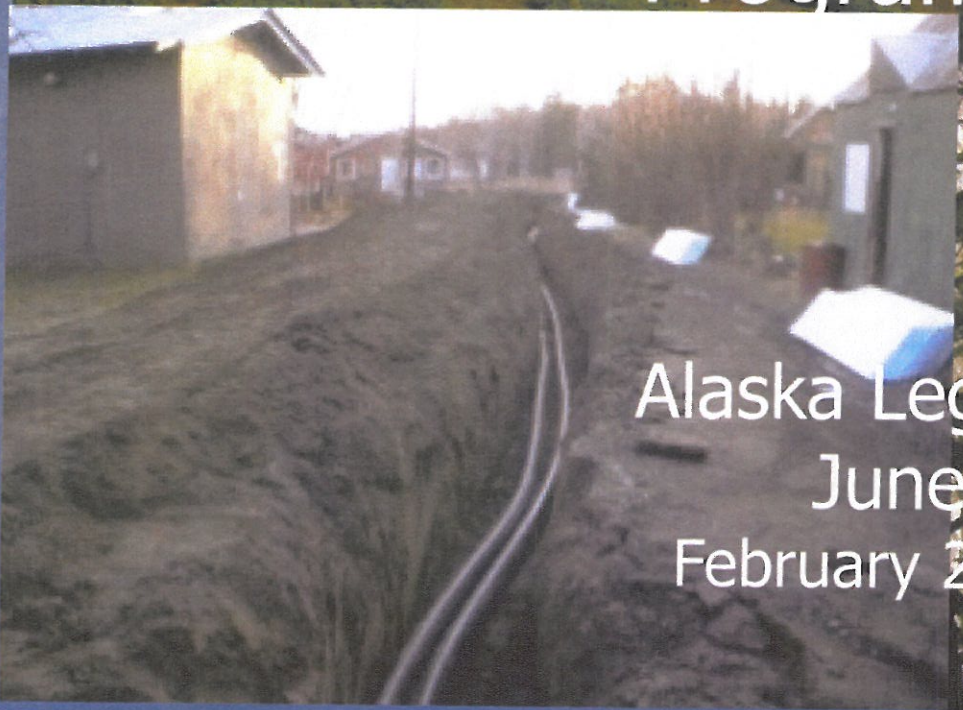
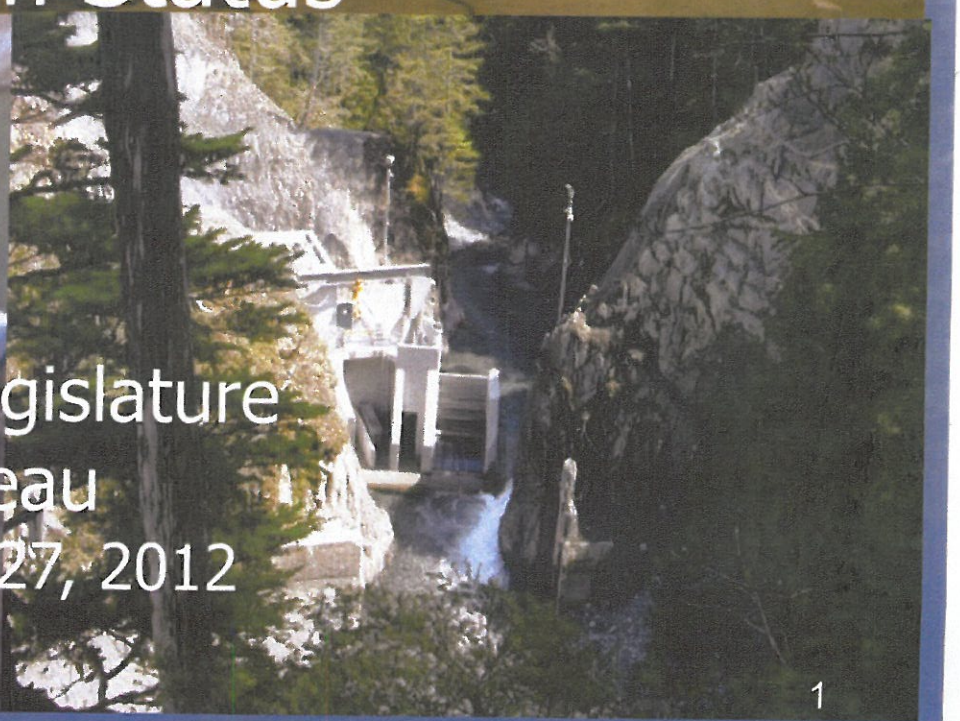


Renewable Energy Fund
Program Status





Alaska Legislature
Juneau
February 27, 2012

Peter Crimp - Dep. Director AEA Alternate Energy

Renewables and other Projects 5-Year State Funds

Renewable Energy, Emerging Energy Technology & Other Large Energy Development Projects
5 Year Funding Levels - FY2008 thru FY2012
Prepared by the Alaska Energy Authority
February 11, 2012

Program Type	No. of Projects	Renewable Energy Funds	Other State Funds	Total State Funding
Renewable Energy Programs:				
Biomass	49	18,279,657	1,398,091	19,677,748
Heat Recovery - Other Diesel	27	8,464,017	1,360,381	9,824,397
Energy Efficiency & Conservation	23	-	3,455,910	3,455,910
Geothermal	16	14,452,219	12,553,038	27,005,257
Hydropower	81	46,139,814	64,211,988	110,351,803
Ocean & River Energy	4	2,718,175	442,347	3,160,522
Energy Generation - Transmission	28	24,869,271	48,342,629	73,211,900
Wind Energy	74	61,351,725	11,183,563	72,535,288
Solar Power	6	325,122	58,747	383,869
Emerging Energy Technology	TBD	-	4,800,000	4,800,000
Large Energy Development Projects:				
Susitna-Watana Hydroelectric Project	1	-	75,970,435	75,970,435
Fire Island Wind Farm T-Lines	1	-	25,000,000	25,000,000
	310	**176,600,000**	**248,777,129**	**425,377,129**

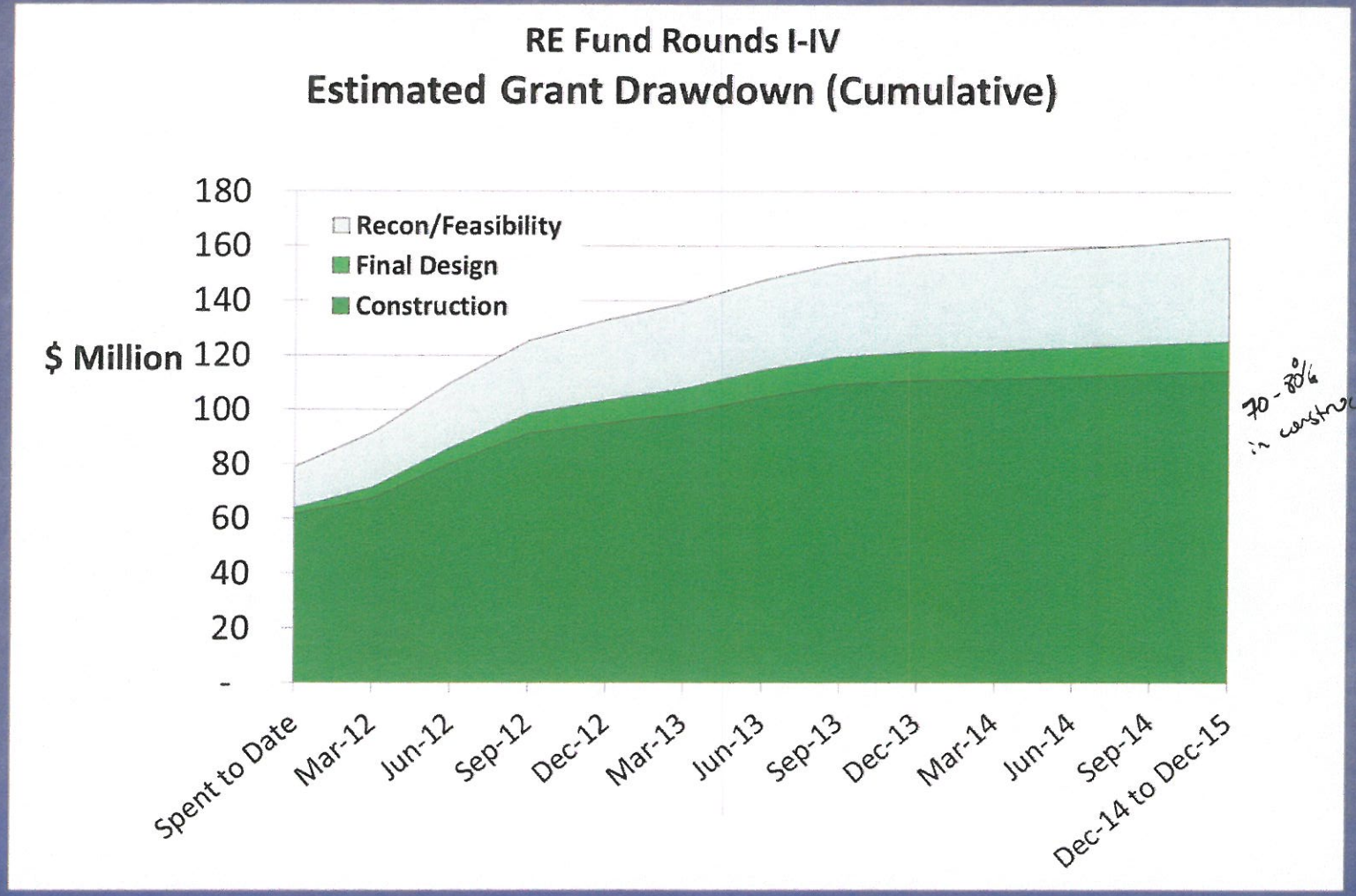
RE Fund Grant Status

Feb 17, 2012

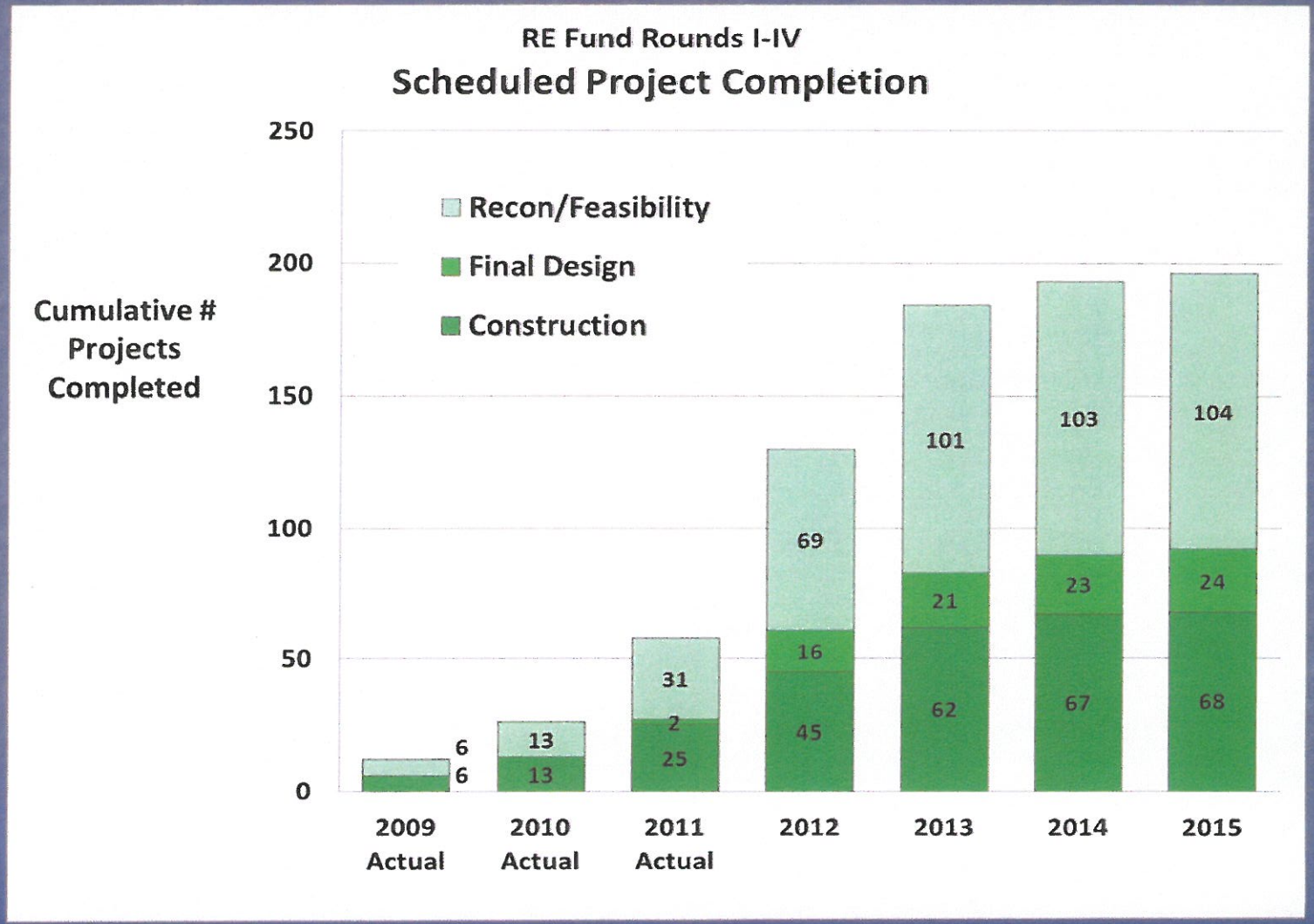
FY13

Round	I	II	III	IV	V	Total
Applications Received	112	118	123	108	97	558
Projects Funded	79	30	25	74	tbd	208
Grants in Place	72	29	19	49	0	165
Grants Completed	23	4	0	0	0	27
Grants Cancelled	5	1	3	0	0	9
Amount Requested ($M)	$453.8	$293.4	$223.5	$123.1	$132.9	$1,226.7
AEA Recommended ($M)	$100.0	$36.8	$65.8	$36.6	$43.2	$282.4
Appropriated ($M)	$100.0	$25.0	$25.0	$26.6	tbd	$176.6
Cash Disbursed ($M)	$54.9	$17.1	$6.2	$2.6	$0	$80.8
Match provided ($M)	$20.7	$22.6	$10.5	$34.6	tbd	$88.4
Other Contributions ($M)	$9.2	$1.6	$0.8	$14.5	tbd	$26.1
Can be reallocated ($M)	$0	$0	$0.2	$0	$0	$0.2

RE Fund Drawdown Outlook



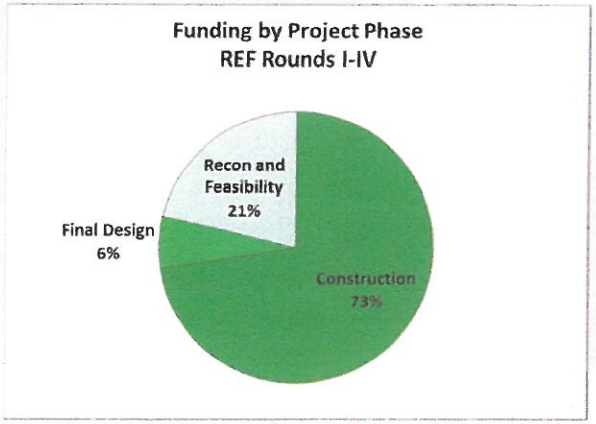
RE Fund Project Completion



Pre-construction Projects (R1-4)

Rounds 1-4

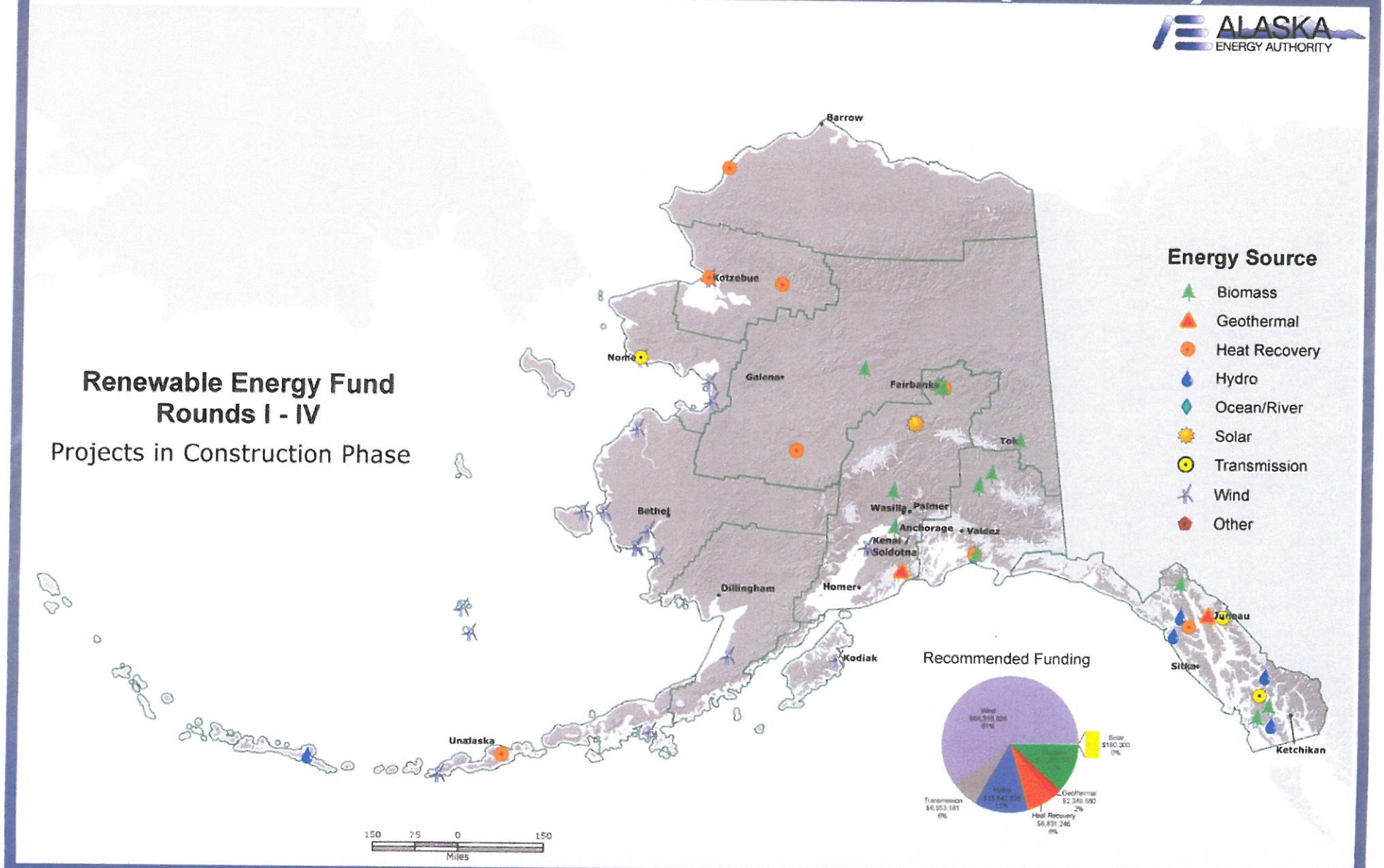
ALASKA ENERGY AUTHORITY



Renewable Energy Fund Rounds I - IV

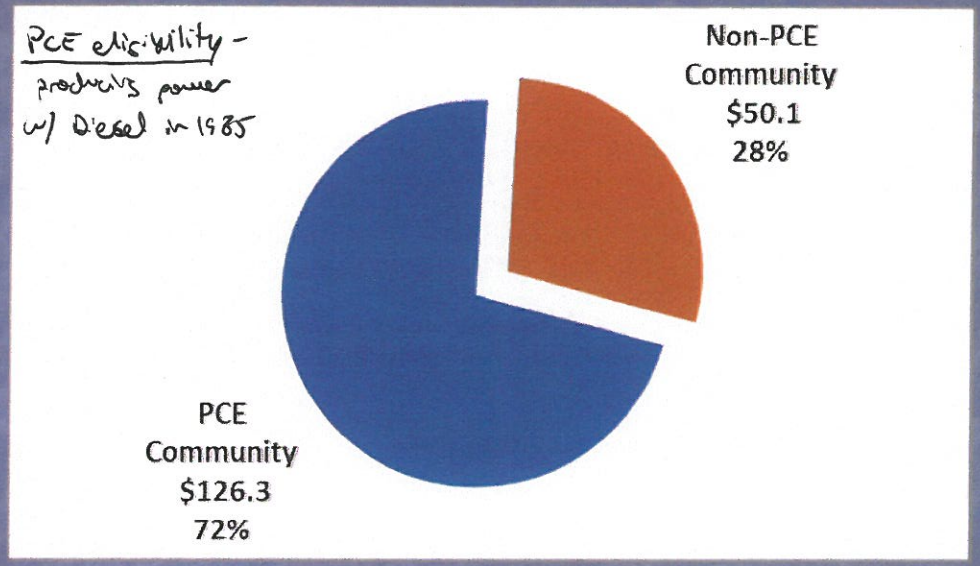
Projects in PreConstruction Phase:
Reconnaissance, Feasibility, or Design

Construction Projects (R1-4)

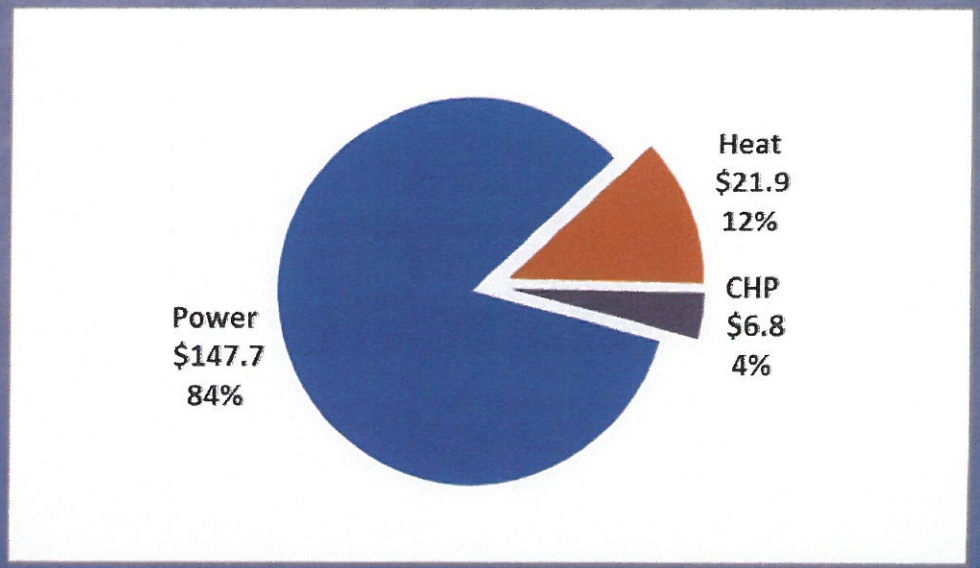


Funding Allocation by
($ x million, Rounds I – IV)

- PCE vs Non-PCE



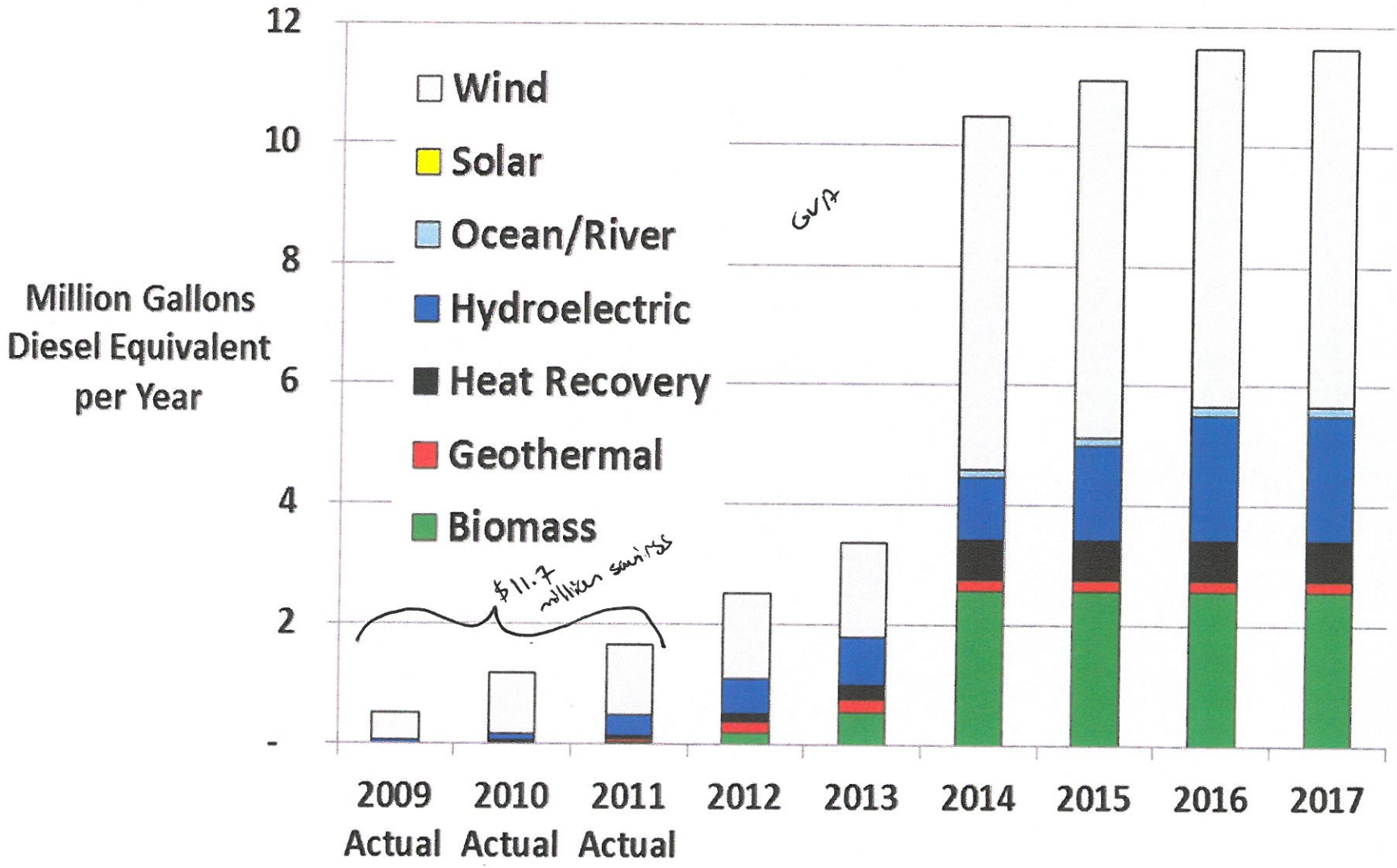
- Heat vs Power



Round 5 emphasis on Heat

Fig. 3. RE Fund Rounds I-IV

Annual Fuel Savings--Actual and Projected



Cost of Scheduled Construction Projects, Rounds I – IV

	Million
RE Fund Grants	$123.3
Other State Funds	22.9
Non-state and Local	218.7
TOTAL	$364.9

Energy production and diesel cost savings-2011

Resource	Grantee	Project Name	Energy Performance					Economic Performance					
			2011 Energy Production		Diesel Displaced (gal x 1000)		Actual / Goal	Project Cost ($ x 1000)		2011 Fuel Savings ($ x1000)	Simple Payback (Years) on:		Project Life
			Electrical (MWh)	Thermal (mmBtu)	2011 Actual	Goal		Total Cost	REF Funding		Total Cost	REF Funding	
Biomass	Alaska Gateway School District	Tok Wood Heating	-	3.2	24.4	50.4	48%	3,260	3,245	92	35	35	20
	Native Village of Eyak	Cordova Wood Processor	-	1.5	11.4	88.7	13%	78	75	42	2	2	20
	Gulkana Village Council	Gulkana Central Wood Heating	-	0.8	5.9	14.6	40%	500	500	24	21	21	20
Geothermal	City and Borough of Juneau	Juneau Airport GS Heat Pump	-	5.1	37.1	29.5	126%	1,026	513	131	8	4	20
Heat Recovery	Golden Valley Electric Assoc	North Pole Heat Recovery	-	5.2	61.5	89.6	69%	1,022	817	172	6	5	20
	McGrath Light & Power Co	McGrath Heat Recovery	-	2.9	23.0	32.0	72%	1,179	712	157	8	5	20
Hydro	City and Borough of Wrangell	Wrangell Hydro Electric Boilers	-	6.9	66.0	69.6	95%	2,082	2,000	230	9	9	20
	Gustavus Electric Co	Falls Creek Hydroelectric	1,933	-	138.1	118.3	117%	8,400	750	483	17	2	50
Solar	Golden Valley Electric Assoc	McKinley Village Solar Thermal	-	0.1	1.8	5.7	31%	194	193	7	27	27	20
Wind	Kodiak Electric Association	Pillar Mountain Wind	12,448	-	870.7	852.0	102%	21,400	4,000	2,873	7	1	20
	Alaska Env Power	Delta Area Wind	1,425	-	95.9	117.0	82%	2,802	2,000	256	11	8	20
	Alaska Village Electric Coop	Toksook Wind Farm	187	-	12.6	16.3	77%	1,253	1,038	43	29	24	20
	Nome Joint Utility Systems	Banner Pk Wind Transmission	955	-	53.9	191.3	28%	6,390	801	152	42	5	20
	Unalakleet Valley Electric Co	Unalakleet Wind Farm	958	-	58.2	61.9	94%	6,000	4,000	211	28	19	20
TOTAL			**17,907**	**25.8**	**1,460.4**	**1,736.8**	**84%**	**55,585**	**20,645**	**4,872**	**11**	**4**	

1. Includes projects in operation in January 2011 or before.
2. Tok Wood Heating project shut down June-Dec for steam turbine installation.
3. Nome Banner Peak wind project is privately owned. The RE Fund paid only for the intertie.

Challenges/Opportunities

- Focus on the entire energy system
  - Reliable, efficient diesel systems first
  - Reduce demand through EE
- Deliverables
  - Reduce and stabilize costs to residents
  - Displace diesel
  - Assist in project development
- Monitor technical and economic performance

Thank you.

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www.akenergyauthority.org