Meeting the Requirements of the NC Renewable Energy and Energy Efficiency Portfolio Standards (REPS)

Or

Re-Powering Our Region With Energy Efficiency and Renewable Development
• Program name developed by Blue Ridge Electric to respond to the state mandated NC Renewable and Energy Efficiency Portfolio Standard (REPS)

• Helps members identify with program & understand the costs & benefits of meeting the State requirements
NC Energy Legislation (SB3)

• Signed into Law August 20, 2007
  – Promotes development of renewable energy and energy efficiency through the implementation of a portfolio standard (REPS)
  – NC was 25th state to pass REPS legislation
  – First in the southeast (VA in 2008)
  – 5 additional states now—California first in 2002
NC REPS (Renewable and Energy Efficiency Portfolio Standards)

• Standards applicable to retail providers
  – IOUs, cooperatives, municipalities

• Schedule of Standards (EMCs & Munis)
  – 2012—3% of 2011 NC retail sales
  – 2015—6% of 2014 NC retail sales
  – 2018 and thereafter—10% of 2017 NC retail sales

• Recovery of costs from consumers
  – GreenSmart charge on member bill — Began 6/2009
Program Components

1. Energy Star CFL Promotion *
2. Power Cost Monitor *
3. Water Heater Energy Efficiency Kit *
4. Low-Income Weatherization *
5. Community Energy Efficiency Campaign *
6. Energy Star New Homes *
7. Energy Star Appliances *
8. Commercial Energy Efficiency & Renewables *
9. Solar Thermal Water Heating *

* Program will be implemented in 2009
* Program modified with late 2009 or 2010 start date
Energy Star CFL Promotion

• Promote sales & distribution of 60,000 CFLs/year
• Establish sales outlets at district offices
• Provide CFLs re promotion of BRE programs
  – Operation Roundup
  – Bank Draft
• Establish On-Line Store for EE products
• Establish options for CFL recycling
Why CFL Promotion

• Energy Savings potential largest of any current conservation measures
• All households Benefit from participation—47 Incandescent bulbs/house
• Projected Savings @ 49 kWh / year
• Average use predicted at 3 hours / day
• Useful life of 8 years
Discounted CFLs Available at Blue Ridge Electric

<table>
<thead>
<tr>
<th>Quantity</th>
<th>13w</th>
<th>18w</th>
<th>23w</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>2</td>
<td>$2.00</td>
<td>$3.00</td>
<td>$4.00</td>
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<tr>
<td>3</td>
<td>$3.00</td>
<td>$4.50</td>
<td>$6.00</td>
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<tr>
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<tr>
<td>5</td>
<td>$5.00</td>
<td>$7.50</td>
<td>$10.00</td>
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</table>

FREE  Buy 5 Get 1 Free!

<table>
<thead>
<tr>
<th>Quantity</th>
<th>13w</th>
<th>18w</th>
<th>23w</th>
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<td>10</td>
<td>$10.00</td>
<td>$15.00</td>
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</table>

FREE  Buy 10 Get 2 Free!

CFLs may be purchased at your local Blue Ridge Electric office or at [www.BlueRidgeEMC.com/GreenSmart](http://www.BlueRidgeEMC.com/GreenSmart).

CFLs may be purchased at:
- Caldwell Office
  219 Nummy Circle, NE
  (279) 754-9071
- Westview Office
  2411 US Hwy 421 South
  (278) 244-8994
- Ashe Office
  716 Mt. Jefferson
  (334) 246-7818
- Allegheny Office
  1019 Hwy. 31 North
  (336) 372-4645

HURRY! These bargain priced CFLs are available to members while supplies last!

CFLs consume 75% less energy and last 10x longer than traditional bulbs.

www.BlueRidgeEMC.com/GreenSmart

Together We Make a World of Difference
## How Much Cash do Light Bulbs Burn?

Although you pay more up front for energy-efficient light bulbs, you’ll pay much less for electricity and need to replace bulbs far less often. Below we compare three light bulbs suitable for an overhead light, and one of the brightest available LEDs.

<table>
<thead>
<tr>
<th></th>
<th>Incandescent</th>
<th>CFL</th>
<th>Halogen</th>
<th>LED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical Price per Bulb</td>
<td>$0.40</td>
<td>$2.60</td>
<td>$3.00</td>
<td>$45.00</td>
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<tr>
<td>Average Lifetime in Hours</td>
<td>1,500</td>
<td>10,000</td>
<td>2,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Approximate Lumens (Brightness)</td>
<td>850</td>
<td>850</td>
<td>850</td>
<td>120</td>
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<tr>
<td>Power Use, in Watts</td>
<td>60 W</td>
<td>13 W</td>
<td>60 W</td>
<td>2.5 W</td>
</tr>
<tr>
<td>Cost to Operate Bulb 1,500 hours*</td>
<td>$9.45</td>
<td>$2.04</td>
<td>$9.45</td>
<td>$0.39</td>
</tr>
</tbody>
</table>

*The approximate life span of an incandescent light bulb. Cost is based on the average electricity price of 10.5 cents per kWh.
Inside cover wrapper ad in the April issue of Carolina Country
Facts About Hot Water Use

Where does all the hot water go?

- Tub: 12%
- Clothes Washer: 26%
- Dishwasher: 14%
- Sinks: 11%
- Shower: 37%

48% for Shower & Sinks

www.BlueRidgeEMC.com
Low-Income Weatherization

• Provide supplemental funding to existing weatherization programs of local agencies
  – WAMY Community Action Agency
  – Blue Ridge Opportunities Commission
  – Blue Ridge Community Action

• Enhance program delivery with additional EE materials like CFLs & water heater kits

• Assist with local PR and informational materials for clients & partner agencies
Solar Thermal Water Heating

- Work with existing vendors and homeowners to provide rebates ($500) for installed systems
- Convert BTU output to KWH and obtain Renewable Energy Credits to meet REPS solar set aside
Energy Star New Homes

• Work with local HBA and buyers to scope services and incentives for new ES homes
• Provide incentive to HERS (Home Energy Rating Survey) rater to ensure compliance & obtain savings projection
• Provide incentive to homebuyer (CFL & Water Heater kit or On-line Store credit) and develop ES rate
Energy Star Appliances

• Determine level of incentive / rebate for ES appliances—Build on US/NC Rebate Program-ARRA
• Promote NC ES Appliance Sales Tax Holiday
  — November 6-7-8, 2009 “Green Tax Holiday”
• Cross promote other products as incentive
  — CFLs and EFI Online Store Credits
• Review options for other appliances and commercial product applications
Commercial EE & Renewable

• Develop specific projects that meet REPS Solar set aside & meet overall Energy Efficiency goals
• Coordinate with GreenCo Solutions re purchase of Solar RECs to meet goals
• Seek out solar thermal projects with ASU and other large commercial scale projects
From *Fast Company* magazine, one perspective on how our energy future might look in the next 100 years
Questions / Discussion

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GreenSmart

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electric membership corp.

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