



Department of Energy Recovery Act State Memos

Alaska



For questions about DOE's Recovery Act activities, please contact the DOE Recovery Act Clearinghouse:
1-888-DOE-RCVY (888-363-7289), Monday through Friday, 9 a.m. to 7 p.m. Eastern Time
<https://recoveryclearinghouse.energy.gov/contactUs.htm>.

All numbers and projects listed as of June 1, 2010

TABLE OF CONTENTS

RECOVERY ACT SNAPSHOT.....	1
FUNDING ALLOCATION TABLE.....	2
ENERGY EFFICIENCY	3
RENEWABLE ENERGY	5
ELECTRIC GRID.....	5
CARBON CAPTURE & STORAGE.....	6
RECOVERY ACT SUCCESS STORIES – ENERGY EMPOWERS	
• <i>Hurricanes, tornadoes, jobs and energy efficiency in Montgomery, Alabama</i>	7
• <i>Thanks to Recovery Act, Alabama family staying nice and cozy this fall</i>	8
• <i>Alabama justice center expands its solar capabilities</i>	8



American Recovery and Reinvestment Act



U.S. DEPARTMENT OF ENERGY • ALASKA RECOVERY ACT SNAPSHOT

Funding for selected DOE projects: **\$92.2 million**

DOE Recovery Act projects in Alaska: **161**

For total Recovery Act jobs numbers in Alaska go to www.recovery.gov

Alaska has substantial natural resources, including oil, gas, coal, solar, wind, geothermal, and hydroelectric power. The **American Recovery & Reinvestment Act (ARRA)** is making a meaningful down payment on the nation's energy and environmental future. The Recovery Act investments in Alaska are supporting a broad range of clean energy projects, from energy efficiency and electric grid improvements to geothermal power. Through these investments, Alaska's businesses, universities, non-profits, and local governments are creating quality jobs today and positioning Alaska to play an important role in the new energy economy of the future.

EXAMPLES OF ALASKA FORMULA GRANTS

Program	State Energy Program	Weatherization Assistance Program	Energy Efficiency Conservation Block Grants	Energy Efficiency Appliance Rebate Program
Award (in millions)	\$28.2	\$18.1	\$25.1	\$0.7
	The Alaska Housing Financing Corporation has received \$28.2 million in State Energy Program funds to invest in state-level energy efficiency and renewable energy priorities.	The Alaska Housing Financing Corporation has received \$18.1 million in Weatherization Assistance Program funds to scale-up existing weatherization efforts in the state, creating jobs, reducing carbon emissions, and saving money for Alaska's low-income families. Over the course of the Recovery Act, Alaska expects to weatherize more than 1,500 homes. The program also includes workforce training and education as part of the state's efforts to develop a green workforce.	One hundred fifty-two communities in Alaska received a total of \$25.3 million for Energy Efficiency and Conservation Block Grants (EECBG) to develop, promote, implement, and manage localized energy efficiency programs.	The Alaska Housing Financing Corporation has received \$658,000 for the Energy Efficient Appliance Rebate Program, which offers consumer rebates for purchasing certain ENERGY STAR® appliances. These energy efficient appliances reduce energy use and save money for families, while helping the environment and supporting the local economy.

EXAMPLES OF ALASKA COMPETITIVE GRANTS AND TAX CREDITS

Award	\$12.4 million	\$4.3 million	\$2.2 million
	The Naknek Electric Association was awarded \$12.4 million for Enhanced Geothermal Systems (EGS) Demonstrations. The funds will be used to develop a 25 megawatt generation plant, district heating system, and interconnection which will help provide energy to eight communities in the Northern Bristol Bay area.	The University of Alaska Fairbanks was awarded \$4.3 million to test a combination of exploration techniques to assess the underground geothermal resources at Pilgrim Hot Springs, Alaska.	The Trabits Group in Wasilla was awarded \$2.2 million for Enhanced Geothermal Systems technology research and development. The funds will be used to develop an improved cement for high temperature geothermal wells.

Funding Allocation Table (Figure 1)

Total dollar amounts in this document are accurate as of June 1, 2010. Please note that Recovery Act Programs are ongoing and the dollar amounts are subject to change. Recipient locations are based on project sites rather than recipients' headquarters locations.

Recovery Act Pillar	Flagship Program Names & Funding Type ¹	Number of Selections	Selected Amount (in millions) ²
Energy Efficiency	<i>Weatherization Assistance Program (F)</i>	1	\$18.1
	<i>State Energy Program (F)</i>	1	\$28.2
	<i>Energy Efficiency and Conservation Block Grant (F)</i>	152	\$25.1
	<i>Energy Efficient Appliance Rebate (F)</i>	1	\$0.7
	TOTAL Energy Efficiency	155	\$72.1
Renewable Energy	<i>Geothermal (CM)</i>	3	\$18.8
	TOTAL Renewable Energy	3	\$18.8
Electric Grid	<i>State and Local Energy Assurance and Regulatory Assistance (F)</i>	2	\$1.0
	TOTAL Electric Grid	2	\$1.0
Carbon Capture and Storage	<i>Research and Training (CM)</i>	1	\$0.3
	TOTAL Carbon Capture and Storage	1	\$0.3
TOTAL - DOE Programs³		161	\$92.2
¹ F=Formula Grant, CM=Competitive Grant, C=Contract			
² "Selected" indicates DOE has selected a potential funding recipient, which begins the process of negotiating an agreement. This does not necessarily indicate that a final agreement has been reached.			
³ Total does not include administrative funds.			

ENERGY EFFICIENCY – 155 projects totaling \$72.1 million

Helping millions of American families cut utility bills by making homes and appliances more energy efficient, expanding the home efficiency industry in sales and manufacturing. For more information, visit <http://www.energy.gov/recovery/energyefficiency.htm>

Award(s): \$18.1 million, Weatherization Assistance Program (WAP)

Location: Statewide

The Alaska Housing Financing Corporation (AHFC) received \$18.1 million in Weatherization Assistance Program (WAP) funds to enhance existing weatherization efforts in the state, create jobs, reduce carbon emissions and save money for Alaska's low-income families. Over the course of the Recovery Act, Alaska aims to weatherize more than 1,500 homes. Additionally, the program includes workforce training and education as part of the state's efforts to develop a "green" workforce. AHFC administers weatherization programs that award grants to non-profit organizations improving the energy efficiency of low-income homes statewide. These programs also provide for training and technical assistance in home energy efficiency. AHFC sets eligibility requirements and oversees local agencies which provide weatherization in the field. Program operators install energy-efficient improvements in qualifying households (single frame houses and mobile homes). Improvements include storm windows, the addition of insulation and heating system improvements.

Award(s): \$28.2 million, State Energy Program (SEP)

Location: Statewide

The Alaska Housing Financing Corporation received \$28.2 million in State Energy Program funds to invest in state-level energy efficiency and renewable energy priorities. Alaska will focus on outreach efforts and technical assistance to improve efficiency in schools, commercial buildings, industrial users and large local facilities. In addition, the state will help communities develop pilot projects that integrate electrical and heating needs into combined energy systems powered by renewable energy. These systems will reduce diesel use, save money on energy costs and decrease community's carbon footprint. Alaska is establishing programs to conduct energy audits in commercial and small businesses promote constituent energy education and implement energy efficiency retrofit measures in school buildings and state facilities.

Award(s): 152 totaling \$25.3 million, Energy Efficiency and Conservation Block Grant Program (EECBG)

Location: Statewide

Recipients : Alaska State Energy Office, Athna, Akiachak Native Community, Alaska Housing Finance Corporation, Alaska Inter Tribal Council, Alaska Native Tribal Health Consortium, Aleut Community Of St Paul Island Tribal Government, Aleutians East Borough, Anchorage, Angoon Community Association, Aniak Traditional Council, Asa'carsarmiut Tribal Council, Association Of Village Council Presidents, Atmautluak Traditional Council, Belkofski Tribal Council, Bering Straits Native Corporation, Bethel, Birch Creek Tribal Council, Bristol Bay Native Association, Cantwell, Native Village Of, Central Council Tlingit and Haida Indian, Cheesh'na Tribal Council, Chenega Ira Council, Chickaloon Village Traditional Council, Chignik Bay Tribal Council, Chignik Lagoon, Village, Chilkat Indian Village, Chilkoot Indian Association, Chinik Eskimo Community, Chitina Village Council, City Of Akutan, City Of Fairbanks, City Of Fairbanks ,City Of Kodiak, Cook Inlet Region, Inc., Crooked Creek Corporation, Curyung Tribal Council, Dena' Nena' Henash, Denali Borough, Denali Borough, Douglas Indian Association, Doyon, Egegik Village Tribal Council, Evansville Tribal Council, Fairbanks North Star, Gulkana Village Council, Haines, Hoonah Indian Association, Hydaburg Cooperative Association,

Igiugig Village Council, Iliamna Village Council, Indian Reorganization, Interior Regional Housing Authority, Inupiat Community Of The Arctic Slope, Ivanof Bay Tribal Council, Juneau, Kanatak Tribal Council, Karluk Ira Traditional Council, Kasigluk Village Council, Kenai Peninsula Borough (Inc), Kenai, Kenaitze Indian Tribe, Ketchikan Gateway Borough, Ketchikan Indian Corporation, King Island Native Community, King Salmon Tribe, Kivalina, Knik Tribal Council Nonprofit Corporation, Kodiak Island Borough, Kokhanok Tribal Council, Koniag, Kotlik Traditional Council, Kwigillingok, Kwinhagak, Lime Village Traditional Council, Loudon Tribal Council, Mary's Igloo Traditional Council, Matanuska-Susitna Borough, Mentasta Traditional Council, Metlakatla Housing Authority, Nana Regional Corporation, Inc., Nanwalek Ira Council Inc, Napaimute, Naqsrarmiut Tribal Council, Native Council Of Port Heiden Inc, Native Village Of Afognak, Native Village Of Akhiok, Native Village Of Ambler, Native Village Of Barrow Inupiat Traditional Government, Native Village Of Council, Native Village Of Diomedea, Native Village Of Eklutna, Native Village Of Elim Ira, Native Village Of Eyak, Native Village Of Fort Yukon, Native Village Of Gakona, Native Village Of Koyuk Ira Council, Native Village Of Napakiak, Native Village Of Port Lions, Native Village Of Saint Michael, Native Village Of Shishmaref, Native Village Of Tanana, Native Village Of Tyonek, Native Village Of Unalakleet, Native Village Of Wales, Nelson Lagoon Tribal Council, Nikolski Ira Council, Ninilchik Village Traditional Council, Nome Eskimo Community, Northwest Arctic, Organized Village Of Kake, Organized Village Of Kasaan Community Quota Entity, Organized Village Of Kwethluk, Organized Village Of Saxman, Orutsararmiut, Paimiut, Palmer, Pauloff Harbor Tribe, Pedro Bay Village Council, Perryville Village Council, Petersburg Indian Association, Pilot Point Tribal Council, Port Graham Village Council, Qagan Tayagungin Tribe, Ruby Tribal Council, Salamatof Native Association Inc, Sealaska Corporation, Seldovia Village Tribe, Shoonaq' Tribe Of Kodiak, Sitka Tribe Of Alaska, Sitka, Skagway Traditional Council, Stebbins Community Association, Stony River Traditional Council, Tatitlek Ira Council, Tazlina Village Council, Telida Tribal Council, Tetlin Village Council, Ugashik Traditional Village, Wasilla City, Wrangell Cooperative Association, Yakutat Tribe

One hundred and fifty-two communities in Alaska received a total of \$25.3 million for the Energy Efficiency and Conservation Block Grants Program (EECBG) to develop, promote, implement and manage localized energy efficiency programs.

Alaska is using its Recovery Act EECBG funding to implement energy efficiency and renewable energy projects in local communities across the state, including energy audits, building retrofits, transportation efficiency programs and installations of renewable energy technologies on government buildings. The Alaska Housing Finance Corporation is working in coordination with the Alaska Energy Authority to administer EECBG funding, including competitively passing a majority of the state's funding onto local cities and counties.

Award(s): \$658,000, Energy Efficient Appliance Rebate Programs

Location: Statewide

The Alaska Housing Financing Corporation received \$658,000 for the Energy Efficient Appliance Rebate Program, which offers consumer rebates for purchasing certain ENERGY STAR® appliances. These energy efficient appliances reduce energy use and save money for families, while helping the environment and supporting the local economy.

Alaska's Residential Energy-Efficient Appliance Rebate Program is offering rebates for select ENERGY STAR appliances installed in disabled Alaskans' households. This program is administered by the Alaska Housing Finance Corporation. These rebates are available for ENERGY STAR refrigerators,

freezers, washers and dishwashers. Rebates are slightly higher for rural communities, defined as those not served by road or the Alaska Marine Highway at least once per week.

RENEWABLE ENERGY – 3 projects totaling \$18.8 million

Developing the clean renewable resources in order to double our supply of renewable energy and boost domestic renewable manufacturing capacity. For more information, visit <http://www.energy.gov/recovery/renewableenergy.htm>.

Award(s): \$2.2 million, Enhanced Geothermal Systems (EGS) Technology R&D

Location: Wasilla

The Trabits Group in Wasilla received \$2.2 million to develop a novel, zeolite-containing, lightweight, high-temperature, high-pressure geothermal cement. This cement provides operators with an easy-to-use, flexible cementing system that saves time and simplifies logistics.

Award(s): \$12.4 million, Geothermal Demonstrations

Location: Naknek

The Naknek Electric Association in Naknek received \$12.4 million to develop a 25 MW generation plant, district heating system and interconnection which will serve eight communities in the Northern Bristol Bay area. The system has growth potential of up to 50 MW for a larger region of Southwestern Alaska. The project will increase economies of scale, replace the use of No.1 and No.2 diesel fuel, and reduce costly and potentially hazardous transportation of fossil fuels along habitat-sensitive waterways in Bristol Bay, home of the world's largest wild salmon runs.

Award(s): \$4.3 million, Validation of Innovative Exploration Technologies

Location: Fairbanks

The University of Alaska in Fairbanks received \$4.3 million to test a combination of exploration techniques aimed at assessing the geothermal resource at Pilgrim Hot Springs, Alaska.

MODERNIZING THE ELECTRIC GRID – 2 projects totaling \$1 million

Harnessing clean energy sources and integrating them onto a modernized electric grid, while giving consumers better choices and more control over their energy use.. For more information, visit <http://www.energy.gov/recovery/smartgrid.htm>.

Award(s): \$263,000, Enhancing State and Local Governments' Energy Assurance

Location: Anchorage

The Alaska Housing Finance Corporation in Anchorage received \$263,000 for State Energy Assurance planning. This project focuses on building regional energy assurance capability by enhancing inter- and intra- state coordination and cooperation during energy emergencies. The project funds states to update or develop State Energy Assurance Plans incorporating new energy portfolios such as wind, renewables and biofuels. The project also funds cities to update or develop Local Energy Assurance Plans. The two sets of funding are used to hire or retrain staff to build in-house expertise in dealing with Smart Grid technologies, critical energy infrastructure interdependencies and cyber-security.

Award(s): \$767,000, State Assistance on Electricity Policies

Location: Anchorage

The Alaska Department of Commerce, Community & Economic Development in Anchorage received \$767,000 to assist in addressing its Recovery Act electricity workload by hiring staff trained to facilitate the review of time-sensitive requests approving electric utility expenditures.

CARBON CAPTURE & STORAGE – 1 project totaling \$300,000

Developing clean coal technologies so we can utilize America's coal resources sustainably. For more information, visit <http://www.energy.gov/recovery/ccs.htm>.

Award(s): \$300,000, Geologic Sequestration Training and Research Grant Program

Location: Fairbanks

The University of Alaska in Fairbanks received \$300,000 to develop a methodology for the geological and geotechnical site characterization in mafic rocks. This will be done through both simulations and field work, with the goal to complete an economic analysis of these opportunities. This project supports graduate and undergraduate students at the University of Alaska in Fairbanks during the research effort phase of this project.

ENERGYEMPOWERS.GOV

Recovery Act Success Stories

Energy Empowers is a U.S. Department of Energy clean energy information service. Our team produces stories featuring the people and businesses that are fueling the energy transformation and economic recovery in America. For more stories from your state, go to energyempowers.gov/Alaska

Rebate program serves Alaskans with disabilities

According to the U.S. Census Population Finder, the estimated population of Alaska as of 2009 was 698,473. In the same year, Alaska was awarded \$658,000 as part of the State Appliance Rebate Program, an American Recovery and Reinvestment Act program that helps Americans purchase ENERGY STAR appliances to replace older, inefficient models. That grant worked out to less than \$1 per Alaska resident - and that meant the state had to do some creative thinking.

"So the idea was to come up with a program that worked and had minimal administrative costs, so most of the money would go to the rebates," says Cary Bolling, an Energy Specialist for the Alaska Housing Finance Corporation (HFC), the state agency administering the program.

The state's solution: piggybacking administrative costs onto an existing energy rebate program, then aiming the program specifically at Alaskans with disabilities. Not only did this narrow the pool of potential recipients, but it targeted people for whom the savings may be especially welcome.

Remote villages – high energy and travel costs

Bolling puts it this way: "Imagine living in a small village of about 100 people. You're not connected by road to anybody, and there may be one store in that village that sells a few groceries. So you'd have to take a small plane to a hub community of maybe several thousand people, and they might have a general store where you have a few appliances."

With few purchasing options in rural Alaska, appliance costs can escalate easily. To buy a specific appliance, Bolling notes that residents in rural communities have "to take a jet hundreds of miles to Anchorage or maybe Fairbanks. And there you might find [a retailer] where you could maybe get an appliance like this. And once you've got it, you have to find out a way to get it back, which could be by air, but mostly by barge."

Complicating matters is the fact that many of the villages in rural Alaska don't have a large-scale electrical utility, Bolling says. Instead, they rely on diesel generators at a cost of 50 cents per kilowatt-hour or more. Reducing energy use in those places can mean significant savings.

600 rebates

For these reasons, the program offers different rebates to disabled Alaskans based on where they live. Rural Alaskans with disabilities can claim rebates of \$500 for an ENERGY STAR refrigerator or freezer and \$300 for a clothes washer or dishwasher.

Through early July, Bolling says Alaskans have requested about 600 applications. That represents roughly a third to a half of the available rebates, he says, depending on how many appliances each person purchases. It's difficult to put a number on energy or financial savings this early, but the response has been good.

The response coming into Bolling's office is positive, with disabled

residents and others pleased that the state is recognizing their special needs. "Especially for people on a fixed income or who have disabilities, this really can help them reduce their energy use," he says.

Alaska town invests in energy efficiency

Small town Tanana, Alaska is off the grid. The city of about 300 people lies 132 mostly roadless miles from Fairbanks, making it easier to reach by airplane than by car.

That means Tanana has to burn diesel to create electricity, pushing up the cost to 76 cents per kilowatt hour - at least 13 times the standard in the lower 48. These high costs make something as simple as powering streetlights very expensive.

To save money and energy, Tanana applied for and received a \$20,000 Energy Efficiency Conservation Block Grant from the U.S. Department of Energy. The money will allow Tanana to replace its older high-pressure sodium streetlights with newer and more energy-efficient LED streetlights.

"Our streetlights right now use about 150 watts. The two brands we're looking at, one is a 25-watt brand that produces more light than the 150-watt lights currently do, and the other uses about 38 watts," says Al "Bear" Ketzler, Tanana's city manager. "So with either product... there's a 300 percent savings."

Because LED streetlights have a lifespan three to four times longer than that of the current lights, Ketzler also expects long-term savings. He estimates that the project will pay for itself in two and a half to three years.

The grant will fund replacement of 22 of the city's 38 streetlights. Because not all of the lights will be replaced, the city hopes to get maximum use out of the LED lights by placing them block by block in the denser areas of Tanana, then in the more widely spaced outlying streets.

The city is currently working on choosing a brand and a contractor, which will be chosen through competitive bidding. Ketzler expects the project to employ at most two people for at least two months. In a smaller town like Tanana, it makes a difference.

"Small communities in Alaska, we don't get these opportunities to upgrade our technologies," he says. "So we feel blessed to have this opportunity to upgrade. We're not going to be able to upgrade all of our streetlights, but we can get 75 percent of them."

- \$500 rebates help make energy efficient appliances more affordable in rural Alaska

- With rates of up to .50 kWh in Alaska, energy efficient appliances reduce energy bills

- Alaska applies Recovery Act funding to low administrative cost rebate program