Electric Cooperatives of South Carolina

- 20 cooperatives
- 70% of land mass
- 1.5 million consumers
S.C. Co-op Challenges

- Current generation mix
- Growth
- Housing
- Illiteracy
- Income
Woman's story highlights struggles for energy relief

Frances Sanders
Gaffney, S.C.

Buy photo
Frances Sanders of Gaffney talks about the help she received to renovate and weatherize her home recently. Labor and new equipment provided by an energy efficiency pilot program is expected to cut Sanders' utility bill in half.
Two Paths to the Future

We are nearing the fork in the road.
Path One: Nuclear
Cost to Build

Current Generation: $753 / kW

New Natural Gas: $2,599 / kW

New Nuclear: $5,000 / kW
Path Two:
Energy efficiency and clean energy
Linda Butler
St. Matthews, S.C.
Linda Butler’s Savings

$ 518  December 2008
$  95  December 2009

$ 423 saved

<table>
<thead>
<tr>
<th>TOTAL DUE NOW</th>
<th>$ 95.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFTER DUE DATE PAY</td>
<td>$ 96.42</td>
</tr>
</tbody>
</table>

The power cost adjuster is .00500.
2010 disconnect/reconnect trip charge is $35 before 4 PM and $70 after 4 PM.
1.5% will be added to any balance remaining after 5 PM. Service may be discontinued if payment is not made.
Unprecedented investment in energy efficiency

- Weatherize homes
- Replace resistance heating
- Replace old heat pumps
### Three targets

<table>
<thead>
<tr>
<th></th>
<th>Homes</th>
<th>Megawatt-hours saved per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weatherization</td>
<td>160,000</td>
<td>290,000</td>
</tr>
<tr>
<td>Replace resistance heating</td>
<td>60,000</td>
<td>550,000</td>
</tr>
<tr>
<td>Replace old heat pumps</td>
<td>32,000</td>
<td>183,000</td>
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<tr>
<td></td>
<td></td>
<td>1,023,000</td>
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</tbody>
</table>

10% Reduction in Residential Use
## Energy efficiency retrofits *and* other residential programs

<table>
<thead>
<tr>
<th>Forecast for 2020</th>
<th>Residential total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy (megawatt-hours)</td>
<td>13,344,000</td>
</tr>
<tr>
<td>Goal -- save 20%</td>
<td>* 0.20</td>
</tr>
<tr>
<td>Energy efficiency savings (megawatt-hours)</td>
<td>2,668,800</td>
</tr>
</tbody>
</table>

**20% Reduction in Residential Use**
Core Member Transaction

1. I.D. of Homes to be Audited
2. Energy Audit by BPI Certified Auditor
3. Review of Audit Results
   - Decision as to Cost Effectiveness
4. Loan Processed
   - Consumer-member (landlord/tenant)
   - Education re: savings/loan
3a. Deselect
   - Falls outside of Cost Effectiveness
5. Selection of Contractors
   - (Approved list?)
   - Work proceeds based on audit specs
   - 1 or 2 out of 3 Strategies
6. Post-Retrofit Audit by BPI Certified Auditor
   - (Approved list)
7. “Co-op” Pays Contractor
8. Member Pays On-bill
   - 1/3
   - 2/3
S.C. Results
when fully implemented

- Energy savings
  - 2,700,000 megawatt-hours per year.

- Consumer savings
  - $270 million per year.

- Reduced CO$_2$ emissions
  - up to 2.4 million metric tons per year.

- Thousands of jobs

- Avoid paying for $\frac{1}{2}$ of a nuclear plant
Private/public partnership. A way to provide the capital for loans.

- Rural Energy Savings Program (Rural Star) H.R. 4758 and S. 3102
- Up to $4.9 Billion
  - $750 million for S.C.
- RUS lends to co-ops >> co-ops lend to members for upgrades >> members repay co-ops on the power bill >> co-ops repay RUS
Rural Star Benefits

- Reduce burden on low-income families
- Reduce demand for electricity
- Reduce environmental impacts
- Create jobs
- Preserve capital for sustainable technology
- Combines co-op’s need, member’s need and America’s need.
Two Paths to the Future

We are nearing the fork in the road.