



DATE: November 14, 2016

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT

California Youth Energy Services – 2016 Results

RECOMMENDATION

This is an informational report.

SUMMARY

California Youth Energy Services (CYES) is a program that trains and employs youths and young adults to provide energy and water conservation assessments and installations for local residents in their community, at no cost to the customer. The City of Hayward hosted CYES this past summer and this report provides an overview of the program structure and highlights the energy and water savings achieved as a result of the program.

BACKGROUND

Rising Sun Energy Center (Rising Sun) is a Bay Area nonprofit workforce development organization established in 1994. Through a partnership with the East Bay Energy Watch (EBEW) and the Pacific Gas & Electric Company (PG&E), Rising Sun operates the CYES program, which trains and employs young adults to provide energy and water conservation assessments and installations to local residents at no cost to the customer. This service, called a Green House Call, is offered to both homeowners and renters, and checks homes for efficiency, installs equipment, and provides personalized recommendations for further savings. The City of Hayward has hosted CYES in 2010, 2011, 2013, 2014, 2015, and most recently in the summer of 2016.

Rising Sun operates the CYES program by setting up local offices in partner cities. The program commences with Rising Sun, along with the partner city, conducting a community marketing and outreach campaign in the spring to generate an interest list of residents that can be served by the summer program. Rising Sun also conducts a youth and manager recruitment campaign in the spring to hire local Youth Energy Specialists (between fifteen and twenty-two year olds) from the

partner cities. Once staffed, the CYES program implementation begins with training, including a week-long youth training in late spring. Youth Energy Specialists then conduct Green House Calls for six weeks following training. These Green House Calls provide residents in single-family and multi-unit dwellings with free energy and water conservation assessments, equipment installation, and education.

A CYES Green House Call typically consists of:

- A walkthrough energy and water assessment of the home with the client
- Direct installation of free energy and water saving measures, including:
 - Efficient-flow faucet bath and kitchen aerators & showerheads
 - Screw-in compact fluorescent lamps (CFLs)
 - Retractable clotheslines in qualifying homes, or a power strip
 - Fluorescent floor lamps, in exchange for halogen floor lamps
- Checking for adequate attic insulation, pipe insulation, and a water heater blanket
- Testing gallon per minute (GPM) flow rates on shower, kitchen, and bathroom water fixtures
- Assessment of toilets for leaks and flush volume
- Assessment of refrigerator and water heater temperature settings
- Energy and water conservation education, including personalized recommendations and information about the City's water conservation rebate programs.
- Customized report to the client documenting work completed and ways to further capture energy savings after the CYES appointment

DISCUSSION

2016 Program

Attachment II provides a summary of the accomplishments of the CYES program in 2016. The 2016 CYES program in Hayward provided employment and training to nine young Hayward residents. CYES targets "hard-to-reach" populations and in 2016, they served 278 households, of which 35% were renters, 71% were low-moderate income households, and 79% of the households spoke a language other than English at home.

Youth Energy Specialists installed the following equipment in Hayward homes in 2016:

- 2,037 CFL light bulbs
- 652 LED light bulbs
- 276 LED night lights
- 27 CFL floor lamps
- 216 efficient-flow showerheads and aerators (provided by the City at no cost)
- 196 power strips (to reduce phantom power usage)

Annual water savings is estimated to be 1.7 million gallons. Installation of energy-saving devices is estimated to result in an annual reduction of 42,291 kilowatt hours of energy and 320 therms

of natural gas, thereby preventing 31.2 metric tons of carbon dioxide from entering the atmosphere each year. Youth Energy Specialists also conducted three solar assessments for single family dwellings. Over 400 pounds of electronic waste were collection from local homes and recycle responsibly. Furthermore, the City of Hayward Guide to Recycling Services was handed out at each Green House Call to promote proper sorting of waste and inform residents of available services provided by the City and Waste Management.

2017 Program

In October, Rising Sun solicited feedback from cities on interest in participation in 2017 and three possible program models. Program Model 1, similar to how CYES has operated in Hayward in previous summers, ensures that the City would have an exclusive office and guaranteed deliverables of 200 homes served and eight local youth hired, for a City contribution of \$20,000. Program Model 2 would serve two neighboring cities interested in sharing a site office, and would split the local homes served (200 total), local youth hired (eight total), and \$20,000 contribution between the neighboring cities in an agreed upon proportion. Program Model 3 is intended for cities that are unable to make the financial contribution, and would serve two to four neighboring cities from one site office with a proportion of local homes served and local youth hired that is not guaranteed.

Staff is interested in applying for Program Model 1, as it guarantees the highest number of houses served and local youth hired. Rising Sun will be releasing the City Solicitation Application for Summer 2017 in November 2016.

ECONOMIC IMPACT

CYES provides services to all community members, regardless of income, but the program is designed to serve “hard-to-reach” residents, including renters, low-moderate income households, and non-English speaking households. Youth Energy Specialists are also hired locally, providing professional training and employment opportunities to young adults in the community. While the energy and water savings tend to be the focus of the program highlights and accomplishments, the workforce development aspect is also an integral component of the program’s success and the value it provides to the local community. Youth Energy Specialists also provide clients with a customized report with recommendations for further energy and water savings, which include behavioral changes that can also lower their monthly utility costs.

FISCAL IMPACT

CYES is part of the program offerings of the East Bay Energy Watch, which is a local government partnership with PG&E and cities in Alameda and Contra Costa Counties. PG&E provides partial funding for the CYES program and Rising Sun also utilizes other grant funding to cover some of the program costs as well. Rising Sun has reported that the average total cost of running of a CYES satellite office is approximately \$120,000 per year. This cost includes youth salaries, manager salaries, site set-up and breakdown, outreach and marketing, equipment and materials, transportation, planning, coordination, and all overhead costs. In 2016 and in previous years, the cost to the partner cities is \$20,000, which the City paid from the Water Enterprise Fund. In

addition to hard costs, there is also an in-kind contribution request of office space (which has been provided by the Hayward Unified School District for the past four years), water conservation devices (i.e. aerators, showerheads), and staff assistance with marketing and outreach. Depending on the Program Model that the City elects to participate in for summer 2017, the in-kind contribution would range from \$20,000 to no contribution with proportional services provided in Hayward.

SUSTAINABILITY FEATURES

Energy – A primary goal of the CYES program is to assist Hayward residents with lowering energy use in their homes. The results from 2016 are described in the Discussion section and Attachment II.

Water – A primary goal of the CYES program is to install water-saving devices and measures to help residents lower their water use at home. The results from 2016 are described in the Discussion section and Attachment II.

Waste – Youth Energy Specialists collected and responsibly recycle over 400 pounds of electronic waste during the summer 2016 program.

NEXT STEPS

Staff will prepare a proposal to host CYES again in 2017 once the application is received. Staff will then begin working with Rising Sun on a contract in the beginning of the calendar year. Upon completion of the program, staff will report back to the Committee with the results and accomplishments.

Prepared by: Jennifer Yee, Sustainability Technician

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

Approved by:



Kelly McAdoo, City Manager