

Status Report for Programs Based on the Pay As You Save[®] (PAYS[®]) system

January 1, 2012

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 2011, 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 August 1, 2011, How\$mart projects have been completed at 606 locations. Midwest Energy has invested more than \$3,409,950 in efficiency improvements (including program fees of \$148,286). These funds will be repaid by participating customers through the How\$mart tariff. The projects at 606 locations were implemented by 518 homeowners, 72 residential rental properties, and 16 commercial businesses. In order to qualify installation of additional measures that would not qualify for the tariff, customers paid an additional \$922,042, making participants' average project size \$7,148.50. Homeowners completed 15 How\$mart geothermal loop projects. Although Midwest offers no rebates or other incentives besides the tariff, to date, only 547 customers, less than half of all customers making decisions on projects, declined to implement retrofits. Midwest is awaiting customer decisions or contractor bids on an additional 187 projects. Measures include new heating systems, geothermal loop projects, air sealing and insulation. Portable measures (e.g., refrigerators and CFLs) are not included in How\$mart. Demand for participation continues to exceed available funding. The Kansas Corporations Commission denied Midwest Energy's request to increase the capital available to install measures and Efficiency Kansas (EK) funding from Department of Energy stimulus funding is winding down.

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 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 only was able to approve 16 of the 50 targeted solar installations).

Forty-three of the 203 applications for the SolarSaver program 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 zoomed to 74% of those participating in Program Year Two. Again, in spite of 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.

Kentucky: How\$martKY™ is a pilot program based on the How\$mart® program from Midwest Energy (KS). Kentucky's Public Service Commission in Case No. 2010-00089 approved the pilot in December 2010. The pilot will run for two years and will provide 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 will oversee the contractor installing the energy efficiency upgrades and provide assurance that the improvements have been correctly installed.

As of January 1, 2012, 82 assessments have been sent to potential participants, 29 projects have been completed, and 12 participants have dropped out (there is currently no way to determine if these potential participants refused to participate dropped out because no measures qualified),

resulting in a minimum offer acceptance rate of 35% and a potential offer acceptance rate of 85%. Most projects have required some level of upfront investment by the customer to qualify for the tariff. The electricity rate is too low to pay all project costs completely from savings most of the time. At this time, How\$martKY™ prescreens interested homeowners for usage that suggests there will be sufficient savings to justify installing measures.

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 of using the PAYS® system at a municipal water utility to target both energy and water-saving measures. The first year goal of the pilot is for 2,000 residential customers, both homeowners and renters – approximately 25% of this utilities' residential customers – 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.

Certified Contractors will be able to include any measure certain to yield immediate positive cash flow for participants. 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 expected to start in March 2012. 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. Additionally, the specified equipment uses a third less water than previously approved technologies. Assuming their current rebate programs could achieve the same number of measures installed in one year as is expected from this pilot, this utility's rebate programs would require \$230,000 more than the cost of this pilot for each year of program operation. RFPs have been issued for all program roles.