# Weatherization & Intergovernmental Program (WIP)

Interagency Group on Insular Affairs meeting – WIP Territories Update February 26, 2013

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## **State Energy Program**

The State Energy Program (SEP) is a federally funded program providing resources directly to states and U.S. territories for allocation by them for energy efficiency and renewable energy. The 30-year-old direct SEP formula funding program and the \$3.1 billion under the American Recovery and Reinvestment Act Recovery Act) of 2009 are the SEP grants awarded to states and territories.

With SEP funds and the resources leveraged by them, state and territory energy offices develop and manage a variety of programs geared to increase energy efficiency, reduce energy use and costs, develop alternative energy and renewable energy sources, and reduce reliance on oil produced outside the U.S., all in the interest of helping to assure energy reliability and strengthening America's competitive position and national energy security.

The goals established for the SEP are: (1) Increase energy efficiency to reduce energy costs and consumption for consumers, businesses and government; (2) Reduce reliance on imported energy; and (3) Improve the reliability of electricity and fuel supply and the delivery of energy services.

## **Territory of American Samoa (AS): Recovery Act**

Grant Period: April 24, 2009 to April 30, 2012 Total Funding: \$18.6 million Total Funds Expended (as of February, 2013): \$15.4 million Funds Remaining: \$3.2 million

## Electric Power and Renewable Energy: \$16.8 million allocated

## Completed Projects:

- Distributed Roof-Mounted Grid Intertie PV Arrays: Twenty-four 28 kilowatt (kW) PV systems have been installed on the roof of Government and other buildings using net-metering. All systems are working at 100% capacity.
- Diesel-Organic Cogeneration Power Cycle: Rankine Cycle waste heat from diesel generators to generate electricity while reducing diesel oil usage is completed. Expected reduction of carbon emission is 3% of total emission per year.
- LBJ Tropical Medical Center Solar Water Heater: Completed installation of a solar water heating system designed for available 3,000 gallons-per-day at 140 degrees Fahrenheit. The solar water heating system is estimated to save 16 gallons of diesel fuel per day.

## Project in Progress:

• Utility Intertie 1.5 megawatt (MW) photovoltaic (PV) Array Grid Connected: The PV panels are grounded mounted and are currently under installation at the American Samoa Airport which is near the Tafuna Power Station. The PV array will be operated and maintained by the American Samoa Power Authority.

## Policy Planning and Energy Security: \$1.5 million allocated

Project in Progress:

Anemometry Project (Tula and Aunu'u): American Samoa Power Authority is the sub-recipient
of this project. The project specifics include purchasing and installing anemometry equipment at
thirteen selected sites of Tula and Aunu'u, and documenting wind speed and direction for one
year and analysis of results for potential for wind energy generation. Installations of
anemometry equipment are still underway.

## Weatherization: Approximately \$204,000 allocated

Project in Progress:

• American Samoa received funding from the WAP for the first time in 2009. SEP funding is being used to supplement these WAP funds for the installations of solar water heaters to 32 low-income, qualified customers. Installations are currently underway.

## **Territory of American Samoa: Formula Funding 2009 - 2012**

Funding History:

- 2009: \$113,000
- 2010: \$113,000
- 2011: \$197,000
- 2012: \$142,000
- Total: \$423,000

#### Goals:

- Substantiate Territorial Energy Office Infrastructure through policy, planning and energy security.
- Strengthen education programs through media services, advertisement, and other support systems.

## Commonwealth of the Northern Mariana Islands (CNMI): Recovery Act

Grant Period: April 24, 2009 to April 30, 2012 Total Funding: \$18.7 million Total Funds Expended (as of February, 2013): \$10.1 million Funds Remaining: \$8.6 million

#### Buildings: \$13.3 million allocated

Completed Projects:

- Legislative Air Conditioning Retrofit
- Judicial Air Conditioning and Tinian Courthouse
- Lighting Retrofits (Commonwealth Health Center, Library & Senate)
- Tinting (Commonwealth Health Center , Rota Health Center, & Tinian Health Center)

- Solar Pedestrian & School Zone Flashers
- LED Street Lights (Saipan, Tinian, Rota)
- Commonwealth Utility Corporation (CUC) Turbochargers

## Projects in Progress:

- Parking LED Lights (Tinian and Rota)
- CUC Lube Oil Separators
- CUC Reclaiming Oil Water Separators
- Air Conditioning Retrofit (Rota Health Center)
- Boiler for Commonwealth Health Center
- Air Conditioning Retrofits- (Commerce; Fire Station -CNMI wide-6 locations; Tinian Health Center; Tinian Library; Office of Aging-Rota, Multi-Purpose; Finance: Finance & Accounting, Procurement & Supply and Secretary's Office)
- Lighting Retrofits (Public School System Island Wide & Northern Marianas College)
- Tinting: Commonwealth Health Center (Old Wing); Ports Authority-Saipan; Rota & Tinian Commuter Terminals; Seaports
- LED Street Lights: Additional LED's for Saipan, Rota & Tinian

## Energy Education: \$1 million allocated

Completed Projects:

- "Energy Star Awareness" promotional campaigns: distribution of Energy Efficient Kits which included compact fluorescent light bulbs (CFLs).
- Energy Code and Other Energy-Related Training: Off-Island consultants were contracted to train the new employees as well as key government and private industry employees in charge of building and other energy efficiency retrofits.
- Participation in school activities and school presentations.
- Maintain Energy Resource Center with current energy technology information.

## Policy and Planning: \$1.3 million allocated

Project in Progress:

 Grants Management/ Administration: Program Managers are contracted to assist the CNMI Energy Staff to plan, organize and manage the SEP Recovery Act-funded projects, and develop appropriate metrics for measuring effectiveness and to assist with all aspects of Recovery Act grant management.

## Renewable: \$2.96 million

Completed Projects:

• Green Energy Schools Projects at the Public School System: 1) Installation of the full grid tie-in of solar photovoltaic arrays on Saipan, Rota and Tinian which is complete. 2) Installation of wind turbines at schools in Saipan and Tinian are in progress.

• Renewable Energy Demonstration at the Resource Information Center: Solar panels and a 2.4 kilowatt (kW) wind turbine have been installed at the Center to educate visitors.

## Commonwealth of the Northern Mariana Islands: SEP Formula Funding 2009 - 2012 Funding History:

- 2009: \$112,000
- 2010: \$112,000
- 2011: \$196,000
- 2012: \$141,000
- Total: \$420,000

## Goals:

- Energy Education: Provide schools and the general public information and activities about the Energy Efficiency concepts, applications and science studies to help reduce energy consumption through the distribution of current publications and other resource energy efficiency related materials.
- Policy, Planning & Energy Security: Meet with policy and executive individuals to address energy conservation measures, reduce fuel imports and increase performance of infrastructure and address island energy issues

## **Territory of Guam (GU): Recovery Act**

Grant Period: April 28, 2009 to April 30, 2012 Total Funding: \$19.1 million Total Expended (as of February, 2013): \$8 million Funds Remaining: \$11.1 million

## Retrofit Public Buildings: \$15.2 million allocated

Completed Projects:

- Energy audits have been performed on public buildings, public housing, parks, community recreational centers, public medical facilities and public schools.
- Retrofits at Guam Memorial Hospital, Guam Visitors Bureau, Superior Court, Veteran Affairs are near completion or completed.
- Guam Community College: Installation of building management system, photovoltaic panels and lighting upgrades, solar powered lights in the parking lot. The New Resource Learning Center is the first Gold Leadership in Energy and Environmental Design (LEED) government building in Guam.

#### On-going Project:

• Retrofits of Government of Guam "Twelve Line Agencies" facilities with recommended energy efficiency measures and technologies from the completed audits are ongoing. Energy savings in

buildings after consumption of retrofits will be monitored. Measures include: energy efficient lighting, HVAC, occupancy sensors, roof coating, water devices, VAV, Energy Star equipment and appliances.

## Island Center for Sustainable Future: Approximately \$455,000 allocated

On-going Projects:

- Work with the Micronesian Center for Sustainability at the University of Guam to coordinate sustainable energy development strategies and programs on shared knowledge and cooperation. Establish an MOU between agency and UOG/Island Center for Sustainable Future.
- Develop and coordinate the Pacific Islands Regional Integrated Sustainable Council to address climate change planning, regional energy strategic plans, etc.
- Plan, develop and implement communications portal to provide network of renewable and environmental energy activity (i.e., waste management and recycling).
- Establish task force, headed by Guam Energy Office, to include participation from all major energy end-users.

## Promoting Guam's Building Code: Approximately \$385,000 allocated

On-going Projects:

- Provide training and technical assistance to building owners, developers, architects and building code officials to ensure new and renovated buildings are designed and built with high efficiency measures and to ensure compliance of the building code.
- Hold public hearings to adopt Model Tropical Energy Code and have Model Tropical Energy Code become law.
- Provide code awareness through media outlets and walk-thru website program.

## Procure and Light Right, GovGuam !: Approximately \$355,000 allocated

On-going Projects:

- Develop lighting efficiency standards that require energy efficiency lamps, ballasts, reflectors and other commercial devises are available for public buildings.
- Develop procurement regulations, print procurement manuals and distribute for government use.
- Train public officials from design to installation.
- Establish lighting efficiency standards through policy or regulations.
- Install new lighting efficiency and meters at pilot building project which will showcase data of savings and kilowatts reduction.
- Demonstrate new lighting efficiency in one building versus another without lighting efficiency.

## Appliance Rebate: Approximately \$203,000 allocated

Completed Projects:

• Guam Energy Office partnered with nine vendors to accept rebate vouchers for the purchase made by residents of Energy Star energy efficient appliances which included clothes washer, freezers, refrigerators, split air conditioning units and window air conditioners. Rebates ranged from \$150 to \$500.

## Outreach to Conserve and Be Efficient: Approximately \$910,000 allocated

**On-going Projects:** 

- Print, purchase and distribute current energy publications and other resource energy efficiency related materials to target audiences at workshops, schools, energy expos and Energy Month Activities to increase energy awareness.
- Develop ads and advertise in electronic media.
- Develop and disseminate newsletters, informational brochures, fact sheets, etc.
- Develop ads and advertise in electronic media.
- Hold conferences, expos, Earth Day activities, and informational booths at other energy-related events.

## Administration: Approximately \$1.6 million allocated

On-going Projects:

- Funding of personnel, office operations and other administrative costs.
- Provide training to existing staff with basic operations skills to track data and maintain critical records on project activities.
- Provide services to assist with office operations and project implementations.
- Collect information from Department of Administration when monitoring expenditures.
- Prepare and compile reports to Governor, Legislature and USDOE.

## **Territory of Guam: SEP Formula Funding 2009 - 2012**

Funding:

- 2009: \$118,000
- 2010: \$118,000
- 2011: \$204,000
- 2012: \$148,000
- Total \$440,000

#### Goals:

• Greening Guam's Economy: Monitor, collect and share fuel market information, such as fuel sales by oil companies, doing business on the Island.

• Public Outreach: Promote energy conservation and efficiency which is vital to protecting the Island's quality of life.

## Commonwealth of Puerto Rico (PR): Recovery Act

Grant Period: April 20, 2009 through June 30, 2012 Total Funding: \$37.1 million Total Spending (as of February, 2013): \$36.5 million

Summary of Market Titles, goals and/or projects under each:

## Government Energy Program

- Goal is to improve energy performance of Commonwealth government buildings by the installation of energy efficiency measures (lighting, motion sensors, HVAC, water pumps, cooling towers, etc.) and/or the addition of significant photovoltaic systems.
- Nine government buildings were selected for upgrade work based on a competitive grant solicitation and thorough audits of applicants. The combined annual energy savings for these projects is 8,075,653 kWh or annual energy-cost savings of about \$2.2 million for the Commonwealth using the current Puerto Rico electric rate of \$.27/kwh.

## Sun Energy Program

- Goal is to provide 50 percent rebates for the purchase and installation of solar photovoltaic systems in both the residential and commercial market sectors.
- A total of 115 solar photovoltaic projects were completed under this market title. A total of 1,300 kilowatts were installed, representing annual savings of 2.1 million kilowatt hours. Based on the electricity purchase price in Puerto Rico, this amounts to an annual savings of close to \$563,000. Due to the overwhelming acceptance of this program, the Puerto Rico government created the Green Energy Fund with similar goals and a programmatic budget of \$290 million to extend through 2018; the Fund is similar to the Sun Energy Market title, but includes no Recovery Act funds.

## **Building Retrofit Program**

- Goal is to provide rebates to commercial building owners for the installation of energy efficient equipment and/or measures to lower energy consumption.
- A total of 89 commercial building projects were approved and completed, representing annual savings of 25.8 million kWh and, using Puerto Rico's electricity costs of \$.27/kWh, total annual energy-cost savings of \$6.97 million. Each applicant was required to have a thorough energy audit completed prior to selection, providing professional recommendations about how to lower that building's energy consumption.

## Agricultural Renewable Energy Program

- The Puerto Rico Energy Affairs Administration (PREAA) provided up to 40 percent of the cost of a project using Recovery Act dollars, and PREAA teamed with the Puerto Rico Department of Agriculture, which provided an equal matching amount of up to 40 percent of project costs, leaving the recipient needing to provide only 20 percent of the total cost of the project.
- Goal is to provide rebates in the agricultural sector for the purchase and installation of renewable energy systems.
- A total of 11 projects, all primarily solar photovoltaic installations, were completed, with a combined annual savings of 1.4 million kWh, creating annual energy-cost savings of \$367,000 (at \$.27/kWh).

## Wind Energy Program

- Goal is to provide rebates for the purchase and installation of wind energy systems in the commercial and industrial market sectors.
- Two wind projects were installed, each of the maximum allowable size 20 KW for this program. The expected annual energy savings from these projects is 84,096 kWh, representing a combined savings of \$22,705.92 annually.

## Solar Water Heater Program

- Goal is to provide a \$1,000 rebate for the purchase and installation of solar water heating systems in the residential market sector.
- A total of 257 solar water heaters were installed, providing annual savings of 700,000 kWh. Based on Puerto Rico's electricity rate of \$.27/kWh, this represents total annual savings of \$189,000.

#### Street Lighting Retrofit Program

- Goal: is to replace aging and inefficient street lighting technology with high efficiency LED lamps and fixtures in a variety of settings around Puerto Rico.
- This program replaced 4,170 street lights on roads in Puerto Rico. The annual energy savings is 803,559 kWh, representing annual savings of \$216,960.93. PREAA's intention was to have this program serve as a "pilot" for the Department of Transportation, showing that the lights require less maintenance, last longer, save energy, and comply with all necessary specifications.

## Traffic Lighting Retrofit Program

- Goal is to replace traffic control lights at intersections all over Puerto Rico with new, high efficiency LED lamps.
- This program retrofitted 4,803 traffic lights on roads all over Puerto Rico, using LED lamp technology. The annual energy savings is 4,549,281.53 kWh, representing an annual savings \$1,228,306.01.

#### **Revolving Loan Program**

- Goal is to provide up to 50% loans to assist SEP renewable energy projects and energy retrofit projects in the commercial market sector.
- The RLF work was sub-contracted to a Puerto Rican government-owned development bank and originally had \$2.4M assigned to it. The bank, however, had requirements which were discouraging to borrowers and most applicants turned away before completing a borrowing.
   PREAA then tried to enlist private banks in the creation of a loan loss reserve, but the private banks were not interested and decided to provide the service on their own.

#### Energy Education and Mass Media Outreach Program

- Goal is to expand PREAA's energy conservation public awareness activities and promote energy efficiency and renewable energy through mass media.
- Over 200 presentations were given to school classrooms, and an extensive mass media outreach effort was made to the general public using magazines, posters, brochures, radio and television spots, university lectures and presentations, etc.

#### Codes and Standards Program

- Goal is to upgrade and create new building codes, standards, and regulations for Puerto Rico so that they meet the standards set out in the Governor's Assurances, and to provide training for stakeholders and practitioners in the implementation of the new codes.
- A consulting firm was hired to work with the engineering staff at PREAA to revise Puerto Rico building codes generally. The first residential building code for Puerto Rico was adopted in 2010 and benefited significantly from the ARRA investment. The same consulting firm also reviewed existing procurement codes and created new legislation, amendments, and regulations to achieve energy efficiency in public buildings by means of Energy Saving Performance Contracting. As part of the codes program, PREAA also provided, using ASHRAE trainers, a series of codes and standards trainings for industry professionals. A total of 950 energy related professionals were impacted by the program.

#### Administration Management Program

- Goal is to provide the necessary support, supervisory monitoring, verification activities, etc., to successfully administer and manage all aspects of the ARRA award programs, including the establishment of a measurement and verification protocol for quality assurance and final inspections of all projects.
- Money in this market title covered all the administrative and management expenses related to successfully completing the ARRA award's programs. It included personnel and materials to support them, as well as some of the costs of presentations made under the Mass Media and Outreach Program.

## Commonwealth of PR: SEP Formula Funding 2009-2012

Funding History:

- 2009: \$316,000
- 2010: \$316,000
- 2011: \$473,000
- 2012: \$372,000
- Total: \$1.47 million

Program Year (PY) 2009 marked the end of a five-year annual formula award cycle for Puerto Rico. They concluded that year with about \$1.3M in unexpended funds, accumulated over the five-year life of the award period, and returned that amount to the US Treasury to close the grant.

Puerto Rico is currently in year three of another five-year award cycle which began on October 1, 2010. Due to a focus on successfully completing the Recovery Act award administration and management effort (which concluded on June 30, 2012), attention to the SEP annual formula grant in both PY2010 and PY2011 was minimal. Because those years are "inside" a five-year grant cycle, unexpended funds were approved for carry over to PY2012, the current program year.

Puerto Rico, therefore, began PY2012, on 10/1/2012, with \$1.2 million ready to be spent on PY2012 activities. This amount includes the state match amount, required under SEP regulations to be at least 20 percent of the award. And Puerto Rico has added about \$60,000 in PVE funds to its PY2012 budget.

Summary of Market Titles, goals and/or projects under each:

## Administration Management - \$713,000

• Goal is to support and manage all aspects of the activities to be carried out under this SEP annual grant, including personnel salaries and benefits, supervision of personnel, planning, coordination, and monitoring of the programs, project inspections, administrative procedures, all reporting, and related activities.

## Energy Audits Program – \$20,000

- Goal is to provide money for the conduct of energy audits in at least three Puerto Rico government-owned facilities.
- Audits will be provided to at least three government buildings as a result of a competitive process, with the understanding that audited buildings will become eligible for participation in the next market title, the Renewable Energy and Retrofit Program.

#### Renewable Energy and Retrofit - \$431,000

- Goal is to provide grants to Puerto Rico government buildings for the purchase and installation of certain energy efficiency measures and/or solar photovoltaic energy systems. The energy office is trying to promote the local solar industry.
- In combination with the audit market title (see #2, directly above), PREAA will seek three government owned buildings which could benefit from the installation of large PV systems and/or significant energy efficiency upgrades.

## Workshops, Trainings, and Education Program - \$20,000

• Goal is to expand current PREAA energy conservation public awareness activities and promote energy efficiency through mass media, seminars, workshops, and trainings.

## U.S. Virgin Islands (USVI): Recovery Act

Grant period: April 23, 2009 to December 31, 2012 Total Funding: \$20.7 million Funds Obligated (as of February, 2013): \$20.2 million

Summary of Market Titles, goals and/or projects under each:

#### Administrative Program Support: \$2.8 million

• Goal is to provide funding to U.S. Virgin Islands Energy Office (VIEO) to hire additional staff for programmatic and financial management, as well as for conducting reporting, monitoring and compliance activities.

#### Discretionary Grant Program: \$1 million

- Goal is to allow a range of diverse and socially beneficial projects access to discretionary grant funds for energy efficiency projects.
- Project is providing grants to schools and non-profits through a competitive process for a range of activities including building retrofits, energy education and outreach, and renewable energy projects. To date, 21 applications have been approved; additional projects are pending.
- Projects which have been awarded include: St. Croix Foundation, WTJX, St. Croix Country Day School, Pistarckle Theater, St. Thomas Humane Society, Virgin Islands Environmental Resource Station, Nana Baby Home, Montessori School, St. Croix Animal Shelter, St. Thomas Reform Church, UVI—Community Education Lifelong Learning, St. Ann's Catholic Church, Lutheran Church of the Reformation, St. Croix Reformed Church, The Garden School, St. Joseph's High School, Legal Services of the V.I., The Gift Hill School, Boy Scouts of America, The Village, Helping Children Work

## Energy Alliance Incentive Program: \$7.5 million

- Goal is to demonstrate the value of energy savings performance contracting (ESPC) to the USVI Government in order to stimulate additional investment.
- SEP funding is providing grants to USVI government agencies to implement energy projects under a master ESPC contract vehicle immediately.
- Energy and water efficiency upgrades at 11 schools on St. Thomas and St. Croix including: Cancryn JHS, Benjamin Oliver ES, Bochulte JHS, Bowsky ES, Charlotte Amalie HS, Ken HS, Lockhart ES, Christian JHS, Woodson JHS, Lew Muckle ES, Central HS.
- Energy savings are projected to be \$1.3 million in energy costs for the first year.

## Energy Star Appliance Rebate: \$908,000

- Goal is to incentivize the purchase of energy efficient appliance within the community.
- This rebate program conforms to the SEEARP guidelines for energy efficient appliance rebates and has provided more than \$2,000 in cash payments to local residents for the purchase of appliances which both stimulate the local economy and reduce energy consumption.

## Hybrid and Electric Vehicle Rebate Program: \$361,400

- Goal is to incentivize the purchase of energy efficient vehicles.
- This program provides cash rebates to local residents for the purchase of hybrid and electric, as well as other highly fuel efficient, vehicles.

## Public Education Outreach: \$357,000

- Goals are to communicate with the public both the importance of energy conservation as well as the programs being implemented by the VIEO that they can take advantage of.
- Providing funding for the VIEO to advertise its ARRA programs through local media sources, including newspaper, television, and radio. This project also supports the VIEO's presence in the community through the production of informational videos and testimonials and maintaining a presence at local events.

## Renewable Energy Rebate Program: \$3.97 million

- Goal is to incentivize the purchase and installation of renewable energy systems which reduce the demand on imported fuel oil for base load generation.
- This program has provided over 850 rebates to local residents for the installation of solar photovoltaic systems, solar thermal hot water systems, and small wind turbines.

## Solar Thermal in Moderate Housing Communities: \$600,000

- Goal is to reduce the energy costs to residents of medium-income housing units.
- This program provides funding for the installation of solar hot water systems in moderate income publicly-owned housing units. To date, 5 solar hot water systems have been installed and work is on-going for additional installations.

## Solar Thermal Installers Training Program: \$300,000

- Goal is to develop the capacity of the local workforce to participate in, and benefit from, the "green economy."
- The Solar Thermal Installers Training Program is providing vocational training to both students and tradesmen to become certified solar thermal installers. To date, there have been two sessions on St. Thomas and two sessions on St. Croix which have certified 48 people, several of whom are currently employed as installers in the USVI.

## Solar Thermal Revolving Loan Program: \$2.3 million

- Goal is to provide homeowners with an affordable means to reduce both their energy costs from heating water, and dependence on imported fuel oil.
- The Solar Thermal Revolving Loan Fund is combined with the Renewable Energy Rebate Program to create an innovative program for financing residential solar thermal systems. The loan is capped at \$3,500 and can provide up to 50% of the installed cost of the system. In addition, a rebate for up to \$2,500 (not to exceed 50% of the total installed cost of the system) is available to offset the remainder of the system. This program is notable because it allows homeowners to avoid the high up-front cost associated with the more efficient technology, and the investment is generally expected to be cash-flow positive as the savings are greater than the monthly payment (due to the high cost of electricity, approximately \$0.33/kilowatt hour).

## Tropical Energy Code Implementation: \$250,000

- Goal is to bring USVI energy codes up to date, increase applicability, and improve compliance.
- The first focus of this market title is to adapt IECC 2009 energy codes for the specific Islands climate. The second is to provide education and training for building code inspectors in order to increase rates of compliance and the capacity to enforce existing codes.

#### Wind Resource Data Mapping Program: \$243,000

- Goal is to improve wind resource data and incentivize private development.
- This project funds a professional services contract with WeatherFlow Inc. for the temporary installation of towers and anemometers to characterize wind resources and several sites throughout the Virgin Islands. The improved wind data can be used to inform future decisions regarding wind energy development.

## U.S. Virgin Islands (USVI): SEP Formula Funding 2009-2012

Funding History:

- 2009: \$120,000
- 2010: \$120,000
- 2011: \$220,000
- 2012: \$115,000
- Total: \$575,00

# U.S. Department of Energy Office of Energy Efficiency and Renewable Energy - Energy Efficiency and Conservation Block Grant Program (EECBG)

The U.S. Department of Energy's (U.S. DOE) Energy Efficiency and Conservation Block Grant (EECBG) Program, funded for the first time by the American Recovery and Reinvestment Act (Recovery Act) of 2009, represents a Presidential priority to deploy the cheapest, cleanest and most reliable energy technologies to local governments across the country. It is intended to assist U.S. cities, counties, states, territories and Indian tribes to develop, promote, implement, and manage energy efficiency and conservation projects and programs designed to:

- Reduce fossil fuel emissions;
- Reduce the total energy use of the eligible entities;
- Improve energy efficiency in the transportation, building, and other appropriate sectors; and
- Create and retain jobs.

#### **Territory of American Samoa**

Grant period: 12/28/2009 – 9/30/2013 Total Funding: \$9.6 million Total Spending (as of February, 2013): \$5.7 million Funds Remaining: \$3.9 million

The majority of American Samoa's Territorial Energy Office's (TEO) EECBG funding is directed toward performing energy efficiency retrofits on government buildings. This is a two-step process: audits first, followed by retrofits. This, combined with American Samoa's procurement process has resulted in slower than expected progress on most of the TEO projects. When it became clear that the work would not be completed by the award expiration date of December 27, 2012, the TEO requested and received an award extension to September 2013.

The TEO experienced setbacks due to personnel and accounting matters which were soon resolved. In January 2013, three key TEO personnel departed, leaving in question whether an appropriate staff person with sufficient expertise in project management or construction oversight will be in place to properly manage the EECBG award. It is the hope of EECBG that the quality and progress of the ongoing retrofit work will not suffer from this lack of management and oversight.

#### Activity 1: Energy Efficiency and Conservation Audits - \$289,000

- Overview: This activity funds energy audits of approximately 50 government, non-profit, and commercial buildings to identify the best candidates for efficiency retrofits under Activity 2.
- Status: Audits are almost complete; TEO needs to identify several more commercial buildings to audits so the consultant can fulfill the contract.

## Activity 2: Building Retrofits for Energy Efficiency and Conservation - \$6.3 million

- Overview: This activity implements recommendations resulting from building audits. The retrofit of the American Samoa Environmental Protection Agency (ASEPA) building will serve as a benchmark for the remaining retrofits and will be the first LEED certified facility in the South Pacific.
- Status: The energy audits from Activity 1 resulted in recommendations for energy efficiency retrofits for building lighting, insulation and HVAC systems. Separate procurements were completed for the lighting, insulation, HVAC contractors, and the ASEPA building as a whole. The lighting, insulation, and ASEPA retrofit work are now over 90% complete. The HVAC air conditioning units are on order and are expected to arrive in May 2013. Preparation for the AC retrofits has been started and will be completed once the materials are received on island. In addition, energy efficiency improvements to the community college and several other buildings have been completed.

## Activity 3: Upgrade the Building Code: Energy Sections - \$259,000

- Overview: This activity is revising the energy section of the American Samoa Building Code.
- Status: The TEO signed an agreement with Battelle, the maintenance and operations contractor for Pacific Northwest National Labs, to provide energy code development support. The energy code has been drafted and the Attorney General's Office is now working on legislation to adopt the code.

## Activity 4: Energy Distribution: Increase Energy Efficiency - \$850,000

- Overview: A sub-grant to American Samoa Power Authority (ASPA) will fund the installation of a new 13.2 Kilovolt (kV) feeder line at the Tafuna Power Plant. The existing feeder for the western part of the island is at 85% capacity, which translates into significant energy losses. By splitting the load, energy savings will be realized while increasing reliability.
- Status: The distribution line upgrade has been completed. However, ASPA discovered that they were not able to obtain right of way approval for routing a section underground, as planned. Because the section remained above ground, the total cost for the project was lower than anticipated and approximately \$150,000 remains in the sub-grant.

#### Activity 6: Energy Education in American Samoa - \$128,000

• Overview: Funding was provided to American Samoa Community College (ASCC) to develop a grassroots effort to increase energy literacy among young Samoans. ASCC will promote energy-related careers and three students will be hired part-time to extend energy awareness into

schools. The students will make presentations in the classroom targeting 5<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup> graders.

• Status: This activity has been successfully completed. ASCC determined that the entire original amount of the sub-award, \$298,500, was not needed. The sub-award was reduced to \$128,160 and the extra funding was moved to other activities.

## Activity 8: Administration - \$959,000

• Overview: Funding is used for project administration and management personnel, vehicle lease, office supplies, and other requirements.

## Activity 9: PV Systems on Government Buildings - \$337,522

- Overview: This activity is intended to install solar photovoltaic (PV) systems on governmentowned buildings.
- Status: An RFP for the PV system supply and installation contractor was released and several potential contractors submitted proposals. A PV system for the ASEPA building was procured.

## Activity 10: Recycling Program - \$464,000

- Overview: This activity to set up a recycling program for American Samoa was added to decrease the quantity of recyclable waste in watersheds, reefs, and landfills.
- Status: An agreement was reached with a commercial recycler to implement a residential recycling program. Equipment for the recycling program, a flatbed truck, and a recycled materials bailer are on order and may be received in February 2013.

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## Commonwealth of the Northern Mariana Islands (CNMI)

Grant period: 2/12/2010 – 2/11/2013 Total Funding: \$9.6 million Total Spending (as of February, 2013): \$3.8 million Funds Remaining: \$5.8 million

Prior to 2009, the CNMI Energy Division had an annual budget of approximately \$180,000 and two employees. The total amount of Recovery Act funding awarded to the Energy Division by the Department of Energy now exceeds \$30 million. The EECBG program, in particular, has been very challenging for the Energy Division to manage due to the large number and complexity of activities selected for the funding. The EECBG program staff has now been increased to eight personnel.

To make up for a shortfall in government revenue, the Governor imposed austerity measures on the entire CNMI government in 2010. One measure, closure of non-essential government offices every Friday, was imposed on the Energy Division until October 2012. The weekly closure of the Energy Division made it difficult for the Energy Division to execute on Recovery Act projects as personnel were unable to work full time to complete projects and expend funding on schedule. The Friday closures also resulted in reduced support from other government agencies for the processing of procurements and payment requests. During the past year, two more activities had to be canceled due to the Energy Division not having completed procurements for contractors. The budgets for those activities were subsequently moved into other existing activities - primarily the Residential Weatherization Incentive Program and the Residential Cool Roof Incentive Program.

The EECBG award's period of performance expired on February 11, 2013. A complete request for award extension was not submitted to DOE until that date, so there was insufficient time for review or approved before award expiration. The extension request and supporting documents are now with the EECBG Program Office for review and concurrence. A vendor contract for purchase of CFL light bulbs and diesel wood chippers is on hold pending approval of the extension request.

#### Activity 1: Residential CFL Exchange Program - \$180,000

- Overview: The CNMI Energy Division will conduct a compact fluorescent light (CFL) give-away event once a year on each of the three main CNMI islands. CFLs in a variety of commonly used wattages will be provided to CNMI residents with proof of a utility bill.
- Status: The first procurement for CFL bulbs was completed and the CFLs have all been disbursed. The contract for a second lot of CFLs is on hold pending approval of the award extension.

#### Activity 2: Residential EnergyStar<sup>®</sup> Appliance Incentive Program - \$289,000

• Overview: This activity is modeled after the CNMI State Energy Efficient Appliance Rebate Program (SEEARP). The rebates are for up to \$1,400 and apply to the purchase of up to two air

conditioning room units, and/or one refrigerator, and/or one washing machine. The EECBG program requires an existing appliance to be replaced.

• Status: This program is being implemented in-house by Energy Division staff and is in progress. Approximately 640 of the target 850 rebate vouchers have been issued and the redemption period has been reduced from 90 to 30 days.

## Activity 3: Residential Weatherization Incentive Program - \$759,000

- Overview: This activity is modeled after the CNMI Weatherization Assistance Program (WAP), but will assist residents that are not covered under WAP or other incentive programs. The EECBG program includes only replacement of incandescent bulbs with CFL bulbs and replacement of inefficient refrigerators and air conditioners. Energy Division staff will conduct audits on homes to determine which weatherization measures to apply.
- Status: This program is being implemented in-house by Energy Division staff. As of February 2013, 227 of the target 440 homes have been weatherized.

## Activity 4: Residential Cool Roof Incentive Program - \$1.98 million

- Overview: CNMI residents may apply to receive the installation of a Cool Roof worth up to \$2,300 per house. Vendors will provide a Cool Roof estimate to the homeowner and the Energy Office. Any costs exceeding the \$2,300 allotment will be paid by the homeowner.
- Status: This program is being implemented in-house by Energy Division staff and is now in progress. To date, 110 of the target 440 homes have been completed.

#### Activity 6: Government Building Cool Roof Program - \$427,000

- Overview: This activity involves installation of Cool Roof reflective materials on 15 governmentowned buildings on the main island of Saipan.
- Status: This activity is 100% complete.

## Activity 7: Residential Recycling Program - \$461,000

- Overview: This activity involves development and establishment of a residential recycling program for the main island of Saipan. Materials to be recycled will include paper, cardboard, aluminum cans, and plastic bottles and containers. Informational brochures and collection bins will be provided to residents.
- Status: The residential recycling bins have been procured and received. The program will be announced to residents and kicked-off in February 2013.

## Activity 8: Commercial Diesel Wood Chippers - \$403,000

 Overview: Four commercial diesel wood chippers will be purchased and installed on Saipan, Rota, and Tinian for grinding wood waste. The intent of the grinder is to reroute debris from the Marpi landfill (prolonging the useful life of the landfill) and to generate materials that may be recycled and/or reused in landscaping projects throughout CNMI. • Status: The procurement was released for the fifth time in November 2012. A vendor selection has been made, but the contract is on hold pending approval of the award extension.

## Activity 13: Administration - \$583,000

• Overview: Funding for project administration and management personnel, supplies, and other administrative requirements.

## Activity 14: Commonwealth Utility Commission (CUC) Power Plant Retrofits - \$4.5 million

- Overview: CUC power plant #1 will be retrofitted with radiator replacements, engine rebuilds, and replacement of engine mechanical governors with high speed electronic governors. With these planned upgrades, CUC will be able to operate fewer engines to supply the same loads which will result in very large energy savings.
- Status: All equipment required for the retrofits is on order and the new radiators should begin arriving in February 2013.

## **Territory of Guam**

Grant period: 3/19/2010 – 3/18/2013 (*Pending No-Cost Time Extension request to 9/30/2013*) Total Funding: \$9.6 million Total Spent (as of February, 2013): \$5 million Funds Remaining: \$4.6 million

This grant to the Guam Energy Office (GEO) was awarded March 19, 2010. A six-month extension request to the grant deadline is being reviewed by DOE. As of February, 2013, approximately 52 percent of grant funds had been drawn down. The GEO is current on reporting requirements and fourth quarter reports have been reviewed and corrections are pending. An amendment to add a Renewable Energy Activity has been approved. Based on regular calls with Grantee and their quarterly reports, progress has been shown on all activities.

## Activity 1: Administration, Project Management and Internal Implementation - \$494,000

- Overview: Funding for project administration and management personnel, supplies and other administrative and implementation requirements.
- Status: As of December 31, approximately 75% of the Administration budget was spent.

## Activity 2: Community Education & Outreach - \$286,210

• Overview: There are three components to this Activity: 1) The GEO entered into an MOU with the University of Guam to increase energy awareness and promote conservation of island resources, inclusive of holding workshops, training, and educational outreach; 2) the GEO will contract with specific institutions to conduct training in specialized areas such as solar systems design application, building commissioning, and cool roof technologies; 3) GEO will execute an

MOU by the end of February 2013 with Island-Wide Beautification Project, a government organization that promotes "Reduce, Reuse & Recycle" to keep Guam clean and green.

• Status: As of December 31 2012, 57% of budgeted funds were spent under this Activity. Solar water heater installation training was conducted as part of 17 different workshops that attracted nearly 2,100 people. Media campaigns to provide energy use/conservation are also in progress.

## Activity 3: Financial Incentives for Building Improvements - \$1.4 million

- Overview: Funding is being made available to non-profit organizations for the purpose of improving their buildings with energy efficiency technologies to reduce energy consumption and provide significant dollar savings that could be redirected for other necessities.
- Status: As of December 31, 70% of the budget was spent. Eight energy audits have been conducted totaling 29,280 sq. ft. with energy savings projected at 89,000 kWh. Eight sub-grantees have completed or are in process of completing energy efficiency retrofits. Due to shipment delays, an extension to deadline was requested.

## Activity 4: LED & other Energy Efficient Lighting - \$2.6 million

- Overview: Replacement of old metal halide and high pressure sodium light bulbs along highway and major suburban roadways with energy saving LED lights and/or induction lights.
- Status: As of December 31, 2012, approximately 95% of the budget on this activity was spent. Guam Power Authority and contractor Johnson Control evaluated and installed 1,568 energy efficient lights on roadways and sidewalks.

## Activity 6: Retrofitting Public Facilities - \$3.8 million

- Overview: The GEO will be working with Guam Power Authority (GPA) on energy efficiency retrofits at the following public facilities: Adelup/Government Complex, Finegayan E.S., KGTF, Guam Community College, and Chamorro Village.
- Status: GPA is administering this Activity and as of December 31, 2012, 23% of budget had been spent. The energy audits under Activity #10, completed September 2012, developed the scope of work. Due to shipment delays, retrofit work only began in January 2013.

## Activity 9: Solar Water Heater Rebate Program - \$300,000

- Overview: A rebate of \$3,000 will be offered to residents for installing solar water heaters; it is anticipated that residents will pay an additional \$1,800 on top of the credit. The GEO will be working with Guam Power Authority on solar water heater installation and the processing of rebates.
- Status: As of December 31, 2012, no funds had been expended. This program allows for 50 rebates. As of January 2013, 37 applicants had been approved; 10 units are currently being installed.

## Activity 10: Energy Audits on Public Facilities - \$357,000

- Overview: The GEO will contract with Taniguchi Ruth Makio Architects to conduct energy audits on six public buildings: Adelup/Government Complex, GSA, Finegayan E.S., George Washington H.S., KGTF, and the Government House.
- Status: As of December 31, 2012, no funds had been expended. Energy audits were conducted on five public buildings, totaling 304,150 square feet to develop scope of work for Activity #6. Vendor will also provide project management services.

## Activity 11: Renewable Energy for Sustainable Community \$914,000

- Overview: Small scale wind and solar PV projects to be installed on public/university facilities.
- Status: As of December 31, no funds have been expended. Due to complaints the wind tower will either be relocated of funds will be reallocated. The solar PV project is in progress.

## **U.S Virgin Islands**

Grant Period: 9/28/2009 - 6/27/2013 Total Funding: \$9.6 million Total Spending (as of February, 2013): \$8.8 million Funds Remaining: \$.8 million

Activity 1: Virgin Islands Water and Power Authority Street Lighting System Upgrade - \$2.5 million

- Overview: The first is a street lighting system upgrade being carried out by the Virgin Islands Water and Power Authority (VIWAPA) with a budget of \$2.5 million. This project aims to replace nearly 1,000 conventional high pressure sodium street lights with LED street lights, which last twice as long and use less than half the energy of the high pressure sodium lights. In addition to the light replacement, VIWAPA will also install a lighting management system that will allow them to monitor and track the operation of every light in their entire network. This system will greatly reduce the time needed to respond to problems and will increase the overall system efficiency.
- Status: As of February 7, 2013, all 973 bulbs had been installed and the lighting management system was nearing 100% completion.

#### Activity 2: Landfill Gas to Energy Project - \$3 million

• Overview: The next project is a landfill gas to energy conversion project being carried out by the Virgin Islands Waste Management Authority with a budget of \$3,014,046. This project is simultaneously prevents the release of methane, a greenhouse gas much more potent than carbon dioxide, into the atmosphere and at the same time generates electricity to power Commonwealth facilities. Currently, methane gas collection wells and manifolds are being constructed under an EPA grant at the Bovoni Landfill on St. Thomas. EECBG funds will be used

to purchase equipment to collect, treat, and burn this gas in order to create electricity. Power generated will be used at the adjacent Mangrove Lagoon Waste Water Treatment Plant, and any excess power will be fed into the grid.

• Status: 100% complete.

#### Activity 3: Airport PV Energy Installation - \$2.9 million

- Overview: The third project is the installation of a solar array being carried out by the Virgin Islands Port Authority with a budget of \$2,949,000. A 335 kW array will be installed adjacent to the main runway at Cyril E. King airport on St. Thomas. The power produced will be used at the airport to reduce their grid demand, and the high visibility of the array will emphasize USVI's commitment to renewable energy.
- Status: 100% complete.

## Activity 4: LED Traffic Signal Light Retrofit Program - \$965,000

- Overview: The fourth project is a traffic signal light retrofit program being carried out by the Virgin Islands Department of Public Works (VIDPW) with a budget of \$964,955. The VIDPW will replace incandescent light bulbs at 56 traffic signalized locations with LED signal lights and upgrade existing high pressure sodium lights to LED lights in those intersections. This represents all the signalized intersections on St. Thomas and St. Croix. LED traffic signals use less than 20% of the energy of conventional incandescent signal lights. VIDPW will also install solar powered lights in 10 bus shelters on St. Thomas and St. Croix. These lights will replace currently installed ineffective grid-powered lights, increase passenger safety, and allowing bus operators to see waiting commuters at night. ]
- Status: A contract has been awarded for the St. Croix boardwalk lights. The LED traffic signal bulbs have been purchased and the payment is currently pending. Installation of the LED signal bulbs and street lights is expected to begin shortly.

# Activity 5: Government Energy Demand Reduction Program / Comprehensive Energy Action Plan - \$165,499

- Overview: The last project is the drafting of a plan for the Government of the Virgin Islands' energy demand reduction initiatives. This project is being carried out by the VI SEO with a budget of \$165,499. Through this effort, the USVI will measure energy consumption in an effort to find areas for potential reductions, implement energy efficient procurement standards and building codes, and promote the use of energy service companies (ESCOs) to finance energy efficient and renewable energy projects. In addition, the USVI will continue their ongoing comprehensive energy planning efforts through the development of an action plan to implement the Virgin Islands Energy Strategy, a document that encompasses many different aspects of the energy demands of the Islands.
- Status: The SEO and other Energy Development in Island Nations (EDIN) members continue to meet in working groups to find ways to achieve the Governor's goal of a 60% reduction in fossil

fuel dependence. Grant administration and oversight continued and staff began the process of entering building data in the Energy Star Portfolio Manager. Meetings were held with agency heads within the executive branch of Government, and energy efficiency presentations and preliminary walk-through audits were scheduled and conducted.

## **Commonwealth of Puerto Rico**

Grant Period: 9/28/2009 - 3/31/2013 Total Funding: \$9.6 million Total Spending (as of February, 2013): \$7.8 million Funds Remaining: \$1.8 million

## Activity 1: Community Education and Orientation Regarding Energy Efficiency Strategy - \$30,000

- Overview: The purpose of this activity is to educate local communities on energy conservation and efficiency measures that can be implemented to lower their energy costs.
- Status: The SEO continues to publish its energy magazine, "La Mejor Idea." Additional funds will be moved from Activity 4 to this activity to expand on current efforts, with a focus on reaching children. Recently a guide for elementary school teachers was created so they could introduce renewable energy and energy efficiency into their curriculum.

## Activity 2: Sub-grants to Community Based Organizations - \$1.1 million

- Overview: This activity provides grants to non-profit organizations to carry out energy efficiency retrofits on their facilities.
- Status: 100% complete

## Activity 3: Sub-grants to 37 Municipalities with Populations of less than 35,000 habitants - \$6.3 million

- Overview: This activity provides the required sub-grants to ineligible entities constituting 60% or more of the total allocation.
- Status: All 37 sub-grantees are under contract. Of the 37 sub-grantees, 18 have fully completed their project, while 19 are nearing completion.

# Activity 4: Establishment of Preventative Maintenance Program for Government Buildings and Facilities - \$60,500

- Overview: This activity was designed to cover the implementation of a preventative maintenance program for all sub-grantees receiving funds.
- Status: This activity has been cancelled and funds will be reprogrammed to the Community Education activity.

# Activity 5: Energy Retrofit and Improvements to Several Local Government Agency Facilities - \$1.8 million

• Overview: This activity supports energy efficiency retrofits to local government agency facilities.

• Status: 100% complete

Activity 6: Investment Grade Energy Audits to Local Government Agency Facilities - \$301,400

- Overview: Under this activity, audits will be conducted to determine which local government agency facilities would benefit most from implementing energy efficiency measures.
- Status: 100% complete

# U.S. Department of Energy Office of Energy Efficiency and Renewable Energy – Weatherization Assistance Program (WAP)

As of December 31, 2012

The U.S. Department of Energy's Weatherization Assistance Program (WAP) enables low-income families to permanently reduce their energy bills and improve the health and safety of their homes. Funds are used to improve the energy performance of dwellings by utilizing the most advanced technologies and testing protocols available in the housing industry.

The WAP provides funding to all 50 states, the District of Columbia, five U.S. territories, and three Native American tribes, which manage the day-to-day implementation of the Program. These governments, in turn, fund a network of over 1,000 local community action agencies, nonprofit organizations, and local governments.

## American Recovery and Reinvestment Act of 2009 (ARRA) Allocation: \$5 billion Production Goal: 635,000 units

The WAP network weatherized approximately 790,000 homes through December 2012, exceeding its ARRA production target by more than 18 percent. The WAP created as many as 15,400 new full time, living wage jobs during the height of the Recovery Act, ranking it between 2nd and 8th among the 200+ Recovery Act programs in operation during that time. As the Program reaches its conclusion, the number of jobs supported by the Recovery Act and the production of weatherized homes reduces accordingly. However, the delivery of Weatherization services to the 790,000 homes is estimated to save approximately \$420 million in energy costs in just the first year. These savings compound over time since many energy efficiency measures installed on these homes have extended life expectancies and their savings continues.

#### **Annual Appropriated Funds**

Allocation:

- FY 09: \$450 million
- FY 10: \$210 million
- FY 11: \$174.3 million
- FY 12: \$65 million

#### **Production Goal:**

- FY 09: 70,000 units
- FY 10: 45,000 units
- FY 11: 30,000 units

Over the last four years, the WAP network weatherized approximately 229,000 homes with annual appropriated funds. Nationwide, the weatherization of 229,000 homes is estimated to save approximately \$120 million in energy costs in just the first year.

#### **Territory of American Samoa: Recovery Act**

Grant Period: 4/1/09 – 12/31/12 Total Award: \$896,449 Production Goal: 275 units

Weatherization funds are being used to make low-income homes more efficient. Based on a priority list of items shown to be efficient in American Samoa, TEO installs energy efficient refrigerators, room air conditioners, fluorescent lighting, and low-flow water fixtures. Solar water heaters are also on the list, but cannot be found at a cost to meet the efficiency requirements of the program (below \$5,000). Recovery Act funds were used to weatherize homes on the main island of Tutuila. American Samoa completed all Recovery Act work by the expiration date. The grant is currently in the close-out process.

#### Status:

Spending		Production		Jobs Supported	Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units (through Dec. '12)	% of Production Goal Completed	Average Number of Jobs Supported (Jul '09 - Dec '12)	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$889,778	99.3%	517	188%	3	14,993	\$277,000

## **Territory of American Samoa: Annual Funds**

Grant Period: 10/1/09 – 9/30/10 Total Award: \$196,784 Production Goal: 47

During the first year, the grantee developed capacity and infrastructure to operate the program. No homes were weatherized.

Status:

Spending		Product	ion	Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$116,380	59%	48	102.1%	1,392	\$25,000

Grant Period: 10/1/10 – 9/30/11 Total Award: \$154,860 Production Goal: 94

This grant is also used to perform weatherization work on the neighboring Manu'a Islands.

Status:

Spending		Product	ion	Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$165,936	107%	58	61.7%	1,682	\$31,000

Grant Period: 10/1/11 – 9/30/12 Total Award: \$151,424 Production Goal: 140 Transportation problems from Tutuila to Manu'a were resolved and work was completed in the Manu'a Islands.

Status:

Spending		Product	ion	Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$205,232	136%	157	112%	4,553	\$84,000

Grant Period: 10/1/12 – 9/30/13 Total Award: \$132,094 Production Goal: 94

With the end of Recovery Act funding, work under this grant has been expanded to include all of the American Samoan Islands (Tutuila and Manu'a). Staffing has currently decreased to about two FTE in weatherization. No expenditures or production have been reported as of the first quarter due to the late award of funds for this period and closing out Recovery Act projects. It is anticipated that FY12 grant funds will be spent out by the end of September 2013.

Status:

Spending		Product	ion	Energy & Cost Savings <sup>1</sup>		
Total Spent (Feb. 5, 2013)	% Total Award Spent (Feb. 5, 2013)	Total Completed Units (through Dec. '12)	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>	
\$3,958	3%	0	0%	0	\$0	

**Commonwealth of the Northern Mariana Islands: Recovery Act** Grant Period: 4/1/09 – 3/31/13 Total Award: \$997,686 Production Goal: 243

Weatherization funds are being used to make low-income homes more efficient. Based on a priority list of items shown to be efficient in the Northern Marianas, the Energy Division installs energy efficient refrigerators, room air conditioners, fluorescent lighting, and low-flow water fixtures. Heat pump water heaters and solar water heaters are also on the priority list, but cannot be found at prices to meet efficiency requirements (\$2,000 and \$5,000 respectively). To ensure safety of the occupants, smoke detectors are also installed during the weatherization work. Recovery Act funds are being used to weatherize homes on the main island of Saipan. It has been a challenge to obtain an adequate number of appliances to serve homes due to the time required to transport items to the western Pacific. There has also been strong competition for resources from other Recovery Act programs. Two full time staff run the program. Almost all work was completed by 9/30/12, but since a small amount of funding remained, CNMI requested a performance extension to 3/31/13.

#### Status:

Spending		Production		Jobs Supported	Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed	% of Production	Average Number of	Annual Energy	Annual Cost
(Feb. 5 <i>,</i> 2013)	(Feb. 5 <i>,</i> 2013)	Units	Goal Completed	Jobs Supported	Savings	Savings <sup>2</sup>
		(through Dec. '12)		(Jul '09 - Dec '12)	(MMBtus)	
\$966,545	96.9%	501	206%	1	14,529	\$268,000

**Commonwealth of the Northern Mariana Islands: Annual Appropriated Funds** Grant Period: 10/1/09 – 9/30/10 Total Award: \$197,186 Production Goal: 54

During the first year, the grantee developed the program and built the infrastructure to deliver weatherization services. This grant is used to perform similar work on the neighboring islands of Rota and Tinian. Production began in the last year after identifying an additional staff person to perform the work on these islands. Production is expected to increase now with trained staff on Rota. Transporting materials to outer islands proves to be a challenge.

Status:

Sp	Spending		ion	Energy & Cost Savings <sup>1</sup>		
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>	
\$11,233	5.7%	0	0%	0	0	

Grant Period: 10/1/10 – 9/30/11 Total Award: \$155,635 Production Goal; 95

During the first year, the grantee developed the program and built the infrastructure to deliver weatherization services. This grant is used to perform similar work on the neighboring islands of Rota and Tinian. Production began in the last year after identifying an additional staff person to perform the work on these islands. Production is expected to increase now with trained staff on Rota. Transporting materials to outer islands proves to be a challenge.

Status:

Spending		Product	ion	Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$96,570	62%	72	76%	2,088	\$38,000

Grant Period: 10/1/11 – 9/30/12 Total Award: \$152,172 Production Goal: 150

Production moved forward on Tinian and Rota this year, while progressing slowly.

#### Status:

Spending		Product	ion	Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$82,943	55%	19	13%	551	\$10,000

Grant Period: 10/1/12 – 9/30/13 Total Award: \$0 Production Goal: 0

Significant carryover funds from prior years and limited FY12 allocations resulted in no new funding for CNMI in FY12. The Grantee will continue spending existing funds. Approximately \$285K has been carried over for use in FY12. Since Recovery Act funds are being spent out, this grant will support weatherization on Saipan and surrounding islands.

Status:

Spending		Product	ion	Energy & Cost Savings <sup>1</sup>	
Total Spent (Feb. 5, 2013)	% Total Award Spent (Feb. 5, 2013)	Total Completed Units (through Dec. '12)	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$26,925	N/A (no award)	0	N/A	0	\$0

Territory of Guam: Recovery Act Grant Period: 4/1/09 – 9/30/13 Total Award: \$1,431,132 Production Goal: 360

The Guam Energy Office entered into a Memorandum of Understanding with the Guam Housing and Urban Renewal Authority (GHURA) to perform weatherization work. A majority of the work is performed on GHURA housing because Guam has had difficulty identifying private low-income residences to weatherize.

Weatherization funds are being used to make low-income homes more efficient. Based on a priority list of items shown to be efficient in the Guam, GHURA installs energy efficient refrigerators, room air conditioners, fluorescent lighting, and low-flow water fixtures.

Heat pump water heaters and solar water heaters are also on the priority list, but prices are too high to meet efficiency requirements (\$1,850 and \$3,300 respectively). In the past year, heat pump water heater prices have decreased, and they have begun installing them in homes. To ensure safety of the occupants, smoke detectors are also installed during the weatherization work.

DOE staff and contractors are currently working with Guam to perform a pilot study to identify inefficient room air conditioners which do not have efficiency labels. Room A/C units cannot be replaced without first determining their efficiency. A protocol was developed and provided to the Guam Energy Office. In addition, staff is working with Guam to weatherize a multi-family building.

A total of three staff at GHURA and three staff at the Guam Energy Office work on the Weatherization Assistance Program. WAP staff in this region works part-time while simultaneously working on other programs.

Status:

Spending		Production		Jobs Supported	Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed	% of Production	Average Number of	Annual Energy	Annual Cost
(Feb. 5, 2013)	(Feb. 5, 2013)	Units (through Dec. '11)	Goal Completed	Jobs Supported (Jul '09 - Dec '12)	Savings (MMBtus)	Savings <sup>2</sup>
\$1,082,687	75.7%	723	201%	3	20,967	\$387,000

## **Territory of Guam: Annual funds**

Grant Period: 10/1/09 – 9/30/10 Total Award: \$198,908 Production Goal: 50

Guam has focused on Recovery Act production over the past four years and has been slow to implement annual appropriations. GEO started an outreach campaign involving media ads, door-to-door visits, and other areas that they hope can meet the target market to get more applicants.

Status:

Spending	Production	Energy & Cost Savings <sup>1</sup>

Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$300	0.2%	0	0%	0	\$0

 Grant Period:
 10/1/10 - 9/30/11

 Total Award:
 \$158,948

 Production Goal:
 89

Guam has focused on Recovery Act production over the past four years and has been slow to implement annual appropriations. GEO started an outreach campaign involving media ads, door-to-door visits, and other areas that they hope can meet the target market to get more applicants.

Status:

Spending		Production		Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$17,212	11%	15	17%	435	\$8,000

Grant Period: 10/1/11 – 9/30/12 Total Award: \$155,377 Production Goal: 176

Guam has focused on Recovery Act production over the past four years and has been slow to implement annual appropriations. GEO started an outreach campaign involving media ads, door-to-door visits, and other areas that they hope can meet the target market to get more applicants.

Status:

Spending		Production		Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$71,339	46%	7	4%	203	\$3,700

Grant Period: 10/1/12 – 9/30/12 Total Award: \$0 Production Goal: 0

Because of significant carryover funds from prior years and limited FY12 allocations, Guam did not receive any new funds in Fiscal Year 2012. The Grantee will continue spending existing funds. Approximately \$422K has been carried over for use in FY12. Guam will be challenged to spend out remaining Recovery Act funds and annual carryover funds by September 30, 2013.

Status:

Spending		Production		Energy & Cost Savings <sup>1</sup>	
Total Spent (Feb. 5, 2013)	% Total Award Spent (Feb. 5, 2013)	Total Completed Units (through Dec. '12)	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$1,887	N/A (no award)	0	N/A	0	\$0

**U.S Virgin Islands: Recovery Act** 

Grant Period: 4/1/09 – 12/31/12 Total Award: \$1,827,182 Production Goal: 700 units

The ARRA WAP is implemented by the Virgin Island Energy Office (VIEO), a division within the Governor's office. Program year 2009 was the first year of WAP funding for this territory. Additional funds were added in September 2010, and as a result, the unit production goal was increased from 430 to 700. The staff developed an approved list of energy saving measures (Priority List) to be installed into the homes of income eligible (200% of poverty) residents. The program also developed audit procedures, and a trained staff of Energy Auditors. To date, 448 units have been weatherized and another 252 are nearing completion and will soon receive final inspections. DOE is conducting programmatic and administrative desk monitoring of the Grantee. The report of this monitoring is expected to be completed by early March 2013. Completing ARRA funded weatherization remains a priority of the VIEO staff.

#### Status:

Spending		Spending Production		Jobs Supported	Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed	% of Production	Average Number of	Annual Energy	Annual Cost
(Feb. 5, 2013)	(Feb. 5, 2013)	Units (through Dec. '12)	Goal Completed	Jobs Supported (Jul '09 - Dec '12)	Savings (MMBtus)	Savings <sup>2</sup>
\$1,749,596	95.8%	448	64%	5	12,992	240,000

## **U.S Virgin Islands: Annual Funds**

Grant Period: 10/1/09 – 9/30/10 Total Award: \$200,481 Production Goal: 58

The WAP is implemented by the Virgin Island Energy Office, a division within the Governor's office. 2009 was the first year of WAP funding for this territory. The program focused on meeting ARRA weatherization goals. Annual grant activity has been limited to training and program development activities including a client intake process. These annual funds were carried over into program year 2012. Production is expected to begin in mid-2013.

#### Status:

Spending		Production		Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$1,608	0.8%	0	0%	0	\$0

Grant Period:	10/1/10 - 9/30/11
Total Award:	\$161,976
Production Goal:	100

The WAP is implemented by the Virgin Island Energy Office, a division within the Governor's office. 2009 was the first year of WAP funding for this territory. The program focused on meeting ARRA weatherization goals. Annual grant activity has been limited to training and program development activities including a client intake process. These annual funds were carried over into program year 2012. Production is expected to begin in mid-2013.

Status:

Spending		Production		Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$33,414	21%	0	0%	0	0

Grant Period:	10/1/11 - 9/30/12
Total Award:	\$158,306
Production Goal:	200

The WAP is implemented by the Virgin Island Energy Office, a division within the Governor's office. 2009 was the first year of WAP funding for this territory. The program focused on meeting ARRA weatherization goals. Annual grant activity has been limited to training and program development activities including a client intake process. These annual funds were carried over into program year 2012. Production is expected to begin in mid-2013.

Status:

Spending		Production		Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$72,153	46%	0	0%	0	0

Grant Period: 10/1/12 – 9/30/13 Total Award: Pending The WAP is implemented by the Virgin Island Energy Office, a division within the Governor's office. 2009 was the first year of WAP funding for this territory. The program focused on meeting ARRA weatherization goals. Annual grant activity has been limited to training and program development activities including a client intake process. These annual funds were carried over into program year 2012. Production is expected to begin in mid-2013.

Status:

Spending		Production		Energy & Cost Savings <sup>1</sup>	
Total Spent (Feb. 5, 2013)	% Total Award Spent (Feb. 5, 2013)	Total Completed Units (through Dec. '12)	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$0	N/A (no award)	0	N/A	0	\$0

Commonwealth of Puerto Rico: Recovery Act Grant Period: 4/1/09 – 9/30/12 (modification pending to change end date to 9/30/2013) Total Award: \$65,262,581 Production Goal: 15,000

The ARRA WAP is implemented by the Puerto Rico Energy Affairs Administration (PREAA), a division within the Governor's office. The Puerto Rico Infrastructure Affairs Administration (PRIFA) acted as the Subgrantee. Program Year 2009 was the first year of WAP funding for this territory. Additional funds were added in September 2010, and as a result, the unit production goal was increased from 2,300 to 15,000. The staff has developed an approved list of energy saving measures (Priority List) to be installed into the homes of income eligible (200% of poverty) residents. The Puerto Rico Energy Audit Tool (PREAT) has now been developed and is pending approval by DOE. Approximately 15,000 homes were weatherized with ARRA funds.

Status:

Spending		Production		Jobs Supported	Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed	% of Production	Average Number of	Annual Energy	Annual Cost
(Feb. 5, 2013)	(Feb. 5, 2013)	Units (through Dec. '12)	Goal Completed	Jobs Supported (Jul '09 - Dec '12)	Savings (MMBtus)	Savings <sup>2</sup>
\$64,756,485	99.2%	15,306	109%	143	443,874	\$8,200,000

## **Commonwealth of Puerto Rico: Annual Funds**

Grant Period: 10/1/09 – 9/30/10 Total Award: \$452,558 Production Goal: 45

The WAP is implemented by the Puerto Rico Energy Affairs Administration (PREAA), a division within the Governor's office. The Puerto Rico Infrastructure Affairs Administration (PRIFA) acted as the Subgrantee. Program Year 2009 was the first year of WAP funding for this territory; 2010 and 2011 funding for this grant will be carried over into 2012. The staff developed an approved list of energy saving measures (Priority List) to be installed into the homes of income eligible (200% of poverty) residents. The Puerto Rico Energy Audit Tool (PREAT) has now been developed and is pending approval by DOE.

Status:

Spending		Production		Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$0	0%	47	104%	1,363	\$25,000

Grant Period: 10/1/10 – 9/30/11 Total Award: \$647,129 Production Goal: 82

The WAP is implemented by the Puerto Rico Energy Affairs Administration (PREAA), a division within the Governor's office. The Puerto Rico Infrastructure Affairs Administration (PRIFA) acted as the Subgrantee. Program Year 2009 was the first year of WAP funding for this territory; 2010 and 2011 funding for this grant will be carried over into Program Year 2012. The staff developed an approved list of energy saving measures (Priority List) to be installed into the homes of income eligible (200% of poverty) residents. The Puerto Rico Energy Audit Tool (PREAT) has now been developed and is pending approval by DOE.

#### Status:

Spending		Production		Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$250,707	39%	84	102%	2,436	\$45,000

Grant Period: 10/1/11 – 9/30/12 Total Award: \$627,557 Production Goal: 115

The WAP is implemented by the Puerto Rico Energy Affairs Administration (PREAA), a division within the Governor's office. The Puerto Rico Infrastructure Affairs Administration (PRIFA) acted as the Subgrantee. Program Year 2009 was the first year of WAP funding for this territory; 2010 and 2011 funding for this grant was carried over into PY 2012. The staff developed an approved list of energy saving measures (Priority List) to be installed into the homes of income eligible (200% of poverty) residents. The Puerto Rico Energy Audit Tool (PREAT) has now been developed and is pending approval by DOE.

Additionally, efforts are under way to procure the services of a non-profit organization to continue to administer services locally.

Status:

Spending		Production		Energy & Cost Savings <sup>1</sup>	
Total Spent	% Total Award Spent	Total Completed Units	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings <sup>2</sup>
\$509,773	81%	0	0%	0	\$0

Grant Period: 10/1/12 – 9/30/13 Total Award: Pending

The WAP is implemented by the Puerto Rico Energy Affairs Administration (PREAA), a division within the Governor's office. The Puerto Rico Infrastructure Affairs Administration (PRIFA) acted as the Subgrantee. Program Year 2009 was the first year of WAP funding for this territory; remaining 2010 and 2011 funding for this grant will be carried over to Program Year 2013. The staff developed an approved list of energy saving measures (Priority List) to be installed into the homes of income eligible (200% of poverty) residents. The Puerto Rico Energy Audit Tool (PREAT) has now been developed and is pending approval by DOE. Efforts continue to administer services locally.

Status:

Spending		Production		Energy & Cost Savings <sup>1</sup>	
Total Spent (Feb. 5, 2013)	% Total Award Spent (Feb. 5, 2013)	Total Completed Units (through Dec. '12)	% of Production Goal Completed	Annual Energy Savings (MMBtus)	Annual Cost Savings2
\$12,745	N/A (no award)	0	N/A	0	\$0

<sup>1</sup> Source: Oak Ridge National Laboratory TM-2010/66 (<u>http://weatherization.ornl.gov/pdfs/ORNL\_TM-2010-66.pdf</u>)

<sup>2</sup>This figure represents aggregate annual energy cost savings expressed in 2010 dollars.

Note: There are multiple instances where a territory had spending during one grant period, but no production. There are also instances where a territory had production, but no spending. The reason for this seeming discrepancy is due to the fact that WAP grants are 5 year grants, but Grantees receive funding on an annual basis. WAP funds are classified as no-year money. Funds that are not spent in one program year can be rolled into another program year as long as it is within that same 5 year grant period. As a result, spending may occur in one program year, while the production related to that spending is reported in another program year.