AGENDA REPORT

Meeting Date: February 16, 2021

Item Number:

To: Honorable Mayor & City Council

From: Daren Grilley, City Engineer

Samer Elayyan, Project Manager

Subject: ACCEPTANCE OF THE CONTRACT WORK FOR THE PURCHASE AND INSTALLATION OF LIGHT EMITTING DIODE (LED) STREET LIGHT FIXTURES TO PRODUCE ENERGY SAVINGS FOR THE CITY OF BEVERLY HILLS BY EXPRESS ENERGY SERVICES INC., IN THE FINAL AMOUNT OF $4,861,450.59; AND

AUTHORIZATION OF CITY CLERK TO RECORD THE NOTICE OF COMPLETION

Attachments: 1. Notice of Completion

RECOMMENDATION

Staff recommends that City Council move to accept the described work with Express Energy Services, Inc. (EES), and authorize the City Clerk to record the attached Notice of Completion (NOC).

FISCAL IMPACT

The original contract purchase order (which included $440,000 contingency) was $5,105,294.64. The final contract amount is $4,861,450.59, which included $212,285.68 in change order work for the purchase of additional spare fixtures and nodes, purchase of electric pedestals based on the City's request and additional electrical work and wiring.

The current amount paid on the contract is $4,618,378.06 with the 5% retained earnings of $243,072.53 due to be paid 35 days following the recordation of the Notice of Completion. Funds for this project were provided from CIP Funds 0367 and 0200.

INTRODUCTION

This report provides information and requests City Council acceptance of the contract work in the final amount of $4,861,450.59 and authorization for the recordation of the NOC with the Los Angeles County Recorder, by the City Clerk.

DISCUSSION

On August 21, 2018, City Council approved an agreement in the amount of $5,105,294.64 with EES to purchase and install LED street light fixtures on City-owned lights to replace the old lamps. This project was implemented to:

- Reduce energy consumption and hence, provide cost savings to the City.
- Lower maintenance costs since light sources last longer, requiring less frequent lamp replacement.
- Improve lighting by having consistent, even distribution and directed lighting where it is needed the most.
- Reduce glare from streetlights as LED fixtures direct light downward onto the roadway and reduce the amount of light that is directed into a driver's eyes or nearby properties.
- Enhance controllability with options for instant on/off and light level adjustments to make LED lights better suited for use with advanced lighting control systems.
- Reduced greenhouse gas (GHG) emissions.

EES was issued a Notice to Proceed on October 15, 2018, and construction was substantially completed in November 2020. Public Works staff inspected all the work and is satisfied that the work was completed in accordance with the contract documents approved for this project.

Energy and Cost Savings Analyses

The LED Streetlight Project has produced energy and cost savings for the City. Energy measured in kilowatt-hour (kWh) and cost, measured in dollars, were derived from energy bills from the years 2018 to 2020. Baseline data was derived from 2018 energy bills because it was before the LED conversion. Energy bill data from 2019 and 2020 were used to evaluate energy and cost savings as the project progressed in 2019 and substantially completed by the 2020 calendar year.

To add context to the analyses, the energy and cost savings were also attributed to the operation of the streetlights. Luminescence (brightness) settings for residential areas, which are the majority of the City streetlights, were set at fifty percent (50%). Commercial and major thoroughfares were set at seventy-five percent (75%) and one-hundred percent (100%). In addition, the streetlights are using fifty percent (50%) renewable electricity from the Clean Power Alliance (CPA) and is cost equivalent to Southern California Edison's (SCE) thirty-three percent (33%) renewable content commonly used for streetlights. During this time period, there were also streetlight rate increases.

Table 1 and Figure 1 provide the energy during the first two years of the project. As seen in Table 1, energy efficiency began to increase as the project progressed. Overall, the energy savings (kWh) for years 2019 and 2020 were 59% and 65%, respectively.

Table 1: Energy Savings

	Non-LED kWh	LED kWH	LED kWh
	2018	2019	2020
Jan	460,531	335,242	164,864
Feb	421,625	208,344	144,274
Mar	432,867	153,439	140,928
Apr	373,862	136,798	126,282
May	327,944	135,636	124,483
Jun	330,902	118,378	110,871
Jul	302,679	110,284	116,989
Aug	305,915	113,726	101,556
Sep	352,456	116,816	112,779
Oct	364,024	126,737	138,781
Nov	381,376	147,016	139,120
Dec	431,566	155,494	170,149
Annual Total	4,487,765	1,859,929	1,593,096
Annual KwH Savings		2,627,836	2,894,669
Annual % KwH Savings		59%	65%

Figure 1: Annual Energy Savings

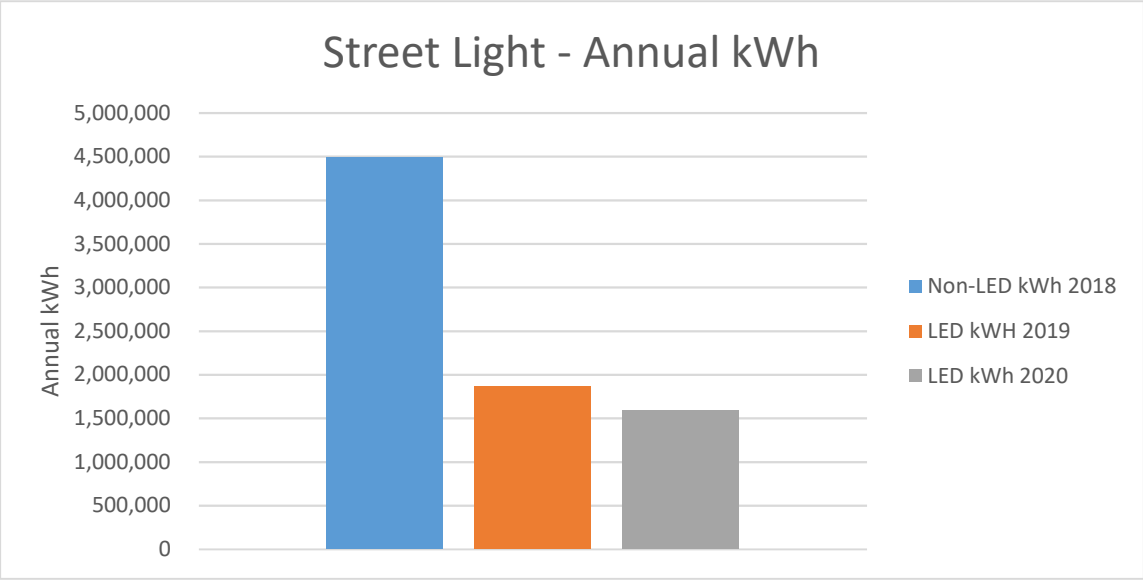
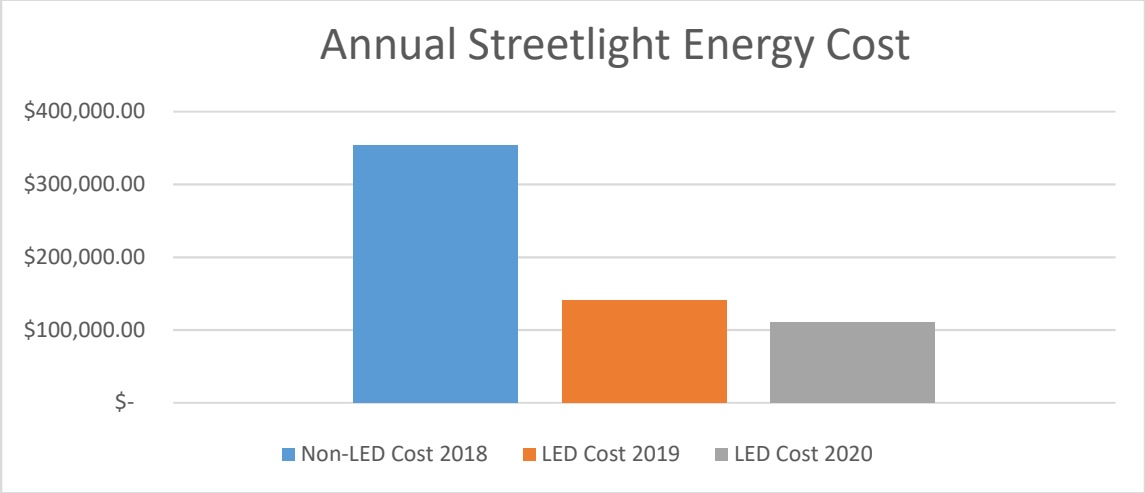


Table 2 and Figure 2 provide the cost savings for the first two years of the project. Cost savings were observed in 2019 and 2020 at 60% and 69%, respectively. This is equivalent to $213,321.13 and $243,690.74, respectively. Considering there was a streetlight rate increase these last two years, the City's cost saving benefits were significant.

Table 2: Cost Savings

	Non-LED Cost 2018	LED Cost 2019	LED Cost 2020
Jan	$ 35,111.81	$ 27,289.70	$ 9,508.08
Feb	$ 32,839.61	$ 18,158.48	$ 8,891.01
Mar	$ 33,704.25	$ 13,598.73	$ 8,807.07
Apr	$ 29,682.98	$ 12,219.81	$ 8,139.35
May	$ 26,564.97	$ 13,554.62	$ 8,386.98
Jun	$ 26,805.02	$ 7,046.81	$ 7,949.68
Jul	$ 25,190.76	$ 7,372.06	$ 8,595.54
Aug	$ 25,535.08	$ 7,453.32	$ 7,813.85
Sep	$ 27,241.07	$ 7,181.88	$ 8,361.93
Oct	$ 25,887.41	$ 7,764.25	$ 9,765.34
Nov	$ 30,184.58	$ 8,529.41	$ 10,738.38
Dec	$ 33,667.19	$ 8,923.53	$ 11,764.78
Annual Total	**$ 354,432.73**	**$141,111.60**	**$ 110,741.99**
Annual Cost Savings		**$ 213,321.13**	**$ 243,690.74**
Annual % Cost Savings		**60%**	**69%**

Figure 2: Annual Streetlight Energy Cost



The next step for the streetlight operation is to work with Southern California Edison to retrofit their streetlights in Beverly Hills to LEDs. This would reduce energy use consumption and cost to the City.

Shana Epstein,
Director of Public Works
Approved By

Attachment 1

THIS DOCUMENT IS OFFICIAL BUSINESS
OF THE CITY OF BEVERLY HILLS AND
ENTITLED TO FREE RECORDING UNDER
SECTION 6103 OF THE GOVERNMENT CODE

Requested by _____

AFTER RECORDING MAIL TO:

CITY CLERK'S OFFICE
Room 290, City Hall
455 North Rexford Drive
Beverly Hills, CA 90210

Space above this line for recorder's use

NOTICE OF COMPLETION

Notice is hereby given that:

1. The undersigned is owner of the interest or estate stated below in the property hereinafter described.
2. The full name of the undersigned is **City of Beverly Hills**
3. The full address of the undersigned is **455 North Rexford Drive, Beverly Hills, CA 90210**
4. The nature of the title of the undersigned is: **In fee.**
5. The full names and addresses of all persons who hold title with the undersigned are:
   None
6. A work of improvement on the property hereinafter described was completed on **February 16, 2021**
7. The name of the contractor, if any, for such work of improvement was
   EXPRESS ENERGY SERVICES, INC.
8. The property on which said work of improvement was completed is in the City of **Beverly Hills,** County of **Los Angeles,** and State of **California**, as is described as:
   THE PURCHASE AND INSTALLATION OF LIGHT EMITTING DIODE (LED) STREET LIGHT FIXTURES TO PRODUCE ENERGY SAVINGS FOR THE CITY OF BEVERLY HILLS
9. The street address of said property is **City of Beverly Hills**

Dated: _____

STATE OF CALIFORNIA } Signature of }
COUNTY OF LOS ANGELES } Owner or Owners } _____

_____, being duly sworn, says: That she is the _____
of the **City of Beverly Hills**, the corporation that executed the foregoing notice as owner of the aforesaid interest or estate in the property therein described; that she makes this verification of behalf of said corporation; that she has read said notice and knows the contents thereof, and that the facts therein stated are true.

Signature of
Corporate Officer
Named Above X _____

Attachment 1

THIS DOCUMENT IS OFFICIAL BUSINESS
OF THE CITY OF BEVERLY HILLS AND
ENTITLED TO FREE RECORDING UNDER
SECTION 6103 OF THE GOVERNMENT CODE

Requested by _____

AFTER RECORDING MAIL TO:

CITY CLERK'S OFFICE
Room 290, City Hall
455 North Rexford Drive
Beverly Hills, CA 90210

Space above this line for recorder's use

NOTICE OF COMPLETION

Notice is hereby given that:

1. The undersigned is owner of the interest or estate stated below in the property hereinafter described.
2. The full name of the undersigned is **City of Beverly Hills**
3. The full address of the undersigned is **455 North Rexford Drive, Beverly Hills, CA 90210**
4. The nature of the title of the undersigned is: **In fee.**
5. The full names and addresses of all persons who hold title with the undersigned are:
   None
6. A work of improvement on the property hereinafter described was completed on **February 16, 2021**
7. The name of the contractor, if any, for such work of improvement was
   EXPRESS ENERGY SERVICES, INC.
8. The property on which said work of improvement was completed is in the City of **Beverly Hills,** County of **Los Angeles,** and State of **California**, as is described as:
   THE PURCHASE AND INSTALLATION OF LIGHT EMITTING DIODE (LED) STREET LIGHT FIXTURES TO PRODUCE ENERGY SAVINGS FOR THE CITY OF BEVERLY HILLS
9. The street address of said property is **City of Beverly Hills**

Dated: _____

STATE OF CALIFORNIA } Signature of }
COUNTY OF LOS ANGELES } Owner or Owners } _____

_____, being duly sworn, says: That she is the _____
of the **City of Beverly Hills**, the corporation that executed the foregoing notice as owner of the aforesaid interest or estate in the property therein described; that she makes this verification of behalf of said corporation; that she has read said notice and knows the contents thereof, and that the facts therein stated are true.

Signature of
Corporate Officer
Named Above X _____