



UAB & CITY COMMISSION WORKSHOP

Item #160211

09/13/16

The Motion



Conservation Programs

Purpose of Programs

- Delay building a power plant for future needs
- More cost effective than new generation
- Changed program evaluation model in 2007

Energy Efficiency Programs

Active Programs

Home Energy Calculator	Net Metering for Solar PV Systems
Low-income Energy Efficiency Program ^{plus} (LEEP ^{plus})	Residential Duct Testing
On-Site Home Survey	

Energy Efficiency Programs

Discontinued Programs

Added Insulation	Home Performance with Energy Star® Program
Central AC Maintenance	Irrigation Maintenance
Compact Fluorescent Lamp (CFL) Program	LED Exit Sign
Custom Business	Low Interest Energy Efficiency Loan
Duct Leak Repair	Pool Pump
Energy Star® Certification for Affordable Housing Construction	Reflective Roof Coating
GRU Building Energy-efficient and Sustainable Training (BEST)	Refrigerator Buyback & Recycling
Heat Pipe Enhanced AC	Solar Feed in Tariff (FIT)
Heat Recovery Unit	Solar Photovoltaic (PV)
High Efficiency Central AC <ul style="list-style-type: none">• 13 SEER• 15 SEER• Super SEER	Solar Water Heater
High Efficiency Room AC	Vending Miser

Total Savings from Programs

- 26,118.3 kW reduction
- 131,617.4 MWh reduction

Programs Discontinued

- Budget cutbacks to reduce upward rate pressure
- Customer growth declined
- Usage declined

Low-income Energy Efficiency Program^{plus} (LEEP^{plus})

Program Benefits

Customer	GRU	Community
Address health, safety & affordability concerns	Cost-savings by reducing bad debt, arrearages, and administrative costs of collection, service disconnection and closing/opening account	Community outreach and education
Contractor improved quality service	Prevented loss revenue due to 55.4% reduction in disconnects	Improved economy
Empower to manage utility bills	Achieved savings of 1.7 MW	Increased jobs
Increase energy-efficiency	Improved quality assurance	Contractor improved quality service
Enhance quality of life	Contractor improved quality service	
Reduce consumption		
Added resources for customers		
Improve comfort		

Program Changes

- \$3,200 (inception) to \$4,000 (current)
- Year built for single family homes changed from 1993 to 1997
- Improved estimate process
- \$0 income is now ineligible
- Contractor's disciplinary process
- HVAC code change from 13 SEER to 14 SEER
- Added weather stripping and caulking of doors and windows as an improvement
- Require one year of electric service at current location
- GRU randomly inspects 10% of LEEP^{plus} homes to ensure upgrades have been maintained and energy reduction is being applied

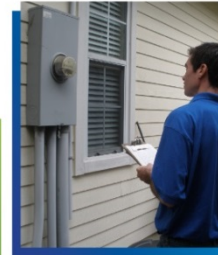
Program Numbers

Number of Homes		
FY	Goals	Actuals
2015	123	123
2014	120	133
2013	150	151
2012	199	200
2011	336	253
2010	169	181
2009	114	114
2008	118	122
2007	40	40

Increase due
to stimulus
funding.



LEEP^{plus} Folder



Low-income Energy
Efficiency Program

GRU
More than Energy

Folder contents

- Admin guideline
- Application
- Customer guide
- HUD guidelines
- Survey form
- Certificate of Recommendation
- Partnering Contractors' list
- Voucher
- Opinion card
- Magnet
- Marketing postcard
- Partnering Contractor Handbook

Partnering Contractor Requirements

- Proof of current license(s) in the State of Florida
- Pass a satisfactory background check with no active customer complaints at the time of application or annual renewal
- Proof of Liability and Workman's Compensation Insurance
- Complete LEEP^{plus} Partner Agreement
- Complete Contractor Business Information Form
- Complete W-9 Form
- Complete LEEP^{plus} Partner Marketing Agreement
- A minimum of three (3) satisfactory professional references, such as suppliers of material, tools, or credit
- A minimum of three (3) satisfactory customer references
- Attend an introductory training prior to becoming a Partner

Current Improvements

- Replacing central air conditioning and heating systems
- Servicing central air conditioning systems
- Replacing room air conditioners with high-efficiency units
- Repairing leaky ducts
- Installing additional insulation
- Replacing the water heater
- Installing a programmable thermostat
- Weather stripping and caulking of doors and windows
- Providing up to 10 compact fluorescent light bulbs (CFLs)

Pictures of Improvements

Before & After



Replaced old, inefficient, leaking and malfunctioning water heater.

Before & After



Replaced mercury thermostat with programmable thermostat.

Before & After



Addition of R-30 to uninsulated attic.

Before & After



Replaced old, inefficient and malfunctioning air handler with new unit.

Before & After



Replaced old, inefficient and malfunctioning condenser with new unit.

Before & After



Reattached and sealed duct with mastic.

Customer Folder

Customer Folder Contents

- Voucher letter
- Voucher
- Invoice
- Manual J
- Duct test results
- Permit
- AHRI
- Other estimates

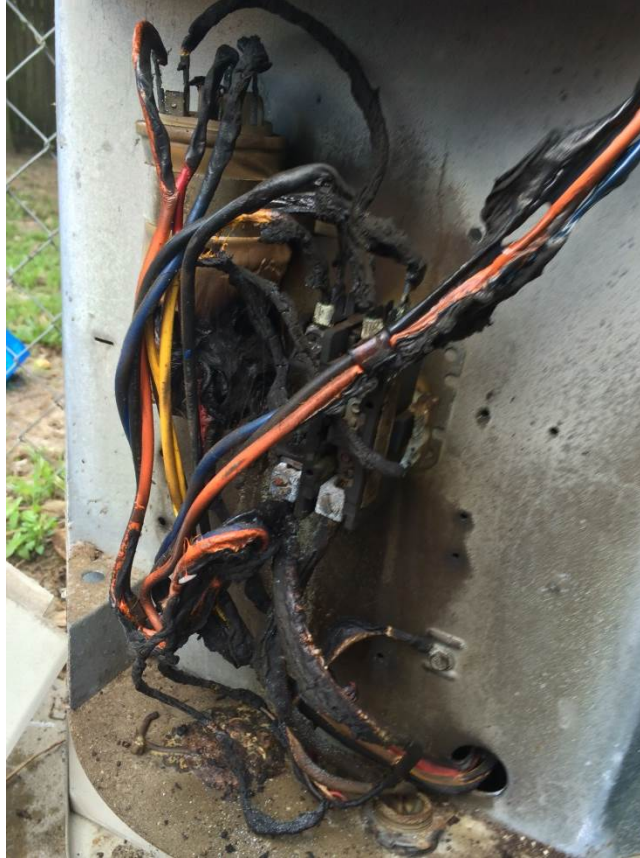
Ineligible Customer Pictures

Electrical & Drywall Repair



Exposed wires and missing drywall in bathroom. Minor electrical and drywall repairs would address these concerns.

Electrical upgrade



Inoperative condenser with burnt wiring. Electrical upgrade needed to proceed with assistance.

Safety Hazard



Exposed wiring and possibly hot.

Minor Roof Repairs



Necessary eave repair to prevent rodents from entering attic and damaging duct work and insulation.

Window replacement



Boarded area due to missing window. Referred to another agency to address multiple windows before LEEP^{plus} could proceed.

Tub repair



LEEP^{plus} helped customer with energy-efficiency improvements, but could not address bathtub leak. Referred to alternate agencies for additional help. Leak under tub could cause mildew/mold infestation, which would be a health and safety concern.

Tub leak



Leak in faucet valve

Major roof leaks



Mobile home with major roof leaks. Referred to alternate agencies for assistance.

Structural Damage



LEEP^{plus} could not assist due to extensive damage. Referred to other agencies before GRU could proceed.

Structural Damage



LEEP^{plus} could not assist due to extensive damage. Referred to other agencies before GRU could proceed.

Structural Damage



Customer was using oven to heat home. Resulted in fire that encompassed kitchen and dining area. Referred to alternate agencies for assistance.

Proposed Improvements

- Minor roof repairs
- Electric panel upgrades – most common reason for denial due to electrical home safety and not enough amps to power equipment
- Weatherproofing and sealing eaves (sealing home envelope)
- Replace/repair stoves* and refrigerators
- Refrigerator door gasket
- Drywall repair- when safety is a factor (exposed wire)
- Minor plumbing- pipes, toilets, sinks, showers and tubs
- Repair/replace doors, glass and windows

Proposed Improvements

- Educational classes
- Leak detection
- High-efficiency lighting (LEDs)
- Provide customer with brush to clean refrigerator coils
- Install ceiling fans
- Adjust water level in toilet tank or replace toilet tank kit
- Install Low-flow toilets, showerheads and aerators
- Mobile home roof coating
- Solar screens
- Carbon monoxide/smoke detectors
- Provide outlet gaskets

Justification for Proposed Improvements

- Address other GRU services such as gas and water
- Assist denied homes that have safety and structural infractions
- Upgrade appliances that have been forfeited due to budgetary constraints

Community Partners

Partnership Services

Agencies	Survey	Income Verification	Replace HVAC	Furnace	Service HVAC	Room Ac	Duct seal	Insulation	Water heater	Programmable Thermostat	Weather stripping/caulking	Showhead & aerators
City	X	X	X	X			X	X	X	X	X	
CFCAA	X	X	X		X		X	X	X		X	
CWC	X											X
GRU	X	X	X	X	X	X	X	X	X	X	X	
Habitat	X	X		X			X	X	X			
NHDC	X	X	X	X			X	X	X	X	X	
RTNCF	X	X						X			X	

Partnership Services

Agencies	Energy-efficient lighting	Solar screens	Reflective roof coating	Attic ventilation	Windows/doors	Minor wall, ceiling, roof & floor repairs	Appliances	Minor plumbing & electrical	Handicap accessibility	Exterior paint	Foundation repairs
City	X			X	X	X		X	X	X	X
CFCAA		X	X	X	X	X					
CWC	X										
GRU	X										
Habitat						X		X	X	X	
NHDC	X			X	X	X		X	X	X	X
RTNCF					X	X	X	X	X	X	X

Benefits of Partnership

- Free marketing through word of mouth
- Third party income verification
- Leverage of GRU dollars due to other agencies assisting with mutual customer

Recommendations

Proposals for \$100,000

- LEEP^{plus}
 - New improvements
 - Increase number of homes
 - Increment Communications budget

Budget

- **LEEP^{plus}**
 - **Communications \$3,500**
 - Month of bill boards or gas station posters \$2500
 - Promotional materials \$1,000
 - **New improvements \$10,780**
 - Doors and windows \$3,500
 - Toilets, showerhead & aerators \$330
 - Refrigerators \$600
 - Stoves \$700
 - Minor roof repairs \$1,000
 - Electrical upgrade \$3,000
 - Install ceiling fans \$350
 - Sealing eaves \$500
 - Minor plumbing \$800

Questions?