

**BOARD OF PUBLIC WORKS  
MEMBERS**

**AURA GARCIA**  
PRESIDENT

**M. TERESA VILLEGAS**  
VICE PRESIDENT

**DR. MICHAEL R. DAVIS**  
PRESIDENT PRO TEMPORE

**VAHID KHORSAND**  
COMMISSIONER

**SUSANA REYES**  
COMMISSIONER

**DR. FERNANDO CAMPOS**  
EXECUTIVE OFFICER

# CITY OF LOS ANGELES

CALIFORNIA



**ERIC GARCETTI**  
MAYOR

**DEPARTMENT OF  
PUBLIC WORKS**

**BUREAU OF  
ENGINEERING**

**TED ALLEN, PE**  
CITY ENGINEER

1149 S. BROADWAY, SUITE 700  
LOS ANGELES, CA 90015-2213

<http://eng.lacity.org>

November 23, 2022

The Honorable Mitch O'Farrell, Chair  
The Honorable Paul Koretz, Vice Chair  
The Honorable Paul Krekorian, Member

Energy, Climate Change, Environmental Justice and River Committee  
Los Angeles City Council

c/o Eric Villanueva  
Office of the City Clerk  
Room 395, City Hall  
Los Angeles, CA 90012

**COUNCIL FILE NO. 22-0530: RELATIVE TO THE BUREAU OF ENGINEERING (BOE) WITH ASSISTANCE OF THE DEPARTMENT OF WATER AND POWER, GENERAL SERVICES DEPARTMENT AND THE CITY ADMINISTRATIVE OFFICE, CONDUCT AN ANALYSIS OF THE ELECTRICAL LOAD AND UPGRADES NEEDED FOR THE ELECTRIC GRID IF ALL CITY FACILITIES WERE FULLY ELECTRIFIED, AND REPORT BACK WITH PARTNERSHIP OPPORTUNITIES WITH ALL CITY AGENCIES RELATED TO COMMERCIAL ELECTRIFICATION.**

**Recommendations:**

1. INSTRUCT the Controller to transfer \$100,000 from the Unappropriated Balance (UB) Fund 100/58, Account No. 580370, Renewable Energy to an existing account in the Engineering Special Services Fund No. 682, Department No. 50, Appropriation Unit 50VVHE for a high-level analysis of the impacts of building electrification on the grid, and partnership opportunities.



Fund	Dept	Appr Unit	Appropriation Description	Amount
682	50	50VVHE	Analysis of the electrical load and upgrades needed for the electric grid if all city facilities were fully electrified, and report back with partnership opportunities with all City agencies related to commercial electrification. <b>CF 21-0530</b>	\$100,000

2. Authorize the City Engineer or designee to make technical corrections to the recommendations in order to effectuate the intent of the City Council.

**COUNCIL FILE NO. 22-0530 states the following in one of three clauses related to the preamble that states, “Much work is needed in order to prepare today's power grid for an electrified city of the future.”**

“I FURTHER MOVE that the Bureau of Engineering, with the assistance of the Department of Water and Power, General Services Department and City Administrative Office, conduct an analysis on the electrical load and upgrades needed for all city and city-proprietary departments, in order to prepare all city buildings and facilities for full electrification and decarbonization, and report back with partnership opportunities with all City agencies related to commercial electrification.”

### **Discussion & Background:**

The City Council in 2021 City passed multiple motions that address the urgency and the opportunities for carbon use reduction through decarbonizing the City's existing building stock. Together, the City Council motions direct City Departments to prioritize building decarbonization of all existing City-owned facilities, including full building electrification, net-zero energy buildings, solar photovoltaic (PV) installations, energy storage installations, electric vehicle charging installations, electric grid renewable energy generation, and similar objectives.

A major step towards decarbonizing City facilities is full building electrification. Full building electrification requires that buildings eliminate the use of fossil fuel powered equipment. This will require switching out all natural gas powered equipment such as Heating, Ventilation, Air Conditioning (HVAC) equipment, water heaters, cooking ranges, and more with all electric equipment. Although this will add additional electrical needs for the buildings, some of the increase in electrical needs will be offset by the energy efficiency of new equipment. Additionally, the City has undertaken planning and implementation of a masterplan for Electric Vehicle Charging Stations (CF 21-0890) in City facilities. This will also create additional electrical loads.

To address the Council's request in C.F. 22-0530, BOE would like to seek the services of a consultant to conduct a high-level study on the potential impacts to the grid of the additional building electrical loads from full building electrification, the installation of

Electric Vehicle Charging stations, and the upgrades to the existing building electrical service for all of the City's existing municipal facilities. A technical report will include a summary of the findings to report back to Council. The BOE is requesting \$100,000 to hire a consultant to produce a White Paper on grid impacts from building electrification for existing City facilities and from the installation of electric vehicle charging equipment.

Respectfully submitted,



ENGINEERING  
Electronically signed by Ted Allen  
on 11/23/2022 12:51 PM  
P.E. License No. 12500

Ted Allen, P.E.  
City Engineer

TA/DW:jgr

BOX\EXE\\_Ready for Signature\TSA\Outbox\Archived\2022\22-0530\_Committee Rpt 1.pdf

cc: Mary Hodge, Office of the Mayor  
Lauren Faber O'Connor, Office of the Mayor  
Marcelino Ascensio, Office of the Mayor  
Michael Samulon, Office of the Mayor  
Yolanda Chavez, Office of the City Administrative Officer  
Patty Huber, Office of the City Administrative Officer  
Sharon Tso, Office of the Chief Legislative Analyst  
Matias Farfan, Office of the Chief Legislative Analyst  
David Giron, Council District 13  
Aaron Ordower, Council District 2  
Teresa Villegas, Board of Public Works  
Martin L. Adams, Los Angeles Department of Water and Power  
Tony Royster, Department of General Services  
Melody McCormick, Department of General Services  
Valerie Melloff, Department of General Services  
Deborah Weintraub, Bureau of Engineering  
Steven Fierce, Bureau of Engineering  
Zohra Akhter, Bureau of Engineering  
Lorraine Moreno, Bureau of Engineering