PAYS® and Participant Savings

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What happens to the PAYS® charge if a participant does not realize savings through no fault of their own?

The simple answer to this question is that the PAYS system assures program participants that the estimated annual savings from their upgrades significantly exceed the utility's cost recovery charges. PAYS does not guarantee savings.

However, if a participant or a utility performing measurement and verification were to notify the program operator that the PAYS charges exceeded the participant's bill savings, the operator will investigate the cause. If the program operator finds that the installed upgrades failed and cannot be repaired or replaced, the PAYS charges at that location would end unless the operator finds that the participant or building owner removed, destroyed, or failed to maintain the upgrades.

Program operators have reported few complaints about failed upgrades or disappointing savings among the 5,000 PAYS projects completed to date in the U.S., and by all reports, these complaints have been resolved to the customers' satisfaction.

While there is no savings guarantee, the PAYS system incorporates a number of design elements that ensure most if not all participants receive net savings:

1. **PAYS upgrades use only proven technologies that necessarily produce bill savings.** Reducing air and duct leakage or adding insulation in a home requires less energy for the same level of heating and cooling. Reducing the wattage of regularly used lighting without reducing the lumen output requires less energy. Replacing an inefficient heating and cooling appliance with upgraded equipment (especially a heat pump with a higher coefficient of performance and seasonal energy efficiency rating) results in less energy use for the same heating and cooling comfort. Upgrades like these produce reliable savings for participants.

2. **PAYS requires proven site-specific engineering analyses verified with billing histories.** PAYS savings estimates are based on solid on-site analyses in order to achieve better accuracy for site-specific investments. PAYS programs use assessment tools like blower doors with duct blasters and/or pressure pans both before and after installations, and pre- and post-upgrade combustion-efficiency testing for oil and gas combustion appliances.

3. **The 80 Percent Rule provides a significant margin of error for savings estimates.** PAYS programs use an 80 Percent Rule, which states that the participant's monthly charges must be set so that annually they do not exceed 80 percent of the estimated annual utility (water, sewer, natural gas, oil, and/or electricity) cost savings obtained from installation of upgrades based on a cost recovery period of no more than 80 percent of the useful life of the upgrades.

4. **PAYS programs build in quality assurance protocols.** Whether following up on a participant complaint or doing routine post-installation measurements, PAYS program managers are obligated to look for whether the participant's savings were less than 80 percent of what was estimated, and if so, determining the cause and taking appropriate action. If the cause was upgrade failure that cannot be corrected and if there is no evidence that the owner or occupant removed, destroyed, or failed to maintain the upgrades, then the PAYS charge is ended. If a utility finds repeatedly that participants' annual savings are below 80 percent of the estimates, activity for that program should be stopped until implementation flaws are corrected.

Will reserve funds help a PAYS® program?

Reserve funds are not recommended for PAYS programs. Reserve funds have been discussed for two main reasons: 1) to help customers who do not realize sufficient savings to cover their charges and 2) to help utilities who experience PAYS-related uncollectables.

Participant savings

Experienced program operators know that upgrades using proven technologies will perform well when correctly assessed, installed, maintained, and not damaged or removed. The margin for error provided by the 80 Percent Rule seems excessive to them. PAYS builds in protocols for addressing situations where upgrades fail and there is no evidence that the owner or occupant removed, destroyed, or failed to maintain the upgrades. If upgrades can be repaired or replaced, the term of the PAYS charges may be extended to recover the cost of the repair or replacement.

Utility uncollectables

In the course of twenty years of field experience with programs based on the PAYS system at 18 utilities in 8 states, PAYS uncollectables have averaged less than one-tenth of a percent of total PAYS investment. This rate is less than the typical rate for utilities' uncollectables. PAYS uncollectables are rare in part because savings realized by the upgrades are making it easier for participants to pay their utility bills. The rate of PAYS uncollectables does not include utilities waiving charges for customer service reasons.

In the past two decades, there have been three reserve funds established for programs based on the PAYS system, and only one has been used. That use accounts for less than one hundredth of one percent of all billable PAYS charges. In 2019, EverSource dissolved its reserve fund for the SmartStart program in New Hampshire because it had never been used in 18 years and they needed the money to make other resource efficiency investments. This field experience suggests that there is no need for reserve funds to address perceived risks to utilities and participants.

However, should a utility want to go ahead with setting up a reserve fund, the fund should be used annually only after PAYS uncollectables as a percentage of billed PAYS charges reach the utility's average uncollectables rate for its overall billing.