



AUTORIDAD PARA EL  
FINANCIAMIENTO DE LA  
INFRAESTRUCTURA  
Estado Libre Asociado de Puerto Rico

# ARRA Energy Programs



APPLICATION PROCESS  
CIAPR MEMBERS BUSINESS OPPORTUNITIES

CIAPR CONVENTION  
EL CONQUISTADOR HOTEL  
FAJARDO, PUERTO RICO

AUGUST 7, 2009



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# AGENDA



- I OBJECTIVES**
- II ASSIGNED FUNDS FOR PUERTO RICO**
- III WEATHERIZATION ASSISTANCE PROGRAM**
- IV STATE ENERGY PROGRAM**
- V ENERGY EFFICIENCY AND CONSERVATION  
BLOCK GRANT PROGRAM**
- VI OTHER PROGRAMS**
- VII CIAPR MEMBERS BUSINESS  
OPPORTUNITIES**

# OBJECTIVES



- ARRA Energy Program Overview
- Highlight of Programs' Guidelines
- Business opportunities for CIAPR members

# Assigned Funds for Puerto Rico



• Weatherization Assistance Program	\$48,865,588
• State Energy Program	\$37,086,000
• Energy Efficiency and Conservation Block Grants	\$33,977,000
• Other Programs	
○ State Energy Assurance Initiative:	\$562,794
○ Appliance Rebate Program:	\$3,792,000
<b>TOTAL ASSIGNED TO PR (to date)</b>	<b>\$124,283,382</b>
○ Smart Grid: competitive (first round)	\$93,300,000



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# ***Weatherization Assistance Program (WAP)***



- The Weatherization Assistance Program enables low-income families to permanently reduce their energy bills by making their homes more energy efficient
- Eligible dwelling units are families whose income is at or below 200% of the poverty level with priority given to elderly, persons with disabilities and families with children
- An average expenditure limit of \$6,500 per unit
- Estimated number of units to be weatherized in Puerto Rico – 5,500 units



- **Program Weatherization Measures in PR:**
  - Replace refrigerators with more efficient units
  - Replace air conditioners with more efficient units
  - Replace electric water heaters with solar water heaters or more efficient units
  - Replace incandescent lamps with compact fluorescent lamps
  - Provide maintenance to refrigerators and air conditioners
- **Program Key Players**
  - Applicants
  - Auditors
  - Contractors
  - Inspectors



- **Minimum requirements for a WAP Auditor:**
  - Professional Engineer, Engineer in Training, Bachelor Degree in engineering, Associated Degree in engineering or equivalent (two years and/or 60 credits towards an engineering degree)
  - Registered Architects, Architects in Training, Architectural Technologist
  - Certified Electrician
  - Certified Refrigeration Technician



- **Minimum requirements for a WAP Auditor:**
  - Auditor could be an independent professional or a company employee
    - ✦ Auditors are limited to three (3) per company
  - Auditor shall attend a mandatory training to be celebrated in PR
  - Auditor shall pass an exam for certification in PR WAP
  - Auditors will use DOE approved spreadsheets and the Savings/Investment Ratio parameter to recommend what weatherization measures to be performed in each unit
  - Auditor will generate the work orders for the contractors and reports to AFI



- **Different RFQs and RFPs will be performed for the Program**
  - Replacement of Refrigerators
  - Solar water heaters supply and installation
  - Compact fluorescent lamps supply
  - Replacement of air conditioners
  - Incidental repairs and miscellaneous installations
- **RFQs will be announced in the newspaper for contractors to submit SOQs. Contractors will pick up and deliver documents at AFI's offices**
- **RFPs delivered to qualified contractors for pricing purposes**
- **Selected contractors shall assist a mandatory training to participate in PR WAP**



- **Minimum requirements for an Inspector:**
  - Inspector shall be a Professional Engineer or Registered Architect
  - Inspector could be an independent professional or a company employee
    - ✦ Inspectors are limited to three (3) per company
  - Inspector shall assist a mandatory training
  - Inspector to certify that the weatherization measures were done as per auditor recommendations
  - Inspector will provide reports to AFI



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# ***ARRA-State Energy Program (ARRA-SEP)***



- **The ARRA – State Energy Program provides funding for:**
  - Energy Conservation
  - Renewable Energy
  - Energy Efficiency Projects
- **Key Players:**
  - Energy Affairs Administration, Infrastructure Financing Authority and other agencies or government departments
  - Applicants
  - Contractors and suppliers
  - Consultants and auditors
  - Advertisement agencies

# ARRA-SEP Sub-programs



- **\$37,086,000**
- **ARRA-SEP sub-programs:**
  - Codes and Standards Program - \$1.6M
  - Energy Education and Mass Media Outreach - \$1.6M
  - Revolving Loan Program - \$4.8M
  - Traffic Signal Retrofit Program - \$1.3M
  - Solar Water Heater Rebate Program - \$1.3M
  - Sun Energy Program - \$6.5M
  - Wind Energy Program - \$6.5M
  - Building Energy Efficiency Retrofit Program - \$7.7M
  - Agriculture Renewable Energy Program - \$1M



- Codes and Standards Program will review existing codes and create additional required codes and policies as stated on the Governors' Assurance Certification
- These codes include but are not limited to residential building energy codes, commercial building energy codes, thermal efficiency standards, and lighting efficiency standards
- In addition, this program will ensure that codes and standards for public buildings incorporate energy efficiency criteria into procurement procedures



- AFI and EAA technical personnel will revise, modify and develop new residential and commercial building energy codes for adoption
- Request for proposals for Consulting Firms for the compliance of new building energy codes, as required by the Governor's Assurance Certification
- Evaluating Committee composed of energy professionals and Government representatives will overlook the Consulting Firm's progress work



- Expand and promote current energy conservation and energy efficiency public awareness programs
- Seminars, workshops and training to educate the public in energy efficiency and conservation subjects
- Promote energy education in alliance with schools and non-profit entities

- Mass Media outlets:
  - Television
  - Newspapers
  - Magazines
  - Internet
  - Radio
- Promote programs, seminars, workshops and trainings related to energy efficiency and conservation
- Request for proposals for Advertisement Agency to produce advertisement campaign in progress

# ARRA-SEP Revolving Loan Program



- The Revolving Loan Program will loan funds at low interest to private entities to finance applicable energy projects
- Maximum loan amount per applicant is limited to three hundred thousand dollars (\$300,000)
  - ARRA-SEP - fifty percent (50%) of loan amount
  - Economic Development Bank - fifty percent (50%) of loan amount
- The Applicant will be required to invest 10% of the total project cost
- Maximum allowable payback is 8 years



- Traffic Signal Retrofit Program will fund the replacement of red and green incandescent traffic lights by LED traffic lights
- Main beneficiary: Public Works Authority
- Request for proposals to traffic light's distributors
- Incandescent lamps shall be recycled and put out of commission by the traffic light's distributors

- The Solar Water Heater Rebate Program will provide rebates to homeowners when they purchase a new solar water heater
- \$500 per household/applicant
- As per Puerto Rico law, taxpayer can deduce balance of costs after rebate

# ARRA-SEP Sun Energy Program



- The Sun Energy Program will provide rebates for the purchase and installation of solar energy systems in homes, businesses, and government facilities
- Homes - \$4 per watt up to 50% of the total cost with a maximum of \$15,000
- Businesses - \$4 per watt up to 50% of the total cost with a maximum of \$100,000
- Government – 100% of total cost with no more than \$8 per watt with a maximum of \$100,000

# ARRA-SEP Wind Energy Program



- The Wind Energy Program will provide rebates for the purchase and installation of wind energy systems in businesses and government facilities
- Businesses - Up to 50% of the total cost with a maximum of \$500,000
- Government – 100% of the total cost up to a maximum of \$500,000

- The Buildings Energy Efficiency Retrofit Program will provide rebates for energy efficiency retrofit projects for businesses and government facilities
- Businesses - Up to 50% of the total cost with a maximum of \$200,000
- Government – 100% of the total cost with a maximum of \$200,000
- Energy Audits – Maximum of \$5,000 per audit on awarded projects



- The Agriculture Renewable Energy Program will provide rebates for the construction of new renewable energy projects in the agriculture industry
- Up to 50% of the total matching cost with a maximum of \$100,000
- Puerto Rico Department of Agriculture (PRDA) will contribute matching funds to the program
- Selection of projects by PRDA
- Technical approval by AFI based on AFI regulations, EAA Regulation for Renewable Systems and other applicable standards



- To become an Applicant download application package and submit the following information:
  - Rebate Reservation Form (Applicant/owner's information)
  - Installer information
  - Vendor's information
  - Project's price quotation
  - Owner's proof of ownership
  - Owner's valid identification
  - Last six (6) electric utility bills
  - Proposed project site sketch (if applicable)



- **Program specific information required:**
  - Energy audit (for Building Energy Efficiency Retrofit)
  - Wind study (for Wind Energy Program)
  - Proof of purchase
  - Proposals for specific tasks for several Sub-programs

# ARRA-SEP Application Procedure



- Fill out the Rebate Reservation Form (RRF) and additional documents indicated on the RRF
- Submit application package to:

AFI

Att: ARRA-SEP Energy RRF

Edificio Capital Center

Ave. Arterial Hostos 235

Torre Norte, Suite 1601

San Juan, Puerto Rico 00918

# ARRA-SEP Application Procedure



- Applications will be evaluated by AFI
- If the application is approved, AFI will reserve the rebate amount. AFI will issue a Rebate Reservation Notice Letter to the Applicant
- The funds will be reserved for a period of time during which the project must be installed, connected and inspected. Period of time varies depending on sub-program
- The Applicant shall return a Letter of Intent to AFI stating the intentions to construct the project with the assigned rebate

# ARRA-SEP Application Procedure



- Once the project is completely permitted, installed, interconnected, and paid for, the applicant shall submit a Rebate Claim Form to AFI
- All program requirements must be met before the Applicant receives a rebate
- AFI reserves the right to inspect any project prior to disbursing a rebate
- Upon final approval of the Rebate Claim Form and the field inspection AFI will issue a rebate to the Applicant




- Applications will be evaluated for possible rebates based on program specific parameters
- Applications will be evaluated in four evaluation periods:
  - January 1 - March 31
  - April 1 – June 30
  - July 1 – September 30
  - October 1 – December 31
- Last application deadline on September 30, 2010



- Only one project per client per period will be evaluated
- Additional projects per client will be placed on a waiting list
- If there are sufficient remaining funds, waiting list applications will be evaluated on the subsequent evaluation period
- This process will be repeated until all funds are expended



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***Energy Efficiency and  
Conservation Block Grant  
(EECBG)***



- Provides funds to the central government (Energy Affairs Administration) and to the municipalities for projects that:
  - Reduce energy consumption
  - Reduce fossil fuel emissions
  - Improve energy efficiency
    - ✦ Transportation
    - ✦ Building
    - ✦ Other sectors



- The grants can be used for:
  - Development and Implementation of Energy Efficiency and Energy Conservation Strategies
  - Building Energy Audits to identify Highest Energy Consumption Components of the Building
  - Development and Implementation of Energy Conservation Projects



- Total Funds assigned to Puerto Rico \$33,977,000, to be distributed as:
  - \$9,593,500 to Central Government through EAA
  - \$24,383,500 for Municipalities with a population of more than 35,000



- **Distribution of funds to be received by the EAA**
  - \$5,757,500 sub-grants to the municipalities with a population of less than 35,000
  - \$1,000,000 sub-grants to community-based non-profit organizations
  - \$1,936,000 sub-grants for energy conservation retrofits at Central Government buildings



- Projects for energy conservation modifications at Central Government buildings will be selected based on the defined project's ROI
- Central Government Buildings to be considered for energy conservation modifications:
  - Fortaleza
  - Capitol Building
  - State Department
  - Cuartel de Ballaja
  - Justice Department
  - Treasury Department
  - Minillas Government Center



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# ***Other Programs***

# OTHER PROGRAMS – Smart Grid



- Electricity Delivery and Energy Reliability – \$4.5 Billion better known as the Smart Grid Program
- There will be 3 phases of petitions:
- Deadlines:
  - August 6, 2009
  - November 4, 2009
  - March 3, 2010

# OTHER PROGRAMS -Smart Grid



- PREPA requested \$92.7 million at 50% matching:
- Customer Service System                   \$ 20,000,000
- Energy Management (EMS)               \$ 21,900,000
- Remote Metering System                 \$ 50,500,000
- Distributed Energy                         \$       300,000

# PREPA Smart Grid Coordination Table



	Project Name	Project Size	Cost	Phase for which Submittal is Planned	Proposal Deadline 2009
1	Customer Service System	Large	\$20,000,000	Phase I	August 6
2	Energy Management System (EMS) Replacement Project	Large	\$21,900,000	Phase I	August 6
3	Remote Metering System and New Smart Meters	Small	\$50,500,000	Phase I	August 6
4	Distributed Energy at PREPA's Administrative Complex	Small	\$300,000	Phase I	August 6
5	Distribution Automation Project	Large	\$4,000,000	Phase II	November 4
6	Replacement of Analog Control System with new Hydro-turbine Digital Control and Switchgear at Rio Blanco Hydroelectric Station	Small	\$1,330,000	Phase II	November 4
7	Replacement of Analog Control System with new Hydro-turbine Digital Control and Switchgear at Rio Blanco Hydroelectric Station	Small	\$1,500,000	Phase II	November 4
8	Dos Bocas Hydroelectric Station: a) Replacement of Analog Control System with new Hydro-turbine Digital Control and Switchgear at Units 1-1, 1-2, and 1-3; b) Units 1-1 and 1-3 optimization, including removal of sediment at the penstock intake Toro Negro Hydroelectric Station	Small	\$3,975,000	Phase II	November 4

# OTHER PROGRAMS

## State Energy Assurance Initiative

- \$562,794 will be awarded to PR for preparation of the Energy Assurance Plan with the purpose of:
  - Develop standard guidelines to understand how to respond to energy outage
  - Address the protection of critical infrastructure within the foreseen changes in PR electrical system
  - Provide guidelines for the integration of sustainable renewable energy sources into the island electric power transmission grid
- Awareness training and energy assurance exercises will be conducted
- Grant Application was submitted July 28, 2009 to DOE

# OTHER PROGRAMS

## Appliance Rebate Program



- \$3.8 MM available for rebates
- Applicable Energy Star appliances:
  - Refrigerators
  - Water heaters
  - Air conditioners
  - Laundry washer
  - Dishwasher
  - Freezers
- Program plan is being developed to specify rebate amount and procedure to request rebate
- Deadline for grant petition is October 15, 2009



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# ***CIAPR Members Business Opportunities***



- Grant / Rebate Recipients
- Energy Auditors
- Project Designers and Consultants
- Project Inspectors
- Contractors
- Equipment / Appliances Suppliers
- Energy Conservation Performance Contractors
- Preventive Maintenance Service Provider
- Recycling Service Provider



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# ***QUESTIONS***