



Renewable Energy

RUC Referrals #120686, #110783

October 9, 2014

Outstanding RUC Referrals

- **#120686 - Low Income Solar**
Investigate ways to make solar accessible to low income homeowners
- **#110783 – Green Energy Payment Options**
Customers being able to purchase green energy by making a monthly contribution on their electric bill

Agenda

- Low Income Solar
 - History of Solar Programs
 - Current Low Income Program
 - Potential Low Income Solar Program
 - Summary and Recommendation
- Green Energy Payment Options
 - History of Green Pricing
 - Discussion
- Summary

Past and Current Solar Programs

- Rebates
 - Solar Water Heater (1992) – no longer funded
 - Solar Photovoltaic (PV) (2007) – no longer funded
- Solar FIT (2009) – no longer funded
- Net Metering(2007)
 - Modified 2014 – available to all residential and business customers

Current Low Income Program

- Low Income Energy Efficiency Program (LEEP)
 - Available only to qualifying low income customers (must own home)
 - Helps to improve efficiency and comfort
- FY 15 Budget of \$469,600 and 124 homes

Current LEEP Requirements

- Eligibility - Income based on HUD Guidelines
- Upgrades average \$3800
- Consist of:
 - HVAC systems (replacement, service or repair)
 - Duct system (replace, seal or repair)
 - Insulation
 - Water heaters (replace electric or gas or repair)
 - Weather-stripping & caulking
 - Minor repairs

Using LEEP Funds for Low Income Solar

- Recommended Requirements
 - Eligibility - Income based on HUD Guidelines
 - About 500 ft² of roof space
 - Roof must be in good condition not near the end of useful life
 - Roof must not be shaded
 - Homeowner required to carry \$100,000 in liability insurance

Using LEEP Funds for Low Income Solar

- Cost Estimate
 - \$20,000 per customer for a 5 kW system
 - Using FY 15 LEEP Budget, would allow 23 homes
- Under the current program, LEEP assists 5.3 customers to one solar PV customer should the program be changed

Summary and Recommendation

- LEEP
 - Reduces consumption
 - Improves efficiency
 - Provides added comfort
- Solar for Low Income
 - Does nothing to improve the efficiency
 - Does not address the mechanical issues and comfort
- 1 home in Solar = 5.3 homes in LEEP
- Do not pursue Solar for Low Income due to poor return on investment

#110783 – GREEN ENERGY PAYMENT OPTIONS-
CUSTOMERS BEING ABLE TO PURCHASE GREEN
ENERGY BY MAKING A MONTHLY CONTRIBUTION
ON THEIR ELECTRIC BILL

History

- Voluntary Customer Contribution Fund (2002)
 - Constructed 10 kW system at GRU's Electric Systems Control Facility (NW 53rd)
 - Constructed 1.68 kW system at Westwood and Kanapaha Middle Schools
- GRUgreen Energy Program (2003)
 - Conduit for business customers to support renewable energy

Currently

Renewable Energy

- Purchase energy produced from landfill gas from G2 energy (15 year contract)
- Contract with American Renewables to purchase 100 MW of biomass
- Solar Feed-in-Tariff (FIT) with a cap of 4 MW of solar per year through 2016 (Suspended)
 - (18.5 MW installed)

Florida Green Pricing Programs

Utility	Program	Type	Started	Premium
PowerSouth	Green Power Choice	Landfill gas	2006	2.0¢/kWh
TECO	Renewable Energy	PV, landfill, biomass co-firing (wood)	2001	2.5¢/kWh
New Smyrna Beach	Green Fund	Local PV projects	1999	Contribution

Considerations

- GRU customers currently pay for renewable energy through rates
- Renewable Energy Credits (REC's) have value (markets developing)
- Residential, business and institutional needs and drivers
- Value to GRU and Customers

Potential Programs

Community Solar

- Business Structure
- Place in generation mix (Power 2020)

Wholesale Energy

- Developing markets

Business Green Energy

- LEED certification, Image, required

Discussion

#110783 – GREEN ENERGY PAYMENT OPTIONS

- GRU has offered customers the option in the past to purchase green energy
- Participation was very low
- GRU customers are already contributing to and receiving renewable energy
- Possibly more tangible benefits in community solar model

Summary

- Continue to focus on LEEP
- Recommend removing Low Income Solar referral
- Monitor opportunities for green pricing programs that may benefit customers