

**CITY OF LOS ANGELES**  
INTER-DEPARTMENTAL CORRESPONDENCE

0220-05923-0000

Date: January 10, 2022

To: The Mayor  
The City CouncilFrom:   
Matthew W. Szabo, City Administrative OfficerSubject: **INNOVATION FUND RECOMMENDATION – RESILIENT, SOLAR POWERED STREET LIGHTS****RECOMMENDATIONS**

That the Council, subject to the approval of the Mayor:

1. Establish and appropriate a new appropriation account entitled BSL – Resilient Solar Powered Street Lights in the amount of \$200,000 within the Innovation Fund No. 105/10 from the available cash balance of the Innovation Fund.
2. Transfer \$200,000 from the Innovation Fund No. 105/10, Account to be Established, BSL – Resilient Solar Powered Street Lights to Fund No. 100/84 as follows:

<u>Fund/Dept.</u>	<u>Acct No.</u>	<u>Account Name</u>	<u>Amount</u>
100/84	008780	Street Lighting Improvements and Supplies	\$ 188,600
100/84	001010	Salaries, General	<u>11,400</u>
Total:			\$ 200,000

3. Instruct the Bureau of Street Lighting to:
  - a. Separately track all encumbrances and expenditures of Innovation Fund monies so that unspent funds can be returned to the Innovation Fund at the end of the fiscal year;
  - b. Report to the Innovation and Performance Commission with an accounting of the funds, the lessons learned, and any obstacles faced;
  - c. Report to the Innovation and Performance Commission if, after the receipt of funds, the scope of the funded item differs from the scope approved for funding by the Mayor and the City Council; and,
  - d. As appropriate, include acknowledgment of the Innovation and Performance Commission on public materials, such as press releases or websites, that reference the Resilient, Solar Powered Street Lights project.
4. Authorize the City Administrative Officer to make technical corrections as necessary to those transactions included in this report to implement Mayor and Council intentions.

## SUMMARY

The City Administrative Officer herewith transmits the recommendation of the Innovation and Performance Commission (IPC) to approve funding in the amount of \$200,000 from the Innovation Fund (IF) for the Department of Public Works, Bureau of Street Lighting (BSL) – Resilient, Solar Powered Street Lights pilot project. Please note, as with all IPC recommendations, this report presents the idea as submitted by the Bureau and approved by the IPC along with the necessary recommendations to implement the idea as presented. If the scope of the Innovation Fund item changes after the Bureau receives funding, the Bureau must return to the IPC to present the revised scope to the Commission to determine whether alternative recommendations are required.

BSL proposes the Resilient, Solar Powered Street Lights Project to address three departmental priorities: 1) to reduce City costs associated with copper wire theft; 2) to address sustainability goals; and 3) to increase resiliency of the City's street lighting infrastructure. The proposed pilot project would replace at least 50 of the City's street lights with solar powered light fixtures. The new light fixtures would collect solar power throughout the day and provide for at least 12 hours of operation at night. BSL estimates the cost to be approximately \$3,900 per light, which includes the fixture itself (\$3,600) and installation (\$300). Installation of the fixtures is anticipated to occur within two months after the fixtures are procured.

BSL indicates that street lights have been increasingly affected by vandalism, power theft, and copper wire theft. It is estimated that this theft and vandalism costs the City in excess of \$4 million per year, and these costs continue to increase (C.F. 19-0600-S154). In 2020-21, the Bureau reported 2,292 copper wire theft incidents with an average repair cost exceeding \$2,000. By switching to solar powered street lights, the Bureau hopes to lower maintenance and repair costs and reduce the number of street light assets that are vulnerable to vandalism and copper wire theft, as solar powered lights do not require copper wire. In addition to reduced maintenance and repair costs, the Bureau also helps to achieve sustainability goals by reducing the City's carbon footprint through the use of solar powered infrastructure. Finally, solar powered lights would make the street lighting infrastructure more resilient, as storms, earthquakes, or other disasters that would normally affect the power distribution grid would not affect the solar powered street lights.

The Bureau does currently have some solar powered street lights, but the new proposed solar powered fixtures to be procured as part of this pilot project are an all-in-one integrated fixture. In the past, BSL has deployed solar lighting fixtures that have solar panels as a separate attachment to the pole and a battery bank at the base of the pole, but the Bureau has experienced theft of the battery bank. The integrated fixtures proposed as part of this project include the solar panels integrated at the top of the fixture and a battery bank within the pole, eliminating the need for a separate solar panel mounted on the side of the pole and hopefully lessening the theft of the battery bank.

Through this pilot project, the Bureau intends to test multiple different solar powered light fixtures to determine if the lights meet BSL quality standards and to determine the ongoing maintenance costs for these new solar lighting fixtures. The new fixtures would be installed in several locations throughout the City, with a priority for areas that experience high

levels of copper wire theft. Procurement of the fixtures would be done through the City's existing equipment and supply contracts, and installation would be done by BSL staff.

BSL indicates that the Bureau will measure the return on investment for the project by comparing the cost to replace the light fixture to the prior annual maintenance and repair cost for the previous fixture. In addition, it is anticipated there will be an ongoing cost reduction associated with eliminating the electricity charges for the lights that are converted to solar power. BSL intends to measure the success of the pilot project through the following metrics:

- The "always on" percentage for the street light compared to previous years;
- The amount saved in maintenance and repair costs; and,
- The number of theft and vandalism incidents.

If the pilot is successful, the Bureau intends to request additional funding through the annual budget process to procure additional solar powered lighting fixtures.

### **FISCAL IMPACT STATEMENT**

Approval of these recommendations will allocate \$200,000 of the remaining \$1,076,112 Innovation Fund 2021-22 available balance. The \$200,000 will be transferred to the Bureau of Street Lighting to begin implementation of the pilot project that has been approved by the Innovation and Performance Commission. In some cases, departments will incur ongoing costs.

### **FINANCIAL POLICIES STATEMENT**

The recommendations of this report are in compliance with the City's Financial Policies as Innovation Fund monies are being utilized for an eligible project which will improve the quality, efficiency and effectiveness of City service through innovation, productivity, and performance measurement.