Legislation Details (With Text)

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Title:	CONSIDER APPROVAL OF A LS-1 OPTION E AGREEMENT WITH SOUTHERN CALIFORNIA EDISON (SCE) TO REPLACE SCE OWNED AND MAINTAINED HIGH PRESSURE SODIUM VAPOR (HPSV) STREET LIGHTS WITH LIGHT-EMITTING DIODE (LED) STREET LIGHTS (CITY COUNCIL)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	1. Exhibit No. 1 - LS-1 Option E Agreement.pdf, 2. Exhibit No. 2 - CLMD Map Carson.pdf, 3. Exhibit No. 3 - Color Temp Chart.pdf				

Date	Ver.	Action By	Action	Result

Report to Mayor and City Council

Tuesday, November 17, 2020

Consent

SUBJECT:

CONSIDER APPROVAL OF A LS-1 OPTION E AGREEMENT WITH SOUTHERN CALIFORNIA EDISON (SCE) TO REPLACE SCE OWNED AND MAINTAINED HIGH PRESSURE SODIUM VAPOR (HPSV) STREET LIGHTS WITH LIGHT-EMITTING DIODE (LED) STREET LIGHTS (CITY COUNCIL)

I. SUMMARY

The LS-1 Option E tariff is a program that allows SCE to replace High Pressure Sodium Vapor (HPSV) street lights with more efficient Light Emitting Diode (LED) street lights with no out-of-pocket capital cost to cities and counties. Instead, initial capital costs will be amortized through energy cost savings over a 20 year period (Exhibit No. 1).

There are 1,100 SCE owned and maintained street lights that are under account directly with the City and those are the lights that the LS-1 Option E Agreement will cover. The SCE produced analysis shows an annual net savings of approximately $34,600 in energy bills during the 20-year repayment period and $59,800 per year after 20 years.

If Council approves the Agreement, the conversion work is anticipated to start around March-April 2021.

II. RECOMMENDATION

TAKE the following actions:

1. APPROVE an LS-1 Option E agreement with SCE to replace SCE owned and maintained High Pressure Sodium Vapor street lights with Light Emitting Diode (LED) street lights.

2. AUTHORIZE the City Manager to execute the agreement substantially similar to the attached Schedule LS-1 Option E, Energy Efficiency-LED Replacement Rate Agreements with Southern California Edison

3. AUTHORIZE staff to give the County permission to execute the LS-1 Option E Agreement with SCE for the street lights located within the County Lighting Maintenance District, if LA County Board approval is obtained.

1.

III. ALTERNATIVES

1. DO NOT APPROVE the agreement and keep the street light fixtures as-is.

2. TAKE another action the City Council deems appropriate, consistent with the requirements of the law.

IV. BACKGROUND

There are approximately 9,000 street lights within the public rights of way that are owned and maintained by the City or SCE and they fall into one of three main groups.

1. Approximately 1,000 street lights are owned and maintained by the City. These lights were already replaced with LED fixtures a few years ago. These lights are mostly located along medians, bridges, and over traffic signals. These fall under SCE's LS-2 and LS-3 cost tariff. The City oversees and pays SCE directly for the bills out of the City budget.

2. Approximately 1,100 street lights are owned and maintained by SCE but under account with the City. These lights are mostly located on sidewalks along residential and arterial streets and they fall under SCE's LS-1 cost tariff. City Council approval of the item

would authorize SCE to convert these 1,100 street lights from HPSV to LED. The City oversees and pays SCE directly for the bills out of the City budget. SCE's estimated project cost to convert these lights is $502,850 at an approximate cost of $341/light for a 50-watt equivalent light up to $542/light for a 250-watt equivalent light.

3. Approximately 6,800 street lights are owned and maintained by SCE but under account with the County. These lights are all located in the City along residential and arterial streets and they fall under SCE's LS-1 cost tariff. The Los Angeles County Board of Supervisor is expected to approve the Option E agreement at their November 17 meeting. Approval of the item would authorize SCE to convert these 6,800 street lights from HPSV to LED. The County oversees and pays SCE directly for the bills out of the County Lighting Maintenance District (CLMD) account established for City of Carson. SCE's estimated project cost to convert these lights is $2,766,640. A map showing the general area of these street lights is attached as Exhibit No. 2.

The City is not expected to pay any additional costs to participate in this program. SCE recovers this capital cost over a 20-year period through energy cost savings which will be rolled into the existing rate schedule. The energy costs savings is expected to be greater than the recovery mechanism; therefore, the City expects to sees a net savings on the energy bill each month. Per SCE's estimate, during the 20-year repayment period, the City would receive an approximate net savings of $34,600 per year in energy bills. After 20 years, SCE calculations indicate that the City would receive a savings of approximately $59,800 per year.

The LS-1 Option E program provides an option for either 3000K or 4000K color temperature LED lights. Cities can select one or the other or a combination of both. A 3000K LED would produce a slightly warmer light than the 4000K as shown in the attached color temperature comparisons chart (Exhibit No. 3). LA County will be requesting that SCE install 3000K color temperature fixtures for the 6,800 street lights in the CLMD. Per County staff, the 3000K color temperature is aligned with County guidelines and recommendations by the American Medical Association and International Dark Sky Association and they have found that using the 3000K fixture (versus the alternative 4000K fixture) can minimize potential concerns from residents. County staff is knowledgeable in this area and City staff is planning to select the 3000K LED fixture for the 1,100 street lights that the City oversees.

Once the LS-1 Option E Agreement is executed, the City will be placed in the queue for replacement. The conversion work is anticipated to start around the end of March - April 2021 for all SCE owned street light. Since the County is expected to approve the agreement for the street lights within the CLMD, SCE is planning to tackle both groups of lights at the same time.

V. FISCAL IMPACT

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The LS-1 Option E agreement has a term of 20 years.

If the City wishes to terminate before the end of the 20-year term, the City must pay a one-time “termination charge” equal to the present value of the balance of the Energy Efficiency Premium Charge (EEPC) over the remaining Term. “The present value is determined based on SCE’s authorized rate of return on rate base, or discounted rate of 7.9%.

There is no out-of-pocket cost to the City for the replacement of the street lights. The cost is rolled into the LS-1 Option E rate. While SCE does not guarantee that any energy or bill savings will accrue, they do expect the City to see energy cost savings. An analysis produced by SCE shows annual net savings of approximately $34,600 in energy bills during the 20-year repayment period and $59,800 per year after 20 years.

VI. EXHIBITS

1. LS-1 Option E Agreement (pgs. 5-9)
2. CLMD Map for Carson (pg. 10)
3. Color Temperature Comparison Chart (pg. 11)

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