

Energy Efficiency Southern Style

Bill Shepherd

April 28th, 2009

AESP's Spring Implementation
Conference



Energy Efficiency Southern Style

Presentation Outline

- GR who?
- Residential Programs
- Business Programs
- Renewable Programs
- Program Achievements

Who is GRU

- Gainesville Regional Utilities (GRU) is the 5th largest municipal electric utility in Florida.
- 92,000 electric retail customers in Gainesville and surrounding unincorporated areas.
- Most recent summer peak 481 MW Summer '07
- Total installed capacity 610 MW

How we got here...

City Commission Action

On April 12, 2006 The Gainesville City Commission directed staff to:

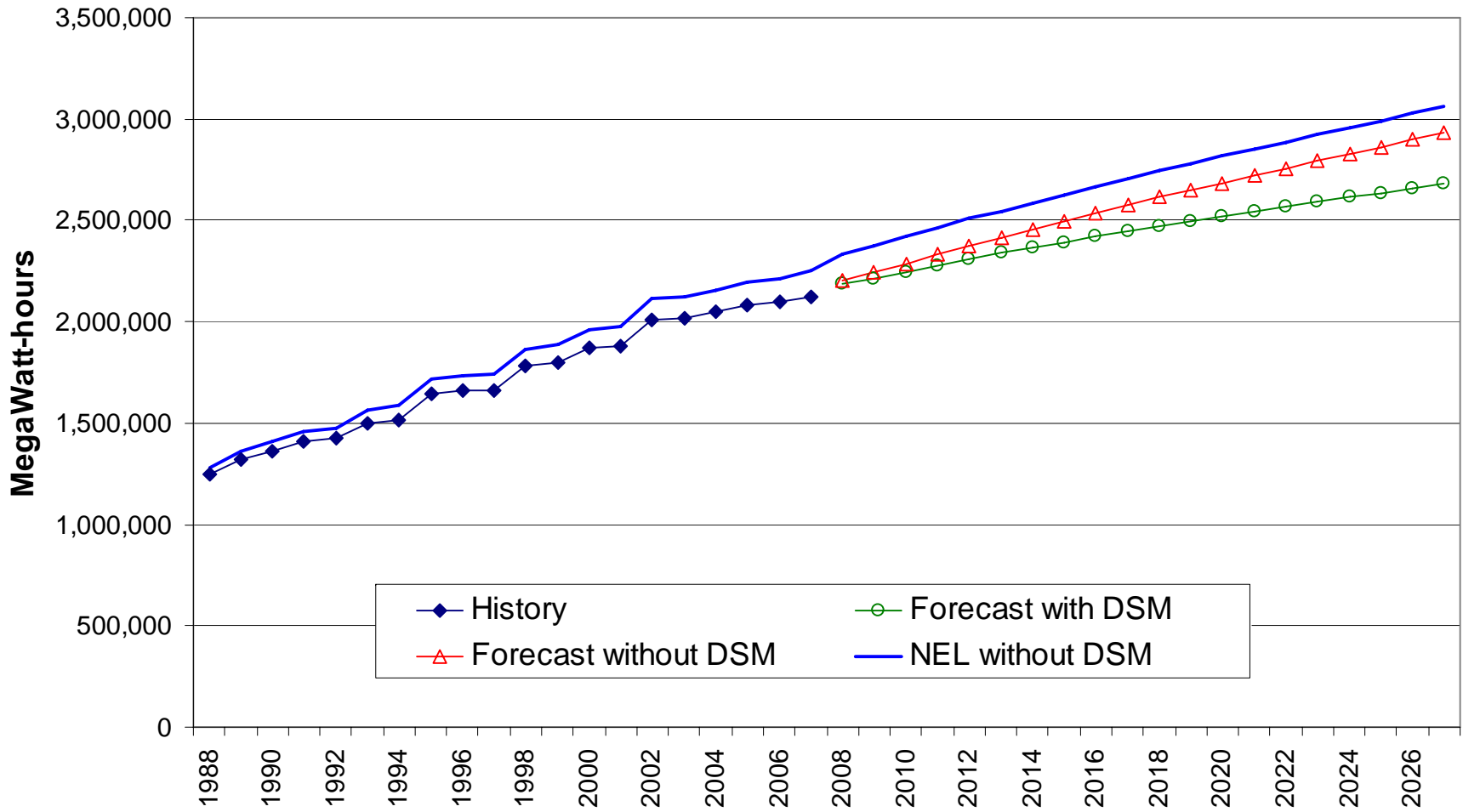
*“1. Include the **Total Resource Cost test** as a consideration to **pursue all cost effective and feasible demand side measures** including demand response, energy efficiency, load management and innovative rate design options. Ensure that the needs of low income customers are addressed in demand side management programs.*

*2. Have GRU staff conduct a thorough examination of all DSM options and **present a plan to the commission** to develop and implement all cost effective DSM and demand response measures...”*

Long Term Commitments

- DSM integrated part of GRU's energy supply plan
- Goals
 - Demand - 86 MW by 2025
 - Energy – 249,000 MWh by 2025
- Long term impacts
 - Decrease demand growth by ~ 50% a year
 - Projected growth 8.8 MW / year
 - Projected DSM - 4.5 MW / year
 - Decrease energy growth by ~ 30% a year
 - Projected growth 43,000 MWh / year
 - Projected energy reduction -13,000 MWh / year

Net Energy for Load



Residential Programs

HVAC Programs

- Home Performance w/ E-Star
 - Up to \$1560 rebate
 - Partnering Contractors
 - Training for Technicians
- Duct Leak Repair
 - Up to \$375 rebate
- Added Insulation
 - Up to \$375 rebate
- A/C Maintenance
 - \$55 rebate



Appliance and Water Programs

- Room A/C exchange Program
 - \$150 rebate
- Refrigerator Recycling Program
 - \$75 rebate
- High Efficiency Pool Pump Program
 - \$500 rebate
- Irrigation Maintenance Rebate
 - Up to \$75 rebate



Community Programs

- Low income Energy Efficiency Program (LEEP)
 - UP to \$2900 per household
 - Duct repair, additional insulation, water heater, central or room A/C unit, etc.
 - Education component
- Compact Fluorescent Lamp Program
 - In-store buy downs
 - Community events
 - Direct install





Business Programs

- LED exit sign program
 - \$50 per sign
- Smart Vend program
 - Free vending mizer device
- Custom Business Program
 - Any effective efficiency project
 - 50% up to \$40,000

Renewable Programs

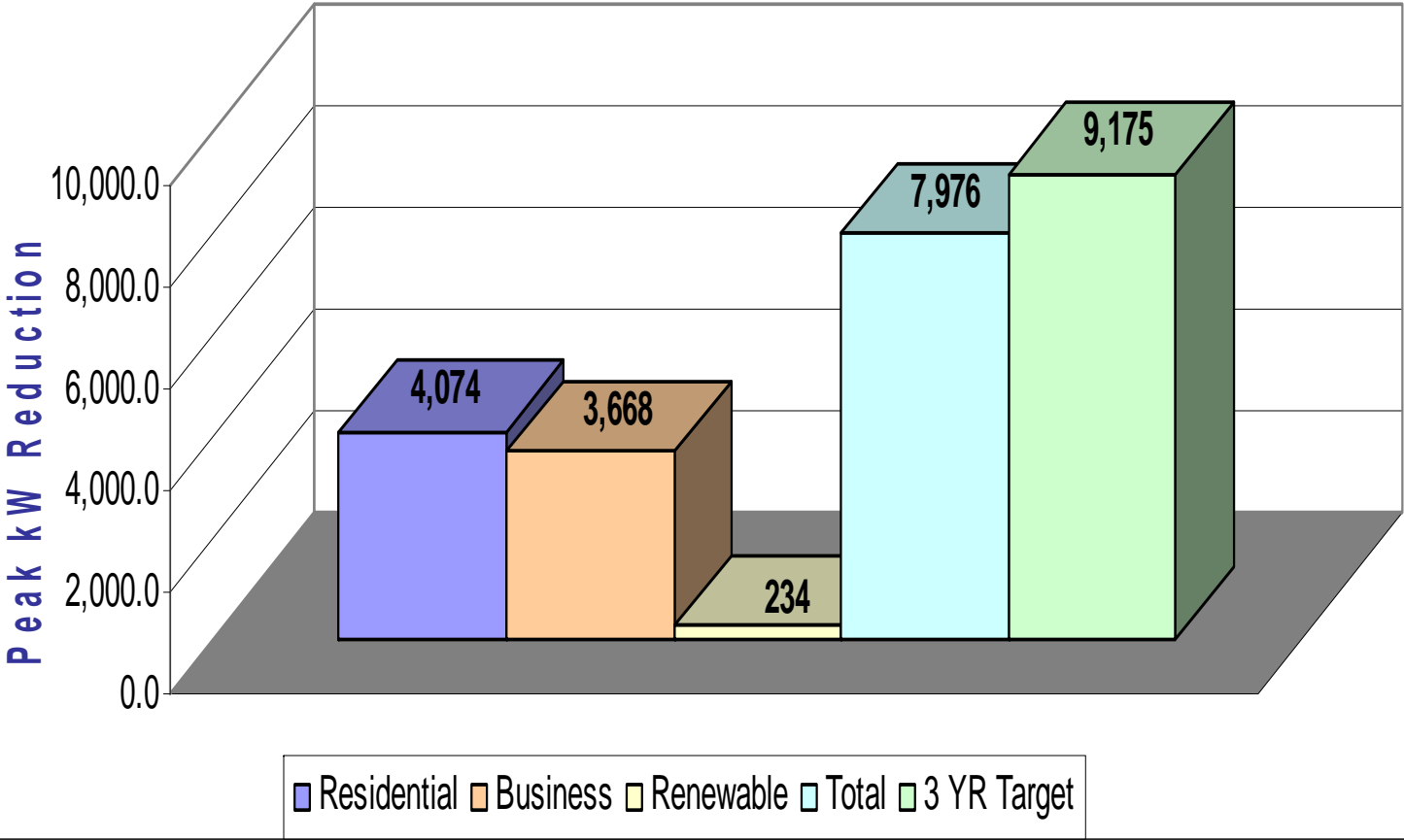
- Solar water heater program
 - \$500 rebate
- Residential solar photovoltaic program
 - \$1.50 up to \$7500
- Feed-In-Tariff program
 - \$0.32 per kWh generated
 - 4 MW stop loss per year
 - > 12 MW in queue



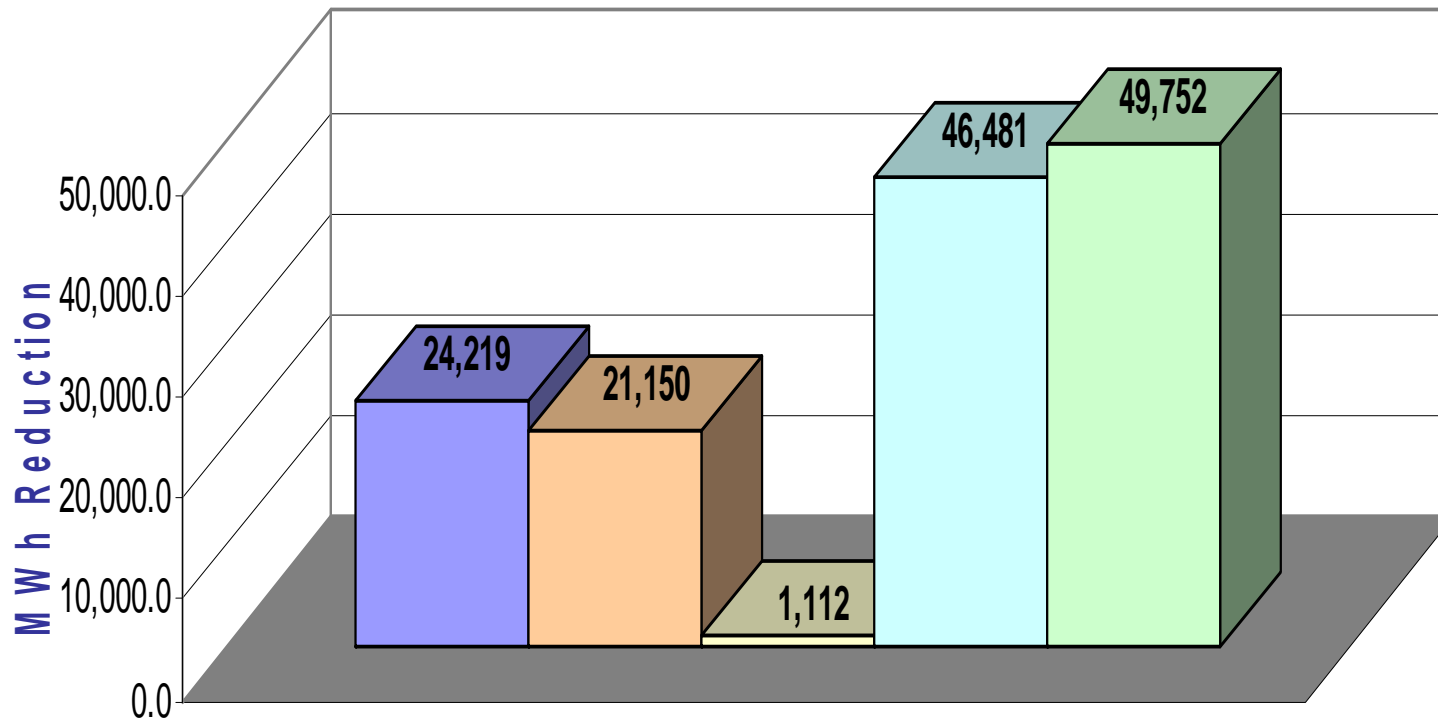
Photo Credit: Kelly LaDuke for The New York Times

Program Achievements

Total Demand Reduction Since Implementation



Total Energy Reduction Since Implementation



■ Residential ■ Business ■ Renewable ■ Total ■ 3 YR Target

FY'08 Achievements

- 20,457 MWhs from efficiency programs
- 3.5 MW reduction in Demand
- Retail sales 1,822,016 MWhs
- Efficiency gains were **1.1% of sales**

Thank you!

Bill Shepherd – (352) 393-1483
shepherdwj@gru.com

Extra slides time permitting

Growing Pains

Shifting Resources

- Programs can be cyclical and maintaining resource flexibility can play a key role
 - Staff – nothing gets done by itself
 - Money – nothing is free


Perfect Programs Cost too Much

- Break old idea of perfection
 - Programs must be flexible
 - Lower barriers
- At the end of the day it's all about results
 - Don't let barriers prevent results

Refrigerator Buyback

- Old utility
 - Send someone to check each and every refrigerator for nameplate age and determine if still in use
 - Auditors got backed up
 - Customers got upset
 - Volume was very low
- New utility
 - Assume replacement fridge is old and connected
 - Customer satisfier
 - Volume goes up
 - Measure program results on back end and adjust as needed



Your Touchstone Energy® Partner 

Energy Efficiency and the NC REPS

Tim Bennett

April 29, 2009

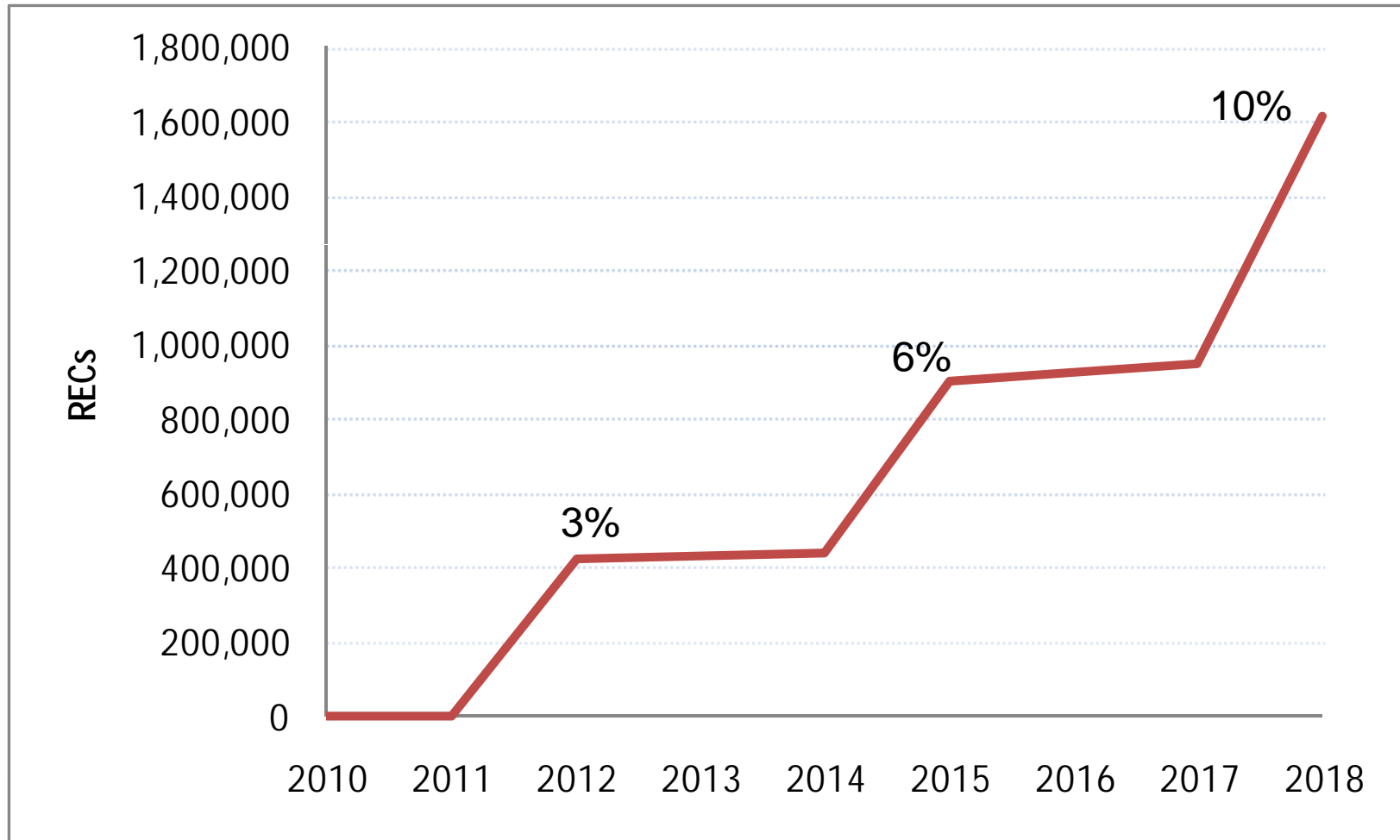
GreenCo Solutions, Inc

- Formed April 2008
- Not-for-profit corporation
- Electric cooperatives in NC
 - 23 of the 26 EMC are member/owners
- Three primary services
 - Energy efficiency program development and management
 - Development of renewable energy resources portfolio
 - NC REPS Compliance planning and reporting
- Board of Directors comprised of 1 representative from each member

Formation of GreenCo

- NC REPS applies to electric power providers (EMCs) not to the G&T
- EMCs would have to add resources to comply
- Aggregation of reporting and marketing efforts
- Leverage other areas of organization

GreenCo REPS Obligation



GreenCo Strategy to Meet REPS Requirements

- Renewable resources
 - Set-asides and existing hydro
 - Participate in new renewable projects as appropriate
 - About 2/3 of compliance
- Energy Efficiency
 - Remaining 1/3 of compliance
 - Design programs based on demographics of EMCs

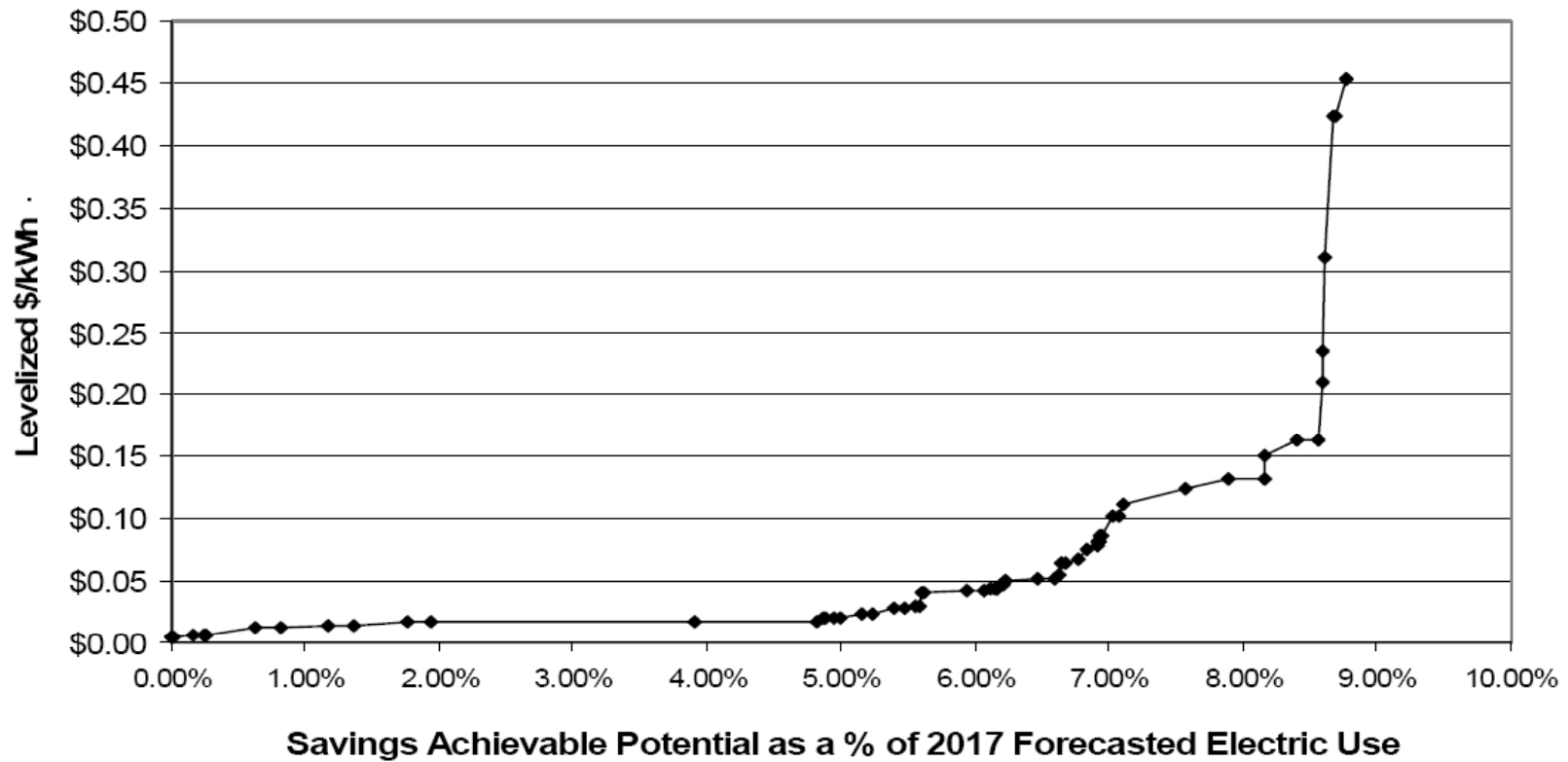
Evaluation of EE Programs

- GDS Associates was selected to determine the potential for EE programs in the service area of the NC EMCs

EE Program Evaluation Objectives

- Technical Potential
 - Feasible from an engineering perspective
 - Assume 100% penetration of all measures
- Achievable Potential
 - Based on implementation of programs
 - Three levels of market penetration over 10 years
 - Low 20%
 - Medium 40%
 - High 60%

Residential EE Supply Curve



Demographics of NC EMCs

- Serve over 950,000 homes and businesses
- In 93 of the 100 counties of NC
- Almost 99% of consumers are residential, seasonal, or commercial
- These 3 groups account for over 90% of energy sales

Demographics of NC EMCs (Cont'd)

- Electric heat 58%
- Electric water heating 87%
- Single family homes 72%
- Mobile homes 16%
- Homes older than 25 years 49%
- \$25,000 or less annual income 21%
- \$75,000 or less annual income 75%

Target Market for EE Programs

Residential consumers in older homes with electric heat and electric water heating and income less than \$75,000.

Results of GDS Analysis

Based on analysis of energy efficiency program potential these programs were recommended

1. Energy Star Lighting
2. Energy Cost Monitor
3. Weatherization and Insulation (low income and non-low income)
4. Electric Water Heating Efficiency
5. Residential Solar Water Heating
6. New Home Construction
7. Energy Star Appliances
8. Refrigerator/Freezer Turn-In

EE Pilot Programs

- Marketing efforts
- Distribution channels
- Incentive levels
- Achieved penetration levels
- Overall costs

Energy Star Lighting Pilot Study

- Contests
- Coupons
- Cash back with proof of purchase
- Give-aways
- Displays and sales at local office

Recommended Energy Star Lighting Program

- Direct mail of 2 CFLs to each residential consumer
- Coop pays 100% of measure and program costs
- Research indicates high installation rate

Water Heating Efficiency Program Pilot

- Technologies
- Vendors
- Marketing & advertising
- Price points
- Installation service

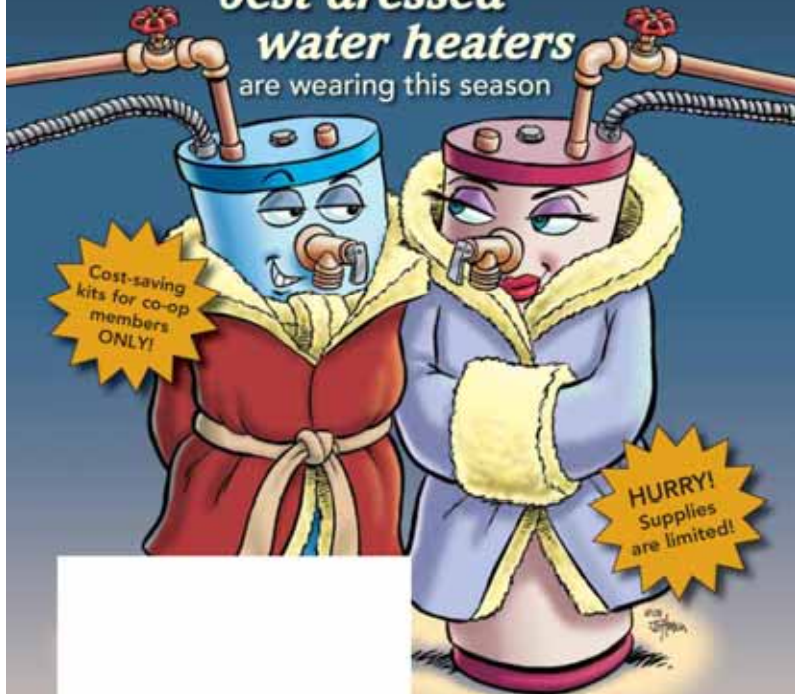
Recommended Water Heating Efficiency Program

- Water Heating Kit
 - Tank wrap
 - Low flow aerators and shower head
- Coop sells for about 50% of cost of kit
- No installation offered
- Sell from local office
- “Best Dressed Water Heater” Advertising

Carolina country

November 2008

What the
best dressed
water heaters
are wearing this season



Cost-saving
kits for co-op
members
ONLY!

HURRY!
Supplies
are limited!

See back cover for details.

Wrap up in Savings

Save Energy, Save Water, Save Dollars



Buy this
for only
\$12
plus tax



Electric Water Heater Blanket & Pipe Insulation

- 3-inch thick insulation
- Includes tape & instructions
- One size fits all up to 40-gallon tank
- 6 feet of pipe insulation

South River Electric
Membership Corporation

... and get all this FREE!

Earth Massage Showerhead

- Adjustable 9-jet turbo massage
- As featured in Good Housekeeping magazine

Kitchen Faucet Aerator

- Easy fingertip on/off feature

Two Bathroom Faucet Aerators



Total
Kit Value
Over \$50!

How to order

South River EMC
1-800-338-5530
sremc@sremc.com

\$12
plus tax

Hurry!
Supplies are limited!

Offer expires
Dec. 15, 2008

Installation available for an additional \$10.

Maximize your efficiency for maximum savings

- A water heater jacket can reduce standby energy loss by 25%-45%, reducing water heating cost 4%-9%*
- Installed kit can lower water heating costs \$80 annually.
- Your kit could pay for itself in 3-6 months or less.
- Actual savings depend upon the age, efficiency, condition and location of existing water heater.



* U.S. Dept. of Energy, Energy Efficiency and Renewable Energy

Additional EE Pilots Underway

- Community Energy Efficiency Campaign
 - Low Income and Non-Low Income
- Solar Water Heating
 - Focused on residential
 - Exploring small business applications
- Power Cost Monitor
 - In home display of consumer's energy use and cost

Summary

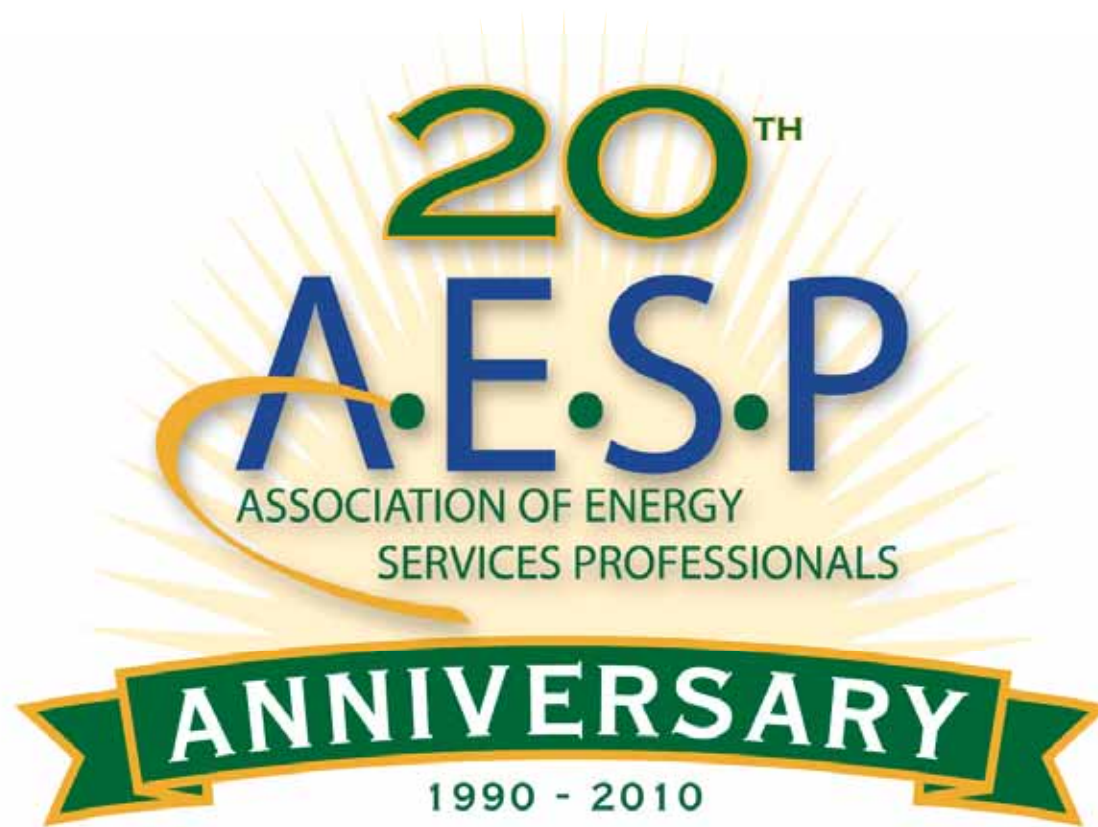
- GreenCo Solutions owned by electric cooperatives
- GDS analyzed several potential EE programs
- 8 programs were selected by GreenCo members
- Pilot testing completed for some and still underway for others
- 2 programs have been implemented

Contact Information

Tim Bennett
Director, Business Operations
GreenCo Solutions, Inc
919.645.2221
tim.bennett@ncemcs.com



Your Touchstone Energy® Partner 



CELEBRATE WITH US NEXT YEAR IN TUCSON!