



DATE: July 10, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT Update on PAYS Implementation

RECOMMENDATION

That the Committee receives this update and recommends that Council adopts additional flexibility related to the length of the PAYS Program repayment term.

BACKGROUND AND DISCUSSION

On June 23, 2015, Council [passed a resolution](#) authorizing the Green Hayward PAYS® (Pay-As-You-Save) On-Bill Conservation and Efficiency Financing Pilot Program. Because PAYS failed to secure private financing, Council allocated \$1,000,000 from the Water Improvement Capital Fund to cover the upfront costs associated with installing conservation and efficiency measures at multifamily properties. This money will be paid back over ten years through a surcharge on each participating customer's water bill.

This Committee received updates on PAYS implementation at its [May 9, 2016](#) meeting and its [December 10, 2015](#) meeting. For more details about the PAYS Program, including frequently asked questions, please visit www.Hayward-ca.gov/PAYS.

Program Design

Following a competitive process, the City selected a preferred contractor, Bottom Line Utilities Solutions (BLUS), and suppliers to perform the installations and supply water conservation products on behalf of the City. In addition, the City selected a Certification Agent, BKi, to provide program administration and quality assurance. BLUS and BKi conduct outreach to Hayward multifamily property owners and managers with assistance from the City. Once a customer expresses interest, BLUS does an assessment of the property and estimates water, sewer, and energy savings. BKi checks BLUS's estimates and calculates the cost of the surcharge that will appear on the customer's bill, which must be less than 80% of the customer's estimated bill savings.

Customers can either select BLUS to complete the upgrades or select their own contractor, with the stipulation that their contractor cannot cost more than BLUS. Customers then repay program costs over ten years through a surcharge on their bi-monthly water bills. The goal is

that the customer will realize an immediate net reduction in their bills. If a property were to change hands, the surcharge would stay with the property.

Program Participation

As of June 2017, two years past PAYS authorization, only four properties have completed upgrades, totaling 138 units and using \$130,452 of the \$1,000,0000 dedicated to the program. In addition, eight properties are actively considering proposals they have received from PAYS to perform updates, totaling 515 units and using \$221,222. These properties are summarized in the table below and their locations are shown on the map in Attachment I.

Completed Projects and Active PAYS Proposals

	# of Units	Cost of PAYS Upgrades	Surcharge/Bill	Projected Net Savings/Bill
Completed Projects				
1	34	\$9,100	\$211	\$329
2	24	\$12,261	\$285	\$230
3	12	\$6,483	\$151	\$434
4	68	\$102,608	\$2,382	\$17,440
Subtotal	138	\$130,452	\$3,029	\$18,309
Active Proposals				
5	102	\$53,311	\$1,238	\$5,044
6	33	\$14,694	\$341	\$773
7	45	\$20,001	\$464	\$1,069
8	30	\$8,898	\$207	\$201
9	8	\$3,174	\$74	\$76
10	41	\$20,422	\$474	\$819
11	68	\$31,370	\$728	\$2,449
12	188	\$69,352	\$1,610	\$7,317
Subtotal	515	\$221,222	\$5,136	\$17,748
TOTAL	653	\$351,675	\$8,165	\$36,057

In addition to the properties above, two multifamily properties totaling twenty-three units completed upgrades on their own due in part to the marketing efforts of the PAYS Program. These properties received assessments from the PAYS contractor and decided to complete the upgrades, but declined to use the on-bill financing.

Bill Analysis for Completed Projects

Staff conducted a bill analysis for the first completed project, which is summarized in the table below. Staff does not have sufficient billing data yet to assess the performance of property four's upgrades. Properties one and two have twelve months of billing data. Property three has seven months of billing data. Bills savings are calculated using an estimate of what the

customer would have paid had they not completed the upgrades. This estimate is based on two years of historic billing data for the property.

For properties one and two, staff only looked at water bills because the owner was new and thus did not have access to two-years of historic PG&E bills. For property three, staff looked at water and energy bills.

As an example, property two installed twenty-four new toilets, thirteen showerheads, thirty-one aerators, and sixty-three in-unit LEDs in twenty-four units. In addition, they replaced sixty-three common area lighting fixtures and added a hot water demand controller and pipe insulation. The cost of the PAYS upgrades was \$12,261. This amount will be paid back with interest over ten years through a bi-monthly surcharge of \$285. The projected net water savings (after subtracting the surcharge) for this property was \$230 per bill. The actual average net water savings has been \$487 per bill (\$257 greater than projected). Actual savings are calculated by comparing consumption during a billing period to two years of historic water consumption during that same billing period. As stated above, staff was unable to calculate actual energy savings for this property because we did not have access to historic PG&E bills.

	Cost of PAYS Upgrades	Surcharge /Bill	Projected Net Savings/Bill	Average Actual Net Savings/Bill	Surcharge as % of Bill Savings*
Completed Projects					
1	\$9,100	\$211	\$329	\$845	20%
2	\$12,261	\$285	\$230	\$487	37%
3	\$6,483	\$151	\$434	\$177	46%
TOTAL	\$27,844	\$647	\$993	\$1,509	

*Surcharge as % of Bill Savings is calculated by dividing the surcharge by the average actual full savings (net savings + surcharge)

Measures Installed	Property 1	Property 2	Property 3
Toilets	33	24	10
Showerheads	19	13	9
Bathroom Aerators	24	12	9
Kitchen Aerators	21	19	9
Hot Water Demand Controller	0	1	1
Hot Water Pipe Insulation	0	1	1
Common Area Lighting	22	63	40
In-Unit LEDs	48	63	36

Staff's conclusions from the above data:

1. All three of the properties are saving money and were well below the "80%" threshold. In other words, only 20%, 37%, and 46% of the savings realized by these customers went to pay their surcharges. The remaining savings went back to these customers.
2. The average net bill savings (after subtracting the surcharge) realized by these customers ranged from \$177 to \$845. In contrast, the average bill savings for the two properties who completed the toilet upgrades on their own were \$136 and \$279.
3. The first two properties have achieved actual bill savings higher than their projected bill savings. The projected savings were calculated with very conservative estimates of existing measures with uniform characteristics.
4. The third property achieved lower actual savings than what BLUS had projected. This customer achieved reductions in their water usage, but the energy upgrades did not deliver expected savings based on misreported existing conditions. BKi and BLUS have updated their protocols to minimize this error for future properties.

In summary, the program has had substantially less participation than projected. PAYS projection was that thirty-seven properties with 2,000 units would be completed in the first year. However, the limited number that have been completed are performing well thus far. Staff will continue to monitor billing data to ensure that the projections are realistic and savings are being realized.

Staff Recommendation: Flexible Repayment Term

The PAYS® Program launched in October 2015. While initial interest has been strong (thirty-seven site visits completed), projects have been completed substantially below the pace originally expected. Staff has identified a few barriers that may account for this slower rollout. Many of the larger property management companies have several layers of administration. This has delayed the signing of agreements and the onsite installations. In addition, some larger properties, including some owned by Eden Housing, have already updated their toilets. Finally, small to medium sized properties, which are more likely to need the financing, have expressed concern about the amount of interest they would be paying over ten years of financing. The current program design requires a payback period of ten years.

To address that last barrier, staff is recommending the following updates to the PAYS program:

1. Allow flexible repayment terms from five to ten years, up to the point that the surcharge will be no more than 100% of savings for property owners (rather than 80%). Shorter repayment terms result in higher bi-monthly surcharges, but the property owner will end up saving more over the life of the repayment due to less interest. (see example below)
2. Allow for prepayment without penalty.

Below is an example of a real property in Hayward with ten units. The City's PAYS contractor gave this property owner a quote to do \$12,712 worth of upgrades on her property. She declined to participate in the program because she felt the ten-year payment term would result in her paying too much interest. If her payment term was shortened to five years, she would have saved \$2,586 in interest, per the table below. If she had been able to prepay without penalty, she could have further reduced the interest amount.

Number of Payments	Surcharge/Bill	Total Surcharge over 10 years	Total interest over 10 years	Estimated Savings/Bill	Surcharge as % of Savings
Cost of Surcharge with 60 bi-monthly payments (10 years)					
60	\$295	\$17,708	\$4,996	\$534	55%
Cost of Surcharge with 30 bi-monthly payments (5 years)					
30	\$504	\$15,122	\$2,661	\$504	100%
Difference	\$209	-\$2,586			

ECONOMIC IMPACT

The Green Hayward PAYS® Program allows residents and property owners to improve energy and water efficiency in their homes with no up-front costs and no projected increases in their overall utility bills. Flexible repayment terms would decrease the total amount owed by customers, which would save them money in the long term. In the short term, the customer's bi-monthly bills would be higher due to a higher surcharge amount.

FISCAL IMPACT

The funding for the program is \$1,000,000 from the Water Improvement Capital Fund, which will be paid back over time with interest through a surcharge on each participating customer's water bill. The City is currently receiving money back through the surcharges on the four completed projects. If customers select reduced repayment terms, the City would receive less interest over the life of the repayment. However, the Water Fund would receive its money back sooner.

SUSTAINABILITY FEATURES

Water: Access to on-bill financing through the PAYS program enables water upgrades, which reduce Hayward's per capita water consumption. The hope is that there will be greater participation in the PAYS program if flexible repayment terms are introduced.

Energy: Access to on-bill financing through the PAYS program enables energy efficiency upgrades, which reduce the community's reliance on fossil fuels.

NEXT STEPS

If the Committee recommends that Council approve staff's recommendations as outlined above, then staff will return with a report to the full Council.

Prepared by: Mary Thomas, Management Analyst

Recommended by: Alex Ameri, Director of Utilities & Environmental Services

Approved by:

A handwritten signature in black ink, appearing to read 'K. McAadoo', is positioned above a horizontal line.

Kelly McAadoo, City Manager