



Office of the City Manager

INFORMATION CALENDAR

November 19, 2013

To: Honorable Mayor and Members of the City Council

From:  Christine Daniel, City Manager

Submitted by: Andrew Clough, Director, Public Works

Subject: Citywide LED Street Light Replacement – Update on Process

INTRODUCTION

On October 29, Council adopted Resolution No. 66,356–N.S. authorizing the City Manager to enter into a loan agreement with the California Energy Commission (CEC) for up to \$3.5 million, for replacement of high pressure sodium and metal halide streetlights with light emitting diode (LED) fixtures. The scope of the streetlight replacement project includes contracting with a qualified firm to undertake a turnkey (design-build) process for the conversion of approximately 8,000 existing streetlights to LED equivalents throughout the City. The Request for Proposals (RFP) for a contractor will be initiated in parallel to the loan application, and include submission of an alternative financing plan, should the CEC loan be denied.

Debt service on the CEC loan or other financing will be paid by a combination of energy savings and PG&E rebate incentives resulting from the conversion. In order to benefit from the full amount of PG&E rebates, the project must be completed by the end of calendar year 2014.

If the CEC does not approve the City's loan application, other funding options will be used. While these would likely have a higher interest rate and longer return on costs, some other requirements imposed by the CEC would not be included. The City would still realize lower energy costs and rebates from PG&E for project completion in 2014.

Council will receive another update by March 2014 on the progress of the CEC application and the RFP responses.

CURRENT SITUATION AND ITS EFFECTS

The City's existing streetlights consist of high pressure sodium and metal halide lamps. LED technologies are now available that provide better and more efficient illumination.

An initial analysis of the conversion of all existing streetlights has a replacement cost estimate of \$3.5 million. The analysis indicates these project costs could be financed through a combination of PG&E incentives and a 1% 15-year loan from the California Energy Commission (CEC). Energy savings are projected to produce a modest positive

cash flow (savings will modestly exceed debt service costs) beginning in the first year. In addition, the City would be eligible to receive PG&E rebate incentives of up to \$842,000 to the extent of project completion in calendar year 2014. These incentives could offset some of the cost of the conversion, or potentially be used to improve directional lighting in specific street and sidewalk areas, and to upgrade deficient lighting fixtures within City facilities identified by the design consultant and/or City personnel.

The RFP for a consultant/contractor to implement the conversion to LED lighting will be released in early December. The CEC loan will go to their Board in January and the outcome is expected soon after their decision is made.

BACKGROUND

LED fixtures are a proven alternative to high pressure sodium and metal halide street lighting. LEDs are more efficient than existing lamps, have much longer life spans, and produce higher quality light that renders truer colors.

Cost savings: The City currently spends over \$600,000 for electricity to power our street lights.

Energy from street lights accounts for over 1,000 metric tons of carbon dioxide emissions annually, or approximately 13% of municipal emissions from all sources -- utility energy, transportation fuels and land filled waste. An LED conversion could reduce emissions from street light energy by 50%, accounting for an estimated 6.5% reduction in overall municipal emissions.

POSSIBLE FUTURE ACTION

If the CEC loan is not approved, alternative financing will be sought through the RFP.

FISCAL IMPACTS OF POSSIBLE FUTURE ACTION

The PG&E rebate programs expires at the end of December 2014, so in order to move as quickly as possible, the City will complete the CEC loan application and the procurement specification (RFP) in parallel. The RFP spec will include an alternate for vendor financing, as a contingency if the CEC loan is denied.

In addition, an FY 2014 midyear appropriation will be needed for the loan once it is approved, so that the retrofit contract can be executed. Payable invoices aren't expected until July 2014, so the encumbrance will carry over into FY 2015.

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