

The Electric Cooperatives

**Demand Response & Energy Efficiency:
Past, Present & Future from the Perspective of the
Electric Cooperatives in Virginia**



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Energy Efficiency and Conservation
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Catherine Powers,
VP Forecasting & Member Services
ODEC



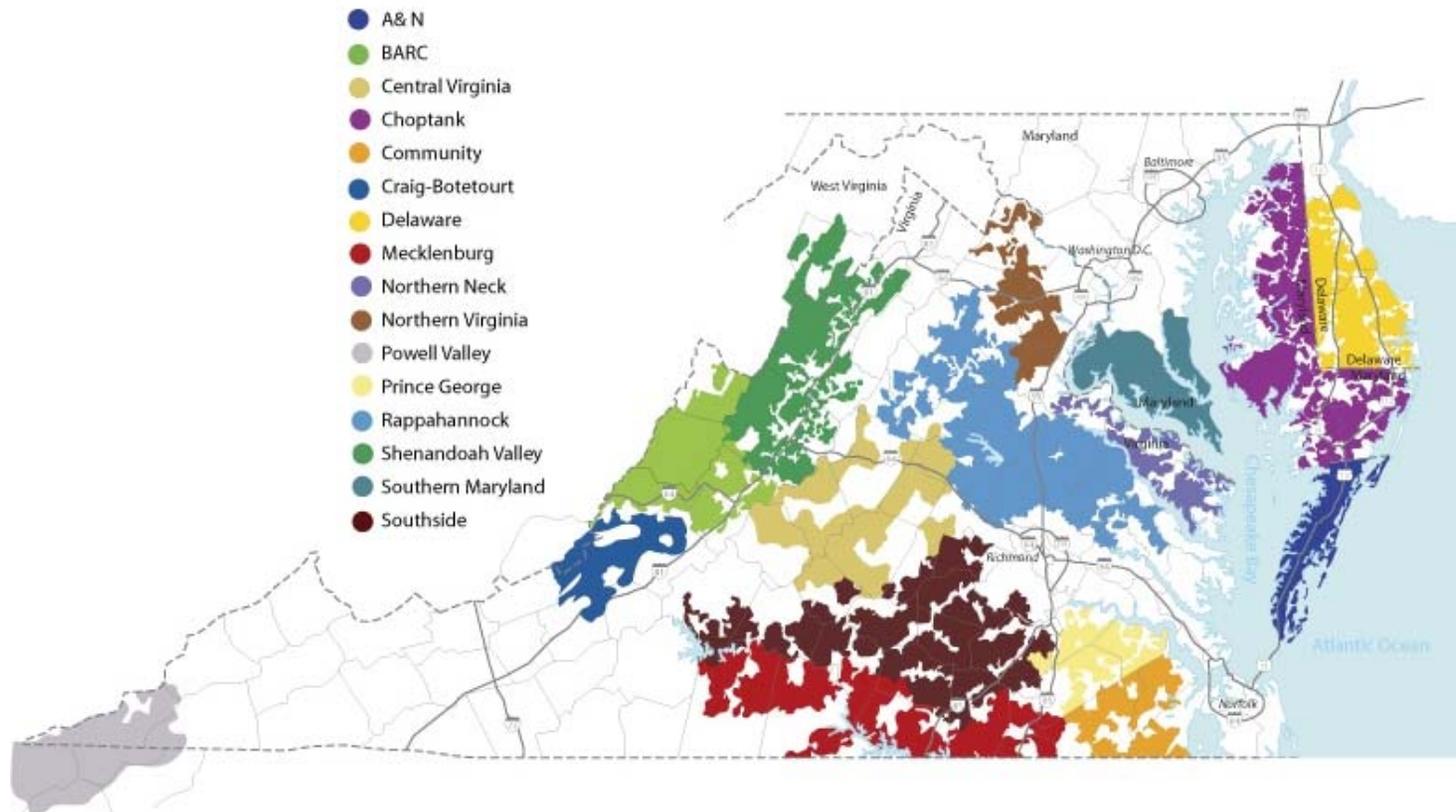
The Virginia Electric Cooperatives – Who Are We?

- **There are 13 electric cooperatives in Virginia, serving over 475,000 meters, and approximately 1,000,000 citizens of the Commonwealth.**
- **As member-owned organizations, consumers are the shareholders of the cooperatives with their own elected Board of Directors.**
- **As such, all costs incurred by the electric cooperative are borne by the member-owners.**





Virginia, Maryland & Delaware Association of Electric Cooperatives



www.vmdaec.com





Electric Cooperatives Commitment to DR-EE

- **The Cooperatives have, for many years, been committed to conservation, energy efficiency, and demand response efforts and programs.**
- **Programs are evaluated and implemented when they are cost beneficial. Based on the business model under which electric cooperatives operate, they do not receive any enhanced return on investment on programs as do Investor-Owned Utilities.**





Electric Cooperatives and Demand Response

- **Most of Virginia's Electric Cooperatives have conducted load management for over a quarter of a century through direct load control:**
 - Water heater switches
 - Air conditioner switches
- **In addition, they exercise load control through voluntary measures at the option of the retail members. These measures include:**
 - Rates: Interruptible Rates and Time-of-Use Rates
 - Voluntary Member Actions (for curtailing load during high peak times)
- **The system-wide efforts which help to improve system reliability and stability and reduce overall consumption in times of increased demand include:**
 - Voltage reduction





Conservation

- **The Cooperatives also have encouraged for many years the efficient use of energy by the Cooperatives' predominantly residential, retail members.**
- **While each Cooperative produces and provides to their members literature and information on energy efficiency, they also work together to develop educational material that can provide a consistent message across all the systems.**





Conservation (continued)

- **Virginia's Electric Cooperatives have many outreach programs for informing their members how to conserve energy and use it more efficiently via their websites, bill inserts / stuffers, and hand outs at various cooperative meetings.**
- **Through on-line energy audits, energy calculators, and home energy audits, cooperative members can learn about their own consumption patterns and are provided with suggestions on ways to save energy.**





Conservation (continued)

- Articles on energy savings opportunities and quick tips on ways to save energy are monthly, regular features in the ***Cooperative Living*** magazine, a publication that reaches all member-owners. Over the past several months, the topics that have been addressed include:
 - Appliance Usage (what uses electricity in the home and how much)
 - How to Read the Energy Star Label
 - The Benefits of Landscaping , Earth-Friendly Gardening
 - Fuel Economy / Efficiency and Hybrid Vehicles
 - Value of Buying Local Foods
 - Preparing Homes for Winter / Summer
 - Water Heating Tips
 - Technologies: Geothermal
 - Break the Electricity Addiction
 - Balancing the Grid with Demand Response





Electric Cooperatives – Energy Efficiency Efforts

- **The Cooperatives have also for many years encouraged the efficient use of energy by the Cooperatives' predominantly residential, retail members.**
- **EE programs which have been implemented for a few decades include consumer education programs, home energy auditing, and new home construction programs.**





Electric Cooperatives and Energy Efficiency

- **The Cooperatives have initiated new programs to enhance their EE portfolios, including:**
 - Donation of CFL replacement bulbs to the Virginia's State Parks
 - CFL savings coupons and bulb give-away programs
 - Energy Efficiency home retrofit consumer loan program in conjunction with Virginia's Farm Credit agencies
 - Surveys and polling efforts to allow the Cooperatives to gain a better understanding of consumer behaviors and willingness to participate in additional voluntary efforts for conservation and usage shifting
 - Providing an energy efficiency calendar





Electric Cooperatives and Energy Efficiency

- **New programs (continued):**

- Additional voluntary load reduction programs
- Additional rollout of air conditioning cycling devices and the study of various cycling strategies and consumer reaction;
- Educational efforts through clinics held at local hardware stores;
- Work in classrooms and in schools, including safety seminars and printed materials for students to take home;
- Energy Expo fairs for members with the opportunity to learn more about how to improve the efficiency of their homes/businesses





Electric Cooperatives and Energy Efficiency

- **Moving forward, the Cooperatives continue to evaluate programs that will be beneficial and feasible to implement for their members.**
- **New programs proposed for 2010:**
 - Lighting programs for both residential and Commercial and Industrial
 - Continuation of educational articles in ***Cooperative Living*** magazine, hand-outs, and website
 - Expansion of direct load control / load management programs
 - Refrigerator Bounty / turn-in program
 - HVAC Maintenance program
 - Energy Efficiency Calendar





Electric Cooperatives - Commitment to Energy Innovation

- **Virginia's Electric Cooperatives continue to enhance program offerings for conservation, energy efficiency and demand response programs. We view this as a priority to help meet our power requirements.**
- **There are a plethora of programs that could be rolled out to members to encourage and achieve savings of both energy and demand; however, obstacles exist both on the practical and economic side. For example, the number of consumers per mile of line could render programs cost prohibitive, and the geographical diversity might prevent a "one program fits all" scenario.**

