



Agenda Date: 9/27/2017

Agenda Placement: 8C

Napa Sanitation District Board Agenda Letter

TO: Honorable Board of Directors

FROM: Timothy Healy - General Manager
NS-Technical Services/Engineer

REPORT BY: Jill Hughes, Associate Engineer - 707-258-6013

SUBJECT: Receive Presentation from Staff on the LED Pole-Arm Mounted Fixtures Project (CIP 17718)

RECOMMENDATION

Receive presentation from staff on the LED Pole-Arm Mounted Fixtures Project (CIP 17718).

EXECUTIVE SUMMARY

The purpose of this project was to reduce energy use of plant lighting as recommended by a PG&E energy audit from 2015. PG&E worked with staff to identify 220 existing external energy consuming lighting fixtures that could benefit from replacement with modern LED technology. In order to maximize energy savings and achieve a desirable payback NapaSan purchased LED light fixtures that had dimming capabilities to replace the existing light fixtures. The dimming feature allows the LED lights to consume less power when plant staff are not onsite. Motion sensors trigger lighting to 100% when staff are present. Of the 220 external lights, 112 light fixtures were selected for replacement based on the following factors: greatest cost savings, age, pole reuse, accessibility for maintenance, and wattage (energy use). The remainder of the lights will be replaced on an as needed basis.

The wattage reduction for each light fixture replaced with LED (no dimming) was between 115W and 156W.

The annual energy savings has been calculated as \$11,000, which has an expected payback of 6.8 years. The materials were provided by NapaSan for \$64,700 through an existing co-op with a vendor and installed by a separate labor contractor for \$13,000 for a total of \$77,700 for outside labor and materials. This project received a \$6,900 rebate from PG&E.

Future projects to replace the remaining lights with LEDs will be considered based on potential energy savings, incentives, and calculated payback.

FISCAL IMPACT

Is there a Fiscal Impact? No

ENVIRONMENTAL IMPACT

None.

BACKGROUND AND DISCUSSION

In 2015 PG&E sponsored an Energy Audit Report for the District. The report identified and prioritized potential energy and demand savings opportunities (energy conservation, energy efficiency, time-of-use management, self-generation). The report also estimated costs to implement energy savings projects, resulting annual energy savings, and potential incentives from PG&E for implementing the projects. This project is one of the high priority energy efficiency projects listed in the report.

SUPPORTING DOCUMENTS

A . Presentation Slides

Napa Sanitation District: Approve

Reviewed By: Timothy Healy