

Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: John Ristow
Margaret McCahan

**SUBJECT: PG&E ON-BILL FINANCING
PROGRAM LOAN FOR LED
STREETLIGHT CONVERSION**

DATE: August 27, 2018

Approved

Date

8/28/18

RECOMMENDATION

- a) Approve an On-Bill Financing (OBF) Program Loan Agreement with PG&E in the amount of \$441,000, to support the conversion of additional non-LED streetlights to LED streetlights.
- b) Adopt a resolution to authorize the City Manager or designee to negotiate and execute an OBF Program Loan Modification Agreement with PG&E upon verification of final project costs and energy savings, if necessary.
- c) Adopt the following 2018-2019 Funding Source Resolution and Appropriation Ordinance amendments in the General Fund:
 - 1) Increase Other Revenue in the amount of \$441,000; and
 - 2) Increase the Non-Personal/Equipment – Department of Transportation appropriation in the amount of \$441,000.

OUTCOME

Approval of the agreement will enable the City to receive an energy-efficiency-based OBF Program loan from PG&E for approximately \$441,000 following the conversion of approximately 1,200 non-LED streetlights to LED streetlights in Downtown and along several major street corridors. Funds from the loan will then be used to purchase approximately 2,100 LED light fixtures for installation throughout the City as the existing streetlights burn-out or malfunction.

BACKGROUND

There are approximately 64,400 city-owned and maintained streetlights in San José. Approximately 26,200 have been converted to LED streetlights since 2011 and another 1,200 are scheduled to be converted in late 2018. This leaves approximately 37,000 non-LED streetlights that will need to be converted to LED.

On June 7, 2018, staff provided an update on LED streetlights conversion to the Smart Cities and Service Improvements Committee. The update outlined several options for LED conversion ranging in cost from \$16.5 million to \$30.2 million, depending on the speed of conversion and degree of technology implemented for streetlight control and other “smart city” functionality. The lowest cost option would convert non-LED streetlights to LED with basic on/off lighting controls (without “smart” controllers) utilizing existing in-house crews and a reactive conversion approach (as the lamps burn out or the fixtures malfunction) over a seven-year period. The highest cost option would convert the non-LED streetlights to “smart” LED streetlights and upgrade the existing LED streetlights with new “smart” controllers utilizing a combination of existing in-house and contractual crews and a proactive zone-based conversion approach over a four-year period.

Currently, there is no identified source of funding to implement any option for full conversion, although several solutions are in various stages of development, such as the Disaster Preparedness, Public Safety, and Infrastructure Bond measure being placed on the November 2018 election ballot.

Additionally, the City recently received notification from the only remaining manufacturer of replacement lamps and fixtures for the City’s Low Pressure Sodium (LPS) streetlights that new orders for these products will not be accepted after July 2019, and the production of these products will cease in 2020. The City currently has approximately 29,600 LPS streetlights, of which about 5,400 burn-out or malfunction each year. Unless these streetlights are replaced with new LED fixtures, provisions will be needed to obtain and store LPS replacement parts before the end of 2020 to repair LPS streetlights that fail after that point. DOT is recommending that the OBF Program be utilized as a funding source to purchase new LED fixtures that would be used to replace LPS streetlights as they fail.

ANALYSIS

PG&E’s OBF Program

PG&E’s OBF Program is funded by California utility customers and administered by PG&E under the direction of the California Public Utilities Commission (CPUC), with the loan agreements and rules approved by the CPUC. The OBF Program loan is a no-interest, no-fee, simple payback loan that provides qualified PG&E customers with a means to finance energy-efficient retrofit projects. The monthly loan repayment is equivalent to the estimated energy cost savings. Table 1 below summarizes the OBF program available to qualifying PG&E customers.

With PG&E's adoption of LED fixtures as a standard technology, they are now promoting the OBF for LED streetlight conversion projects. This opportunity, in combination with recent decreases in the cost of LED streetlight fixtures, enables the City to take advantage of the OBF Program.

Table 1 – Summary of the OBF Program

Interest Rate	0%
Fees	None
Loan Amount	• Qualified project costs less any incentive payments (rebates) • Maximum \$4M per government agency customer
Loan Term	• Calculated by dividing the loan amount by estimated monthly energy cost savings from qualifying project • Maximum 120 months (10 years) for government agency customer
Loan & Project Coordination	• Project installation must follow the execution of loan agreement • Loan amount and term subject to final cost verification • A Loan Modification Agreement would be needed to reconcile any differences between the Loan Agreement and final project cost or scope
Dispersal of Funds	Funds will be dispersed after completion of project and the execution of Loan Modification Agreement, if necessary
Repayment	A fixed monthly loan installment will appear as a line-item on the customer's monthly PG&E bill (On-Bill) until the loan is paid off

Additional information about the OBF Program can be found on PG&E's website at https://www.pge.com/tariffs/tm2/pdf/ELEC_SCHS_E-OBF.pdf

Use of the OBF Program to Convert LED Streetlights

DOT has funded and is planning to convert approximately 1,200 streetlights in late 2018. Over 1,000 of these streetlights are in the greater downtown area, and the rest are located on newly identified Vision Zero Priority Safety Corridors, which includes segments of Santa Clara Street, First Street, Hillsdale Avenue, and Fruitdale Avenue. The conversion of the Downtown streetlights is being funded through the Greater Downtown Area Multimodal/Streetscape Improvements appropriation in the General Purpose Parking Capital Fund and streetlight conversions along the Vision Zero corridors are being funded in the Traffic Capital Improvement Program. Total cost for this work is estimated at \$690,000.

As determined by PG&E under the terms and conditions of the OBF Program, the City qualifies for a loan of \$441,000 once the planned conversion project is completed. Expenses related to the purchase and physical installation of the LED fixtures are eligible for the loan. PG&E rebates and internal project engineering and management costs are not eligible. Table 2 below summarizes the estimated financial terms of the loan, as calculated by PG&E.

Table 2 – Planned LED Conversion Project Costs and OBF Loan

Cost Item	Amount
Total Conversion Project Costs	\$690,000
LED Rebate Amount	(\$79,000)
Project Engineering and Management Costs	(\$170,000)
Calculated OBF Loan Amount	\$441,000

Repayment by the City to PG&E for the loan would occur as the City pays the monthly energy bills for the converted streetlights. The City would continue paying for each converted streetlight at its current (prior to conversion) non-LED rate for energy usage. The difference between the cost that the City would pay for the current non-LED streetlight and the actual cost to PG&E for the new energy-efficient LED streetlight would be used to pay down the loan. For this project, PG&E is estimating \$9,200 per month in energy cost savings from the entire conversion project. Therefore, the City would be pay back the \$441,000 loan over a 48-month period.

After City completes the LED conversion project, PG&E would inspect and verify actual project costs. If the difference between the estimated cost in the Loan Agreement and the final project costs is found to be greater than \$100, PG&E and the City would execute a Loan Modification Agreement. For processing efficiency purposes and to ensure that the loan is available to the City as quickly as possible, staff is recommending that the City Council authorize the City Manager to execute the Loan Modification Agreement, if necessary.

Once the loan is issued to the City, DOT would utilize this funding to purchase approximately 2,100 additional LED fixtures. These fixtures would then be used to replace higher-wattage LPS streetlights along major arterials and collector streets throughout the City as they burn out. This approach would help to reduce the number of non-converted streetlights in the City and cut down the number of replacement LPS lamps and fixtures that would need to be purchased.

EVALUATION AND FOLLOW-UP

No further Council action is necessary. DOT staff are evaluating other financing options that could support additional streetlight conversion projects.

PUBLIC OUTREACH

This memorandum will be posted on the City's Council Agenda website for the September 11, 2018 Council Meeting.

COORDINATION

This Council Memo has been coordinated with the City Attorney's Office, San José Community Energy Department, and Planning, Building and Code Enforcement Department.

COMMISSION RECOMMENDATION/INPUT

No commission recommendation or input is associated with this action.

FISCAL/POLICY ALIGNMENT

OBF Program eligibility is granted to Community Choice Aggregation (CCA) customers who install qualifying energy efficiency measures if they receive a monthly bill from PG&E which includes PG&E charges. The City's planned enrollment in San Jose Clean Energy, a CCA program, in September 2018 will not affect the City's eligibility for the OBF Program since PG&E will continue to administer City accounts.

LED streetlight conversion is aligned with Council Policy 4-2 concerning public streetlights, and the associated "Public Streetlight Design Guide". Because the City is still in the process of exploring and evaluating next generation "smart controllers" for streetlights, basic ON/OFF streetlight controllers are being used for near-term conversion projects instead of the costlier last generation smart controllers.

COST SUMMARY/IMPLICATIONS

The no interest OBF loan will provide \$441,000 for the purchase of 2,100 LED fixtures, with installation expected to be completed by the end of 2019. The funding is anticipated to be received in the February/March 2019 timeframe and is recommended to be recognized in the General Fund and allocated to the Department of Transportation's Non-Personal/Equipment appropriation, aligning with the source of repayment and for the funding of replacement LPS bulbs. The Department's ongoing allocation for electricity costs will support the loan repayment over a four-year period, from estimated energy cost savings through the streetlight conversions in the greater Downtown area and along newly added Vision Zero corridors, which used High Pressure Sodium bulbs and consumed a lot of energy. The estimated monthly energy cost savings from the streetlight conversions in the greater Downtown and along newly added Vision Zero corridors is \$9,200, which equals the estimated payback installment.

Savings from converting LPS bulbs to LED fixtures is anticipated and can be used to offset energy cost increases.

BUDGET REFERENCE

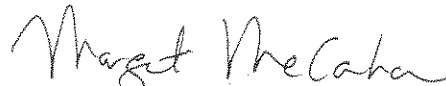
Fund #	Appn #	Appn. Name	Total Appn	Budget Action	2018-2019 Proposed Operating Budget Page*	Last Budget Action (Date, Ord. No.)
001	R130	Other Revenue	\$ 6,897,000	\$441,000	III-1	06/19/2018 78671
001	0512	Non-Personal\Equipment - Department of Transportation	\$15,683,838	\$441,000	VIII-336	6/19/2018 30124

* The 2018-2019 Proposed Operating Budget was adopted by the City Council on June 19, 2018.

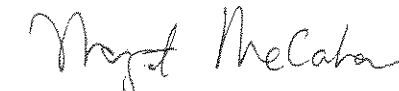
CEQA

Not a Project, File No. PP17-003, Agreements/Contracts (New or Amended) resulting in no physical changes to the environment.

/s/
JOHN RISTOW
Acting Director of Transportation


MARGARET MCCAHAH
Budget Director

I hereby certify that there will be available for appropriation in the General Fund in Fiscal Year 2018-2019 moneys in excess of those heretofore appropriated therefrom, said excess being at least \$441,000.


MARGARET MCCAHAH
Budget Director

For questions, please contact Guixiang Chen, Senior Engineer, at (408) 975-3272.