

STATE OF CALIFORNIA

Public Utilities Commission
San Francisco

M e m o r a n d u m

Date: May 21, 2013

To: The Commission
(Meeting of May 23, 2013)

From: Lynn Sadler, Director
Office of Governmental Affairs (OGA) – Sacramento

Subject: **AB 719 (Hernandez) – Energy: Energy Efficiency.**
As amended: April 16, 2013

RECOMMENDED POSITION: SUPPORT IF AMENDED

SUMMARY OF BILL

This bill would require the California Public Utilities Commission (CPUC) to require, on or before March 1, 2014, electric utilities to submit a tariff to fund street light energy efficiency improvements. Specifically, the bill would:

- Allow the tariff to be used at the discretion of the local government
- Enable reduced energy consumption and lower electricity bills for local governments;
- Allow local governments to pay for the cost of the street light improvement over time through the tariff
- Allow street light conversion as a part of this bill to be eligible for ratepayer funded energy efficiency rebates or incentives.

CURRENT LAW

Nothing in current law specifically guides the replacement of inefficient street lights in California.

AUTHOR'S PURPOSE:

Local governments would like to convert to more efficient street lights but are unable to because some street light equipment (luminaires, poles, etc.) are owned by the utility.

The bill proposes tariffs be used as a funding mechanism to allow participating local government to pay for the conversions through the tariff over time. This protects non-participating ratepayers from subsidizing the local government street light conversions.

DIVISION ANALYSIS (Energy Division)

- Currently, there are two main rate schedules for street lights:
 - 1) **“LS-1” for street lights owned by the IOU.** The LS-1 street light rate schedule is typically used by smaller cities and municipalities that do not have the resources to own and maintain their own street lights. The utility owns and maintains the luminaire, control facilities, support arm, service wiring, the pole or post, the foundation, and the underground or overhead circuits.
 - 2) **“LS-2” for street lights owned by the local government.** The LS-2 rate schedule is typically used by larger cities that are able to own the street lighting equipment, including, but not limited to, the pole, mast arm, luminaire and lamp, and all connect cables in a street light system.
- Under either rate schedule, the total monthly charge per lamp is equal to the sum of a “facility charge” and an energy charge. The facility charge includes the cost of owning, operating, and maintaining the various lamp types and sizes and, under schedule LS-1, the costs of owning and maintaining the pole and related equipment. The facility charge for the LS-2 schedule is much lower than the facility charge for the LS-1 schedule. The monthly energy charge per lamp is calculated based on a formula that takes the lamp wattage X 4,100 hours / 12 months / 1000 X the streetlight energy rate per kWh¹.
- This bill would require the CPUC to issue a decision, on or before March 1, 2014, requiring electric utilities to propose a **third** street light rate schedule.
- Since the bill allows the tariff to be used “at the discretion of the local government” this could be interpreted as a voluntary activity and the uptake will depend on the extent to which the new rate schedule is economically attractive to local governments and the degree of awareness of it (due to marketing and outreach, etc.). At most, this bill could result in the replacement of about 857,000 utility owned street lights across the state. But since the bill requires the tariff to be designed to allow the local governments to pay for the cost of the improvement through the tariff, it’s unlikely that all eligible cities would choose to participate.
- For the local governments that do participate, ratepayer-funded energy efficiency programs may see an increase in rebate and incentive applications for exterior street lighting, because the bill ensures that street lighting conversions pursued under this bill be eligible for energy efficiency program incentives (even though the equipment is actually owned by the utility, not the local government). Energy Divisions

¹ See page 1 of PGE’s LS-1 schedule: http://www.pge.com/tariffs/tm2/pdf/ELEC_SCHEDS_LS-1.pdf
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estimates \$43 million as the maximum impact on energy efficiency programs, assuming rebates / incentive levels of ~ \$50/fixture).

- The bill would likely increase numbers of installations of LED street light technology. LEDs have been identified in the CPUC's energy efficiency potential studies as a promising emerging technology which is expected to generate new cost-effective savings potential over time as demand for the technology increases and the cost comes down at production scale.

SAFETY IMPACT

Assuming (Light Emitting Diode) street lights (LED) are used, LED street lights last longer than non-efficient street lights; therefore, the bill potentially enhances public safety by reducing the incidence of non-functioning streetlights.

RELIABILITY IMPACT

None identified.

RATEPAYER IMPACT

The bill requires the tariff to be designed so that only the participating local governments pay for the conversion over time through the tariff. As a result, this requirement should not result in a rate impact for non-participating ratepayers. The rate impact on participating local governments is unknown at this time, because it would depend on the specifics of the tariff the utilities' propose and the CPUC approves when this bill is implemented.

FISCAL IMPACT

ALJ Division identified a fiscal impact of 1 ALJ II for 6 months (or \$78,335) to run a proceeding and write a decision directing the utilities to propose a new tariff implementing the bill.

Energy Division identified a fiscal impact of 1 PURA III for 6 months (or \$54,358) to assist the ALJ and decision-makers in writing a decision to implement the bill and to review / approve any advice letter filings generated from Commission decisions pursuant to the bill.

The total fiscal impact for this bill is \$132,693.

ECONOMIC IMPACT

There currently are no programs that encourage utilities to replace street lights that they own with more efficient street lights. (There are programs to encourage energy efficient retrofits of local government-owned street lights.) Because the bill requires street light

conversions pursued under the bill to be eligible for ratepayer-funded energy efficiency rebates or incentives, the bill would open eligibility to this new class of utility-owned equipment.

From the participating local government point of view, they will eventually see a positive economic impact in the form of lower energy bills as the result of using more efficient street lights. Depending on how the tariff is designed, the local government will likely feel a negative economic impact for the first several years of this bill, as the participating local government is paying off the capital cost of the conversion. Over time, as the conversion is fully amortized, the resulting energy bill savings would likely provide positive economic benefits for the participating local government.

From the perspective of the energy efficiency program budgets, there would likely be (short-term) negative impacts on portfolio cost-effectiveness, because LED technology is more costly than other energy efficient technologies, and therefore has a benefit-cost ratio below 1.0 (as measured by the total resource cost test). The CPUC provides (limited) support for emerging technologies that do not yet reach cost-effectiveness thresholds in order stimulate demand, contribute to decreased costs over time as the technology scales up, and expand new sources of energy efficiency potential. Pursuant to law, the CPUC must ensure that ratepayer-funded energy efficiency programs are cost effective. Because the CPUC manages the utilities' energy efficiency program cost-effectiveness on a portfolio basis, however, some support for emerging technologies that are not yet cost-effective is permissible. However, depending on the amount of energy efficiency program dollars tapped to fund LED retrofits under this bill, there may be impacts on the rest of the portfolio in terms of what can and cannot be funded while maintaining an overall portfolio cost-effectiveness ratio that exceeds the minimum 1.0 TRC threshold. Staff expects the maximum dollar impact to be \$43 million, which is only 2.6% of the electric utilities' total authorized budget for 2013-14 (\$1.72 billion)

LEGAL IMPACT

Legal Division finds no legal issue with this bill.

LEGISLATIVE HISTORY

AB 1235 was introduced by Assembly Member Roger Hernandez in the 2011-2012 regular session but did not pass. AB 1235 also required electric utilities to replace inefficient street light poles that they own with energy efficient street lights but capped the total number of lamps at 100 per utility per customer. That bill required energy efficiency program information be posted on the electric utilities' websites.

AB 1235 was introduced on 2/18/2011 and read and amended three times, the last amended date was 8/24/12 in Senate. Last historical action: "Read second time. Ordered to third reading. Re-referred to Com. On RLS. Pursuant to Senate Rule 29.10(c)."

Source: http://www.leginfo.ca.gov/pub/11-12/bill/asm/ab_1201-1250/ab_1235_bill_20120827_history.html

http://www.leginfo.ca.gov/pub/11-12/bill/asm/ab_1201-1250/ab_1235_bill_20121116_status.html

AB 719 was introduced on 2/21/2013 and substantially amended on 4/16/2013 and referred to Appropriations Committee on 4/17/2013.

PROGRAM BACKGROUND

Most street lights in California are either owned by the utility or by the municipality. This bill addresses street lights owned and maintained by the utility.

OTHER STATES' INFORMATION

The Department of Energy (DOE) has a municipal solid-state street lighting consortium that shares technical information and experiences related to LED street and area lighting with cities, power providers and others who invest in street and area lighting, but this seems to be more catered to municipalities that own their own street lights: <http://www1.eere.energy.gov/buildings/ssl/m/consortium.html>

In Portland, the Transportation Bureau is responsible for the 8,500 street lamps they own, and they are converting their lamps, but the site makes no reference to how this is funded:

<http://www.portlandoregon.gov/transportation/article/192895>

The New York State Energy Research and Development Authority (NYSERDA) published a "How-To Guide to Effective Energy Efficient Street Lighting for Municipal Elected/Appointed Officials" in October 2002, which identifies that the New York State Electric and Gas has two street lighting service classifications: 1) Municipalities can lease streetlights, or 2) the municipality can own and maintain their own street lights. This is similar to California, but the document only says that "the pricing will vary within each utility tariff depending upon the streetlight wattage, lamp type, pole type..." for municipalities that lease the street lights from the utility. The document also identifies state and federal funding sources.

<http://www.rpi.edu/dept/lrc/nystreet/how-to-officials.pdf>

SUMMARY OF SUPPORTING ARGUMENTS FOR RECOMMENDATION

This bill should be supported if amended for the following reasons:

- (1) The bill will result in electric savings in the state contributing to climate and energy goals.

(2) The bill allows participating governments to pay for their own conversions, thus avoiding cross-subsidization by non-participants.

SUMMARY OF SUGGESTED AMENDMENTS

On top of page 2, the phrase “on or before March 1, 2014” should be changed to “within 18 months of the effective date of this bill.”

STATUS:

AB 719 is in the Senate pending policy committee referral.

SUPPORT/OPPOSITION

Support

Sierra Club California

Opposition

San Diego Gas & Electric (SDG&E)
Southern California Edison (SCE) (unless amended)
Pacific Gas and Electric (PG&E)

VOTES

May 16, 2013 – Assembly Floor (53-18).

May 8, 2013 – Assembly Appropriations Committee (12-5).

April 8, 2013 – Assembly Utilities & Commerce Committee (10-3).

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BILL LANGUAGE

BILL NUMBER: AB 719 AMENDED
BILL TEXT

AMENDED IN ASSEMBLY APRIL 16, 2013

INTRODUCED BY Assembly Member Roger Hernández

FEBRUARY 21, 2013

An act to add Section 384.5 to the Public Utilities Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 719, as amended, Roger Hernández. Energy: energy efficiency. Under the Public Utilities Act ~~-(the act),~~, or the act, the Public Utilities Commission ~~-(PUC)~~, or the PUC, has regulatory authority over public utilities, including electrical corporations. The act requires the commission to review and adopt a procurement plan for each electrical corporation in accordance with specified elements, incentive mechanisms, and objectives. The act requires that an electrical corporation's proposed procurement plan include certain elements, including a showing that the electrical corporation will first meet its unmet needs through all available energy efficiency and demand-reduction resources that are cost effective, reliable, and feasible. Existing law requires the PUC, in consultation with the State Energy Resources Conservation and Development Commission, to identify all potentially achievable cost-effective electricity efficiency savings and establish efficiency targets. A violation of the act is a crime.

This bill would require ~~an electrical corporation as part of the above described energy efficiency targets to replace low efficiency light bulbs with high efficiency light bulbs in street light poles that the electrical corporation owns, at the same rate as the city, county, or city and county in which any of the electrical corporation's street light poles are located or at the highest rate of an adjacent city or county if the street light poles are located in a city or county that does not own any street light poles~~ the commission, on or before March 1, 2014, to order electrical corporations to submit a tariff to be used, at the discretion of local governments, to fund energy efficiency improvements in street light poles owned by the electrical corporations. This bill would state the intent of the Legislature that ~~this program be funded through existing collection mechanisms, and that the implementation of this program not result in an increase in any amount collected utility-owned street light poles, whose electricity use is paid by local governments, be converted to use cost-effective technology that reduces electricity consumption to achieve lower utility bills~~.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: yes.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 384.5 is added to the Public Utilities Code, to read:

384.5. (a) It is the intent of the Legislature that ~~the program created by this section be funded through existing collection mechanisms for the purposes of achieving cost effective electricity savings and establishing energy efficiency targets, and that the implementation of this program not result in an increase in any amount collected for these purposes.~~

electrical-corporation-owned street light poles, whose electricity use is paid by local governments, be converted to use cost-effective technology that reduces electricity consumption so that a city, county, or city and county may achieve lower utility bills for the electricity used by these street light poles.

~~—(b) As part of the energy efficiency targets created pursuant to Section 454.55, an electrical corporation shall, for street light poles the electrical corporation owns, implement a program targeting the replacement of low efficiency light bulbs with high efficiency light bulbs.~~

~~—(c) (1) For street light poles owned by an electrical corporation, the electrical corporation shall install high efficiency light bulbs in those street light poles at the same rate that the city, county, or city and county in which those street light poles are located has installed high efficiency light bulbs.~~

~~—(2) For street light poles located in a city, county, or city and county that do not own any street lighting infrastructure, the electrical corporation shall install high efficiency light bulbs in those street light poles owned by the electrical corporation at the rate of installation of an adjacent city or county with the highest rate of installation.~~

(b) On or before March 1, 2014, the commission shall order electrical corporations to submit a tariff to be used, at the discretion of local governments, to fund energy efficiency improvements in street light poles owned by the electrical corporations to ensure reduced energy consumption and lower electricity bills for local governments who are streetlight customers covered by these tariffs.

(c) The tariff shall be designed to allow local governments to remit the cost of the improvement through the tariff over time, resulting in lower energy consumption and lower energy bills, without shifting costs to nonparticipating ratepayers.

(d) Notwithstanding subdivision (c), the conversion performed pursuant to the tariff submitted under subdivision (b) shall be eligible for any rebate or incentives available through

ratepayer-funded programs intended to increase energy efficiency.

—(d)

(e) For the purposes of this section, the following terms have the following meanings:

(1) "Electrical corporation" means an electrical corporation, as defined in Section 218, with at least 100,000 service connections in California.

(2) "Street light pole" means a pole, arm, or fixture used primarily for street, pedestrian, or security lighting.

SEC. 2. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.