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MEMORANDUM

TO: Eileen M. Donoghue, City Manager *EMD*

FROM: Christine McCall, Assistant City Manager/DPD Director

DATE: April 5, 2022

SUBJECT: MOTION OF 3/15/22 BY COUNCILOR JENNESS REQUESTING CITY MANAGER PROVIDE A REPORT ON THE CITY'S CURRENT STRATEGIES AND INITIATIVES AROUND THE DEPLOYMENT OF ELECTRIC VEHICLE CHARGERS AROUND THE CITY OF LOWELL

Initiatives Around Electric Vehicle (EV) Chargers around the City of Lowell:

The City of Lowell has incorporated EV charging infrastructure deployment into various planning documents and resolutions.

In the City of Lowell's Sustainable Lowell 2025 Master Plan, public EV charging infrastructure goals include:

- Mobility and Access, Objective 3: Improve Access to and Support a Variety of Options for Sustainable Commuting Practice.
 - Ensure that sufficient infrastructure exists to support a network of electric vehicles including the establishment of electric vehicle charging stations, and home-based charging stations.
- Environmental Resilience, Objective 5: Improve Air Quality and Reduce Carbon Emissions through Energy Efficiency Enhancements and the Adoption of Alternative Fuels.
 - Install publicly accessible electric vehicle charging stations in places such as public parking garages and public parks, and implementing parking incentives for electric vehicles in municipal garages.

On August 31, 2017, the City Council passed a resolution to support a goal of using 100% clean and renewable energy in Lowell building energy use and transportation by 2035. One of the objectives within this resolution was: installing public electric vehicle charging stations.

Progress in Deployment of Public EV Charging Infrastructure:

Over the past 3 years, the City has accelerated its deployment of Level 2 EV charging stations. At the end of FY 19, the City owned and operated 4 Level 2 EV charging stations with 8 ports for charging

at 4 locations. Currently, the City owns and operates 31 Level 2 chargers with 62 ports at 10 locations, with an additional 2 stations under construction. According to the City's Chargepoint dashboard, EV charging at these stations has helped avoid 134,890 kg greenhouse gas emissions, which is the equivalent of planting 3,459 trees and letting them grow for 10 years. Most of the chargers (16 stations) were installed through financial support of National Grid's Electric Vehicle Charging Station Program. This program covered the cost of any infrastructure upgrades needed to enable charging, as well as providing a discount on equipment, and, in some cases, subscription fees. However, this program is now fully subscribed.

Lowell's recent installations (10 stations with 20 ports at the HCID Garage) were funded through the Electric Vehicle Incentive Program (EVIP) grant. This program funds up to 100% of the hardware and installation costs to a maximum of \$50,000 per street address. This program only covers Level 1 and Level 2 chargers.

The City of Lowell has not currently invested in Direct Current Fast Charging (DCFC) charging stations. One of the concerns in greater investment in this type of infrastructure is that current tariffs do not exempt DCFC from facility demand charges. The high cost of such demand charges, particularly for under-utilized stations, can be a significant.

Future Opportunities and Considerations for EV Chargers:

The positive news is that there are future opportunities that should allow Lowell to continue our deployment of EV charging stations.

One of the largest opportunities is currently being adjudicated in the Massachusetts Department of Public Utilities (DPU) case 21-91. This investigation is exploring National Grid's Phase III Electric Vehicle Market Development Program and Electric Vehicle Demand Charge Alternative Proposal. Among other things, the \$96.77 million program proposes:

- Continued support for public and workplace Level 2 charging
- Support for 32 MW of DCFC
- Support for pole-mounted Level 2 charging
- Enhanced support for Low-income and Environmental Justice communities
- Special DCFC rate tariff to help mitigate demand charge concerns for low-utilization stations
- Special funding for DCFC hubs in Environmental Justice communities

If approved, all of these provisions should enhance Lowell's ability to continue to build out our EV charging infrastructure in cost-effective ways.

Additionally, funding from the Bipartisan Infrastructure Law passed last fall should allow for competitive grant opportunities that can supplement Lowell's efforts. According to guidance published by the White House, over the next 4 years, the Department of Transportation will make \$1.25 billion in competitive grants available to install EV charging in locations on public roads, schools, parks, and in publicly accessible parking facilities. Priority will be given to rural areas, low/moderate income neighborhoods, and communities with low ratios of private parking or high ratios of multiunit dwellings.

The Parking Department will continue to work with the Department of Planning and Development's Energy team to monitor and take advantage of these funding opportunities as they arise.

As the City continues to support EV charging infrastructure, I would also recommend looking into modification of policies and ordinances to help recover a portion of the electricity from the EV charging stations, as well as to support maintenance for systems deployed. Over the past year, for example, use from EV charging stations has resulted in 93,104 kWh of electricity use, which translates to around \$16,758 in utility charges.

KM/cmm

Cc: Terrence Ryan, Parking Director
Katherine Moses, Energy Manager