Members Save Money While Saving Power:

Roanoke Electric Cooperative Leads the Way with a Debt-Free On-Bill Program for Energy Efficiency

On-bill Financing: Opportunity and Innovation

Energy efficiency is one of the least expensive and most under-utilized resources available to meet our energy needs. Efficiency measures also help us save money on our electric bills and contribute to cleaner air and a healthier environment. Over the last twenty years, on-bill financing ("OBF") programs have increasingly been used to pay for upgrades that allow customers to realize these benefits.

Most commonly, OBF programs have worked like a loan: the utility or private lender loans the customer money for upgrades—such as improved insulation, more efficient heating and cooling systems, and duct sealing. Participating customers repay the loan for those upgrades with an added monthly charge on their power bill. But these traditional OBF programs are not accessible to those who could most benefit. It is difficult for these programs to serve: (1) low or moderate-income customers who pay the highest percentage of their income on electricity and have the least capacity to take on new debt; (2) renters who have split incentives with their landlord; and/or (3) customers who do not have good credit. Roanoke Electric Cooperative ("Roanoke") has eliminated these barriers with its Upgrade to $ave program.

Under Upgrade to $ave, Roanoke members can opt in to a voluntary tariff that (1) allows the utility to pay for energy efficiency upgrades that provide immediate savings on the member's electric bill, and (2) allows the utility to recover its costs through a fixed charge on the bill that is less than the total estimated savings. Roanoke's program is modeled on the trademarked Pay As You Save® ("PAYS®") program that has been successfully implemented in other states.[1] To pay for its investments in energy efficiency, Roanoke is drawing upon low cost financing available through the Energy Efficiency & Conservation Loan Program ("EECLP") launched last year by USDA's Rural Utilities Service.

Program Structure

Upgrade to $ave is a tariff-based program. Because it is structured as a tariff, no personal loans are made to members. Participation does not depend on the members' credit scores. Members in good standing[2] with Roanoke are eligible to opt in to the tariff. With that agreement, the utility can invest in cost-effective energy efficiency upgrades and recover its costs while the participating members can anticipate saving money on their electric bills.[3] The tariff is tied to the meter where the upgrades are installed. No obligation to repay Roanoke for the upgrades follows the member if he or she moves out of the building. Instead, the tariff would apply to any subsequent tenant or occupant until the costs of the upgrades have been recouped.

Upgrade to $ave does not incentivize Roanoke's members to purchase more electricity from the Electric Membership Cooperative ("EMC") or to install new equipment that will use additional electricity from Roanoke. In fact, the goal of the program is for members to purchase less electricity and pay decreased electric bills, without increasing costs for members who have not opted in to the program.[4] This reduced consumption also helps Roanoke by

reducing the amount of power it must purchase, including expensive peak power during the highest periods of daily energy demand.

Upgrade to $ave also helps Roanoke meet its North Carolina Renewable Energy and Energy Efficiency ("REPS") benchmarks, which require EMCs to obtain a percentage of the power they provide from renewable energy generation or from energy efficiency measures that decrease energy demand.[5] Although investor-owned utilities like Duke Energy are required to file REPS energy efficiency programs for approval with the North Carolina Utilities Commission ("Commission"), EMCs like Roanoke are not required to do so.[6] Because it is a member-owned utility, Roanoke is also not required to obtain approval from the Commission for the Upgrade to $ave tariff.[7]

EMC Governance and Authority

The broad discretion North Carolina EMCs enjoy—allowing them to design and implement programs like Upgrade to $ave—comes from their structure under North Carolina law as member-owned cooperatives.[8] EMCs are directed to provide electricity at the lowest cost consistent with sound economy and prudent management of the cooperative, a policy directive consistent with providing OBF programs.[9] An EMC's board of directors is elected by its members. If members disagree with the actions of the board, they can elect different directors. Members are thus in the position of control, providing a check on potentially abusive or unfair practices that customers of investor-owned utilities do not have.[10]

Under this authority, EMCs may set rates for electric service so long as those rates are reasonable and nondiscriminatory.[11] All reasonable tariffs are designed to recover the EMC's costs for providing services to its members. Just as an EMC can factor in cost-recovery for capital expenditures when it sets its rates—such as new electric poles or transmission lines—it can factor in the cost-recovery for the energy-efficiency upgrades at the member's residence when setting the Upgrade to $ave tariff rider for any given location.

Inherent in the power to set rates for service is the power to disconnect for nonpayment or for other noncompliance with the terms and conditions of membership.[12] Under the PAYS® model, the member can expect a *lower* bill. But nonpayment of the bill can result in disconnection under the same terms and conditions as for members who are not on the Upgrade to $ave tariff rider. There is no reason to treat nonpayment of the Upgrade to $ave rider any differently from nonpayment of other fixed charges connected with the provision of electric services on a member's bill, such as a facilities charge.[13]

Similarly, EMCs have the authority to tie the OBF program to the meter where upgrades have been installed. Until the utility's costs are recovered, it is reasonable for a subsequent occupant to pay a fair portion of those upgrades while benefiting from the savings generated by the investment. Because Roanoke is not extending a loan or any other consideration to the occupant who initiates the program, it is prudent to recover costs from the investment in energy efficiency upgrades from whomever is currently receiving the program's benefits. The energy-savings of those upgrades accrue to those occupying the building, whether those occupants initiated the tariff or moved in years after they were installed.[14] Until the upgrades have been fully paid for under the terms of the tariff, they remain the property of Roanoke.

Because the tariff runs with the meter, it is important to provide notice to any prospective purchaser or tenant that the on-bill payment obligation will remain with the property until the costs of the efficiency upgrades have been recovered. As a condition of participating in the program, the EMC can require the owner of the property to notify any subsequent purchaser or renter that the meter at that location is subject to the PAYS® tariff. Another option is to file

notice of the PAYS® program with the local register of deeds. Roanoke is currently using the first option, relying on a contractual obligation[15] to provide notice rather than risk any complications from banks that might insist on having the utility's interest in recovering its costs eliminated at the time of sale before providing a mortgage on the property.[16]

Because of their autonomy to design and implement OBF programs, EMCs are uniquely positioned in North Carolina to adopt innovative strategies that save their members money, stimulate the local economy with jobs for contractors, improve the quality of the building stock, help the EMC comply with its REPS requirements, and reduce the EMC's costs for providing energy, saving all of its members money. It truly is a win-win-win proposition for EMCs, their members, and the local economy.

Replicating the Model

Roanoke worked with the Rural Utilities Service to secure financing for its investments through EECLP, and it collaborated with other electric cooperatives that had implemented PAYS® programs.[17] The Upgrade to $ave program provides a model of successful collaboration that opens access to the benefits of energy efficiency and immediate savings to members of all income levels.

Roanoke has indicated its willingness to provide information and resources for other EMCs interested in developing a similar program.[18] By working together to develop programs like Upgrade to $ave, North Carolina EMCs can provide cost- and energy-saving benefits to their members, and can establish themselves as EMC leaders.

For further information about on-bill financing in North Carolina, please contact:

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Endnotes

[1] Roanoke obtained a license for the trademarked PAYS® program before designing and implementing the tariff. PAYS® is the licensed intellectual property of the Energy Efficiency Institute, Inc. Inquiries about licensing can be directed to Harlan Lachman: Harlan@eeivt.com

[2] Roanoke defines "good standing" to mean members who have not had more than two disconnections for non-payment in the prior twelve month period. Virtually all members meet this standard. When Roanoke provides cost-saving efficiency upgrades to members struggling with high bills, it also helps reduce its own losses from uncollectible bills. When establishing eligibility criteria, EMCs may want to keep in mind that default rates for OBF programs have been very low, averaging from 0% to 3%, much lower than the general default rate for unsecured consumer lending. State and Local Energy Efficiency Action Network: *Financing Energy Improvements on Utility Bills: Market Updates and Key Program Design Considerations for Policymakers and Administrators,* prepared by: Zimring, Leventis, Borgeson, Thompson, Hoffman, and Goldman of Lawrence Berkeley National Laboratory (May 2014).

[3] Roanoke also pays attention to the building's structural integrity when determining whether it is suitable for the program, taking into consideration its expected lifespan and whether it is up to code. The program is only available for buildings permanently anchored to a foundation. Roanoke Electric Cooperative, *Rate Schedules EC 31 Sub 40, Rider EECLP,* p 27 (May 2015).

[4] Roanoke has intentionally targeted its Upgrade to $ave program to its existing members who have demonstrated higher than average electricity usage, particularly in summer and winter, increasing the likelihood that those participating will see immediate savings from reduced use of Roanoke's electrical service. EMCs should be aware that an OBF program that instead incentivizes an increase in the use of its services or encourages a switch in fuel-types to electricity would potentially require review and approval from the N.C. Utilities Commission. N.C. Gen. Stat. § 62-140(c); 4 N.C. ADMIN. CODE 11.R8-68.

[5] N.C. Gen. Stat. § 62-133.8.

[6] The filing and approval requirements for REPS energy efficiency programs only apply to investor-owned utilities; they do not apply to EMCs. 4 N.C. ADMIN. CODE 11.R8-68(c).

[7] EMCs are excluded from the definition of "public utility" under N.C. Gen. Stat. § 62-3. As a result, the Commission does not have ratemaking authority over EMCs. EMCs are required to file copies of their tariffs with the Commission and with the Rural Electrification Authority ("REA"), but neither the Commission nor the REA has power to disapprove an EMC tariff. N.C. Gen. Stat. § 62-138(f); N.C. Gen. Stat. § 117-3; 4 N.C. ADMIN. CODE 08.0206. But *see* Note 4 above with regard to programs that may require commission approval.

[8] *Hammonds v. Lumbee River Elec. Mbrshp. Corp.,* 178 N.C. App. 1, 22, 631 S.E.2d 1, 14 (2006) ("N.C. Gen. Stat. § 117-14 (a rural electric cooperative board of directors "shall have power to do all things necessary or convenient in conducting the business of a corporation") and § 117-17 ("[e]ach corporation formed under this Article is hereby vested with all power necessary or requisite for the accomplishment of its corporate purpose and capable of being delegated by the legislature") unequivocally establish the legislature's intent that a 'rule of deference,'...be applied to restrict judicial oversight of the actions of rural electric cooperative Board members unless there is no rational basis for the Board's decisions.")

[9] N.C. Gen. Stat. § 117-10

[10] N.C. Gen. Stat. § 117-13

[11] N.C. Gen. Stat. § 117-16.1; *Time Warner Entm't-Advance/Newhouse P'ship v. Carteret-Craven Elec. Membership Corp.,* 506 F.3d 304, 311 (4th Cir. 2007).

[12] N.C. Gen. Stat. § 117-16.

[13] In New Hampshire, where the Public Utilities Commission's ("PUC") regulatory authority extends to on-bill finance programs, the PUC found that a utility's PAYS® program can allow disconnection for nonpayment because "[t]he obligation is complementary and interlocked with the provision of utility services and is an integral part of the utility service." Given that the tariff results in lower overall bills for service, the Commission found that there should be fewer incidents of disconnection for nonpayment. New Hampshire PUC, DE 01-080, Order 23,758, *New Hampshire Electric Cooperative, Inc. and Public Service Company of New Hampshire Pilot Pay-As-You-Save (PAYS) Energy Efficiency Program* (Aug. 7, 2001). A similar conclusion has been reached for PAYS® tariffs from utilities that are regulated by PUCs in Kansas, Michigan, Kentucky, and Hawaii (the Energy Efficiency Institute has compiled a helpful list of PUC orders relating to the approval for PAYS® programs).

[14] In New Hampshire, the PUC approved a PAYS® program that was tied to the meter, analogizing it to the already acceptable practice of charging subsequent residents for a proportional cost of line extensions that went beyond 300 feet to the property, the costs of which were recovered on the customer's bill over a sixty-month period. It is just as acceptable to bill a subsequent occupant a proportional share of a line extension as it is to bill a subsequent occupant for the PAYS® upgrades. New Hampshire PUC, DE 01-080, Order 23,758. Similarly, the PUC in Kansas found that a PAYS® program—called How$martsm—could be tied to the meter because the payments are "directly related to providing reasonably efficient and sufficient service...[and] to efficiency-related overall cost reductions to customers on their bill." State Corporation Commission of the State of Kansas, Docket No. 07-MDWE-788-TAR, *In the Matter of Midwest Energy Seeking Commission Approval to Implement a Pay-As-You-Save Program for its Electric Service* (Dec. 20, 2007).

[15] By contract, Roanoke requires the current owner to be responsible for notifying prospective tenants or purchasers of the benefits and obligations of the Upgrade to $ave tariff at properties where the program's efficiency upgrades have been installed.

[16] It is possible, however, for an EMC to provide notice with the register of deeds without necessarily encumbering the property or creating a lien. An EMC could file an affidavit—indexed to the property in question—that would provide notice to a prospective buyer that the property in question is currently under a special tariff to recover costs associated with energy efficiency upgrades to the property. N.C. Gen. Stat. § 161-14 (requiring that all written instruments be immediately registered). Though such a notice is not included in the list of filings given in the statute, the law makes several references to "an instrument for which no other provision is made." *See, e.g.,* N.C. Gen. Stat. § 161-10. As another alternative, the PAYS® Program in Kentucky (How$martKY™) uses a UCC-1 form to secure its interest in the upgrades for the term of the cost-recovery.

[17] Roanoke Electric Cooperative, *Roanoke EMC Business Plan for Financing Energy Efficiency* (July 9, 2014).

[18] Roanoke Electric Cooperative, *Open Letter by Roanoke CEO Curtis Wynn* (Feb. 23 2015); Roanoke Electric Cooperative, *Sharing Insights of Our Experience with the EECLP Program and the PAYS® System* (April 8, 2015).