



Public Works Commission

INFORMATION CALENDAR

June 4, 2013

To: Honorable Mayor and Members of the City Council

From: Public Works Commission

Submitted by: Ray Yep, Chair

Subject: Conversion to LED Street Lights

INTRODUCTION

In February 2012, the Council referred the matter of converting to LED street lights to the Public Works and the Energy Commissions. Due to evolving technologies, scenarios for implementation, and discussion held at the Council's March 19, 2013 workshop, this report back to Council was held off to incorporate the latest developments.

CURRENT SITUATION AND ITS EFFECTS

The two Commissions conferred and the Public Works Commission (PWC) was designated to be the lead in responding to the Council. Input from the Energy Commission was provided as they discussed the three questions raised by the Council referral during its January 2013 meeting. The Energy Commission noted that there are no apparent legal or regulatory obstacles to LED retrofits and that LED retrofits may be economically viable if bulk purchasing can bring down costs below those of the Marina pilot project.

Regarding the color of the LEDs, the Energy Commission expressed that this is an issue of individual perception and preference and although the Commission does not have a strong opinion on the subject, it is willing to look into it further if asked by the Council. The Commission did suggest that staff consider piloting LEDs in some residential areas.

At the April 4, 2013 meeting, the Public Works Commission approved this report by the following vote: M/S/C (Schueler/Haramati) Ayes - Schueler, Haramati, Neal, Kelley, Swift, Yep; Noes - None; Abstain - None; Absent - Henry.

BACKGROUND

In FY 2013, \$48,000 was budgeted in capital improvements to leverage the conversion of City street lighting to LED fixtures. A pilot project was completed at the Berkeley Marina and another is planned for Telegraph Avenue between Bancroft Way and Dwight Way.

The main economic benefit from LED lighting is greater efficiency over traditional and other alternative lighting sources. This efficiency results in cost savings from lower electricity bills and reduced replacement costs for the much longer life of these fixtures. Savings from an LED streetlight conversion could fund new streetlights in the City.

Since the referral to the PWC, staff has acquired data on experience in other jurisdictions to help advance the planning of the conversion process. One option being considered for Citywide conversion to LED is a “turnkey” approach, wherein the City would engage with a private entity that would “front” the initial cost of purchasing and installing the lights and then get paid back from the initial energy savings.

This approach has several advantages. The start-up conversion cost will be high, since the initial cost of each LED light is higher than for traditional light bulbs. Their contract ends after the payback period and the City will retain the ongoing annual savings.

POSSIBLE FUTURE ACTION

The PWC suggests the following actions be considered in the future:

1. In determining the appropriateness and scope of LED streetlight replacement, Public Works staff consider the following:
 - Cost of “turnkey” contract to the City of Berkeley;
 - Use of existing capital as compared to 3rd party financing;
 - Pattern and size of roll-out (e.g. how much of the city is covered); and
 - Timing of rollout.
2. Public Works staff evaluate the appropriateness and consistency of street lighting across the City, and identify areas where lighting is inappropriate for future lighting changes.
3. The new LED lights have adjustable coverage (between sidewalk and street lighting) where needed.
4. A timeline to begin the turnkey process could be based on staff executing a contract with a private entity by fall of 2013. The conversion could be fully implemented within several months, based on the PWC’s understanding from other communities.
5. The LED conversion should be monitored for energy savings and that the results be reported to the Council. PWC suggests that Council consider using any future operational savings from the LED conversion to increase lighting equity in Berkeley through the installation of additional lamps.

FISCAL IMPACTS OF POSSIBLE FUTURE ACTIONS

The Citywide LED street light conversion could be implemented without any initial cost to the City, with the future benefits of considerable savings in energy costs and maintenance/replacement.

CONTACT PERSON

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