Status Report for programs based on the Pay As You Save® (PAYS®) system

February 24, 2013

New Hampshire: The New Hampshire Public Service Commission (NHPUC) in its November 29, 2001 Order No. 23,851 approved the first PAYS® pilots at Public Service of New Hampshire (PSNH) and New Hampshire Electric Co-op (NHEC). PSNH offers the tariff to municipal customers seeking to implement energy efficiency projects. NHEC offered the tariff to all its customers, but appears to have suspended the program. Since inception, these two utilities have used PAYS® to implement energy efficiency projects costing more than $6.4 million with less than $100 in bad debt resulting from measure failure or missed payments (less than two thousandths of one percent).

In its December 30, 2004 Order No. 24,417, the NHPUC ended the pilot phase and ordered both utilities to continue offering the PAYS® tariff to their customers as they had been with minor changes to their programs (e.g., allowing a greater portion of estimated savings to cover project costs). Although this order was effective through 2007, PSNH continues to offer a PAYS® tariff to their customers in a program called SmartStart and advertise its availability. NHEC staff have indicated that the coop is no longer operating a SmartStart program even though the program is still advertised on the coop's website: (http://www.psnh.com/Business/Efficiency/Paysave.asp; http://www.nhec.com/business_energysolutions_smartstart.php).

After 8 years, demand has remained high. PSNH's June 30th 2010 second quarter report stated the entire budget for 2010 had already been committed. However, in 2010, in response to a significant reduction of overall efficiency program funding, the NHPUC authorized PSNH to take its entire SmartStart revolving fund allocation to use for its rebate programs. PSNH continues to operate SmartStart using repayments from previous year's projects to fund new projects.

In the last fully funded year of operation, 2009, PSNH completed 59 municipal energy efficiency projects with contractor costs averaging $15,032 (for a total of $866,879). PSNH received $37,451 as a shareholder incentive and $15,757 to cover their administrative and implementation costs. These costs to ratepayers (from PSNH's 2009 efficiency budget) were offset by program fee charges of $31,208 (to cover bad debt that since the program's inception has been zero). According to PSNH estimates, lifetime kWh savings for 2009 projects will be 20,268,741 kWh. Lifetime bill savings from these projects are estimated to be $3,254,339. In 2009, PSNH ratepayers paid $22,010 to get 59 municipalities to invest $866,879 and save more than $3.2 million – a ratepayer cost of just over a tenth of a cent per kWh saved ($0.00109).

Measures installed in the PSNH program include street lighting; lighting upgrades; and heating, ventilating, and air conditioning (HVAC) improvements. Up-front costs are paid with system benefit funds through a revolving loan fund. Participants are allowed access to the same rebates offered to customers who are not allowed access to the PAYS® tariff. Although PSNH envisioned its account executives contacting customers to let them know about the PAYS® tariff, by 2004, half of the participants were notified of PAYS® through contractors seeking to increase sales of their services.

NHEC's program demonstrated that customers preferred to buy compact fluorescent light bulbs (CFLs) using the PAYS® tariff and pay the full cost over time rather than buy highly subsidized CFLs in point-of-sale programs. PAYS® was also used to facilitate the weatherization of gas-heated homes at NHEC and to improve lighting and HVAC in commercial buildings.

NHEC funded the upfront cost for measures by borrowing from its primary lender or from operations and using a small portion of its system benefit funding as a guarantee fund. However, NHEC forced customers to choose between available rebates of 50% - 80% of measure costs or paying the full cost of measures through PAYS®. This program design flaw limited customer interest in PAYS®.

Kansas: The Kansas Corporations Commission (KCC) in its December 20, 2007 Order in Docket No. 07-MDWG-784-TAR approved the application of Midwest Energy, a natural gas and electric cooperative utility, to use a tariff with almost all of the essential PAYS® elements to promote the installation of resource efficiency measures, primarily in residential housing (How$mart® program). Because the program required owners of rental housing to assume the risk of measure failure while all savings benefits accrued to tenants (i.e., landlords might pay and save nothing) Midwest Energy is not licensed to use the trademark "PAYS®."

Through 2012, there has been continued strong demand for Midwest Energy's How$mart® program. (http://www.mwenergy.com/howsmart.html). In fact, on September 5, 2008, in its order in Docket No. 08-MD-1128-TAR, the KCC approved Midwest Energy's request to make How$mart® a permanent program available to all customers.

As of December 31, 2012, How$mart® projects have been completed at 858 locations. Midwest Energy has invested almost $5.0 million in efficiency improvements (including program fees of almost $207,000). These funds will be repaid by participating customers through the How$mart® tariff. The projects at 858 locations were implemented by 716 homeowners, 114 residential rental properties, and 28 commercial businesses. In order to qualify installation of additional measures that would not qualify for the tariff, customers paid an additional $1.4 million, making participants' average project size $7,489. Homeowners completed 17 How$mart® geothermal loop projects. Although Midwest offers no rebates or other incentives besides the tariff, to date, fewer than 45% of customers making decisions on projects, declined to implement retrofits . Midwest is awaiting customer decisions or contractor bids on an additional 200 projects. Measures include new heating systems, geothermal loop projects, air sealing and insulation. In addition, a version of How$mart® for commercial and industrial lighting applications has resulted in 9 lighting retrofits. Portable measures (e.g., refrigerators and CFLs) are not included in How$mart®. Midwest Energy utilizes its own capital for investment in How$mart® projects. However, as opportunities to access low-cost capital avail, Midwest utilizes the low-cost funding and passes the lower debt costs through to customers. Midwest has utilized low cost funding from the Kansas Housing Resources Corporation, stimulus funds through the Efficiency Kansas program, and most recently a Rural Economic Development Loan (REDL) from the U.S. Department of Agriculture to lower embedded debt costs associated with How$mart® projects.

In 2009, the KCC purchased the rights to use all of the forms and contracts developed by EEI with the intention of making them available at no cost to Kansas utilities interested in operating programs based on the PAYS® system.

Hawaii: Implementing PAYS® legislation signed by the governor the previous year, the Hawaii Public Utilities Commission (HPUC) in its June 29, 2007 Order No. 23531 approved three PAYS® pilots proposed by the Hawaiian Electric Company, Hawaiian Electric Light Company, and Maui Electric Company for the installation of solar hot water heating systems. These utilities decided to offer tariffs that included all key PAYS® elements while the HPUC did not require them to do so.

None of the utilities advertised this pilot on their websites. However, during the Program Year 1 of their pilots (2007-2008), according to independent evaluation by the Johnson Consulting Group, the utilities' SolarSaver Programs received a total of 203 applications (the pilot's target was 200). A total of 185 applications were approved with the remainder having been either declined or canceled by the customer after the initial screening was complete (more than a 90% offer acceptance rate). Two of the utilities (Hawaiian Electric Company and Hawaii Electric Light Company exceeded their target for approved installations; the other (Maui Electric Company) had staffing issues and was able to approve only 16 of the 50 targeted solar installations.

Forty-three of the 203 applications for the SolarSaver program (21%) were by customers who had previously refused installations, suggesting that PAYS® is transforming the market.

In Program Year 2 (2008-2009), as contractors learned how customers who rejected other offers would accept PAYS® offers, demand for the SolarSaver program surged. The number of customers who participated in the SolarSaver program who had previously refused a non-PAYS® offer increased to 74% of those participating in Program Year Two. Despite no marketing of the SolarSaver Programs, a total of 328 applications were approved and 299 were processed after 29 were cancelled (still more than a 90% offer acceptance rate). To meet the increased demand, HECO and HELCO applied for and received HPUC permission to tap into Program Year 3 funding. This accelerated the spending of Program year 3 funds and the program exhausted these two utilities' three-year budgets for the installation of SolarSaver SWH systems by August 2009.

On February 1, 2013, Hawaii's Public Utilities Commission in Order No. 30974 closing Docket 2011-0186 made Hawaii the first state in the nation to authorize a state-wide tariffed on-bill financing program. The order reads: "The commission concludes that any on-bill financing program should be structured as a service and tariff-based 2011-0186 30 program, rather than a loan-based program (pp. 30 – 31).

Kentucky: How$martKY™ is a pilot program based on the How$mart® program at Midwest Energy (KS). Kentucky's Public Service Commission in Case. No. 2010-00089 approved the pilot in December 2010 to run for two years providing assistance to 200 to 300 utility customers starting in Spring 2011.

Four rural utility cooperatives in Eastern Kentucky (Big Sandy RECC, Fleming-Mason RECC, Grayson RECC, and Jackson Energy) are implementing the pilot to be managed by the Mountain Association for Community Economic Development (MACED) to provide energy retrofits (insulation, duct sealing, air sealing, and heat pump upgrades) as part of utility service under the KY Energy Retrofit Rider.

After completing a free energy assessment of the property and estimating the potential savings, a program Energy Specialist oversees the contractor installation of the energy efficiency upgrades and provides assurance that the improvements have been correctly installed.

As of December 2012, 166 assessments had been done and 90 customers had implemented retrofits totaling $687,517 ($484,011 was financed through the How$martKY™ tariff). Almost 30% ($203,506) of the total invested in retrofits was paid upfront with rebates or by participants in order to qualify for the tariff. Fifty-nine participants who had assessments done did not proceed with the program (there is currently no way to determine if these potential participants refused to participate or were in fact not eligible because of structural problems with their homes, bad billing history, or not enough energy usage to enable energy saving measures to "pencil out"), creating an offer acceptance rate of 64%. Three of the four utilities implementing the pilot have decided to move forward with a permanent tariff program.

California: The Sonoma Regional Climate Protection Authority (RCPA) is working with a Sonoma County municipality, the Town of Windsor, to design and implement a tariffed on-water bill pilot program based on the PAYS® system. The design of this pilot is being funded with federal funds, however, private capital will fund operations and all installation costs. This pilot will be the first demonstration using the PAYS® system at a municipal water utility. It targets both energy- and water-saving measures. The first-year goal of the pilot is for 2,000 residential customers (approximately 25% of this utilities' residential customers), both homeowners and renters, to purchase an array of resource efficiency measures that meet customers' end use needs (e.g., showering, clothes washing, refrigeration, lighting, attractive landscaping) while using less water and/or energy. In one year, the goal for this pilot is to serve approximately 4 times the number of customers that the town's programs have reached during the past 5 years.

Reaching this percentage of a utility's customers in one year with a program that charges participants for resource-saving measures would be unprecedented in California. The pilot began implementation in October of 2012. It appears likely that the pilot will exceed its goal of having 10% of the 2,000 homes be multi-family units within the first six months of operation. The pilot also uses a unique self-funding mechanism that eliminates the water utility's revenue erosion. However, implementation delays and decisions made by the Lead Contractor required adding a second Lead Contractor in January 2013 in order to meet the pilot program's ambitious goals. The annual Windsor budgeting and revenue process may require the pilot to cease operations after only 9 months of operation. Evaluation by California's Better Buildings Program is currently underway.