

COUNCIL COMMUNICATION

 CITY OF DES MOINES OFFICE OF THE CITY MANAGER	Number: 22-305	Meeting: June 27, 2022
	Agenda Item: 45B	Roll Call: 22-1023
	Submitted by: Nickolas Schaul, Finance Director	

AGENDA HEADING:

Approving the purchase of one (1) electric replacement refuse truck chassis with a specified collection equipment body for use by the Department of Public Works.

SYNOPSIS:

Recommend approval of the purchase of one (1) electric replacement purpose-built refuse truck chassis with specified solid waste collection equipment installed utilizing Sourcewell purchasing contracts as follows:

One (1) electric truck chassis from Housby Mack Inc., (4747 NE 14th Street, Des Moines, IA 50313, Kelly Housby, President), in the amount of \$428,219, utilizing Sourcewell purchasing contract number 060920-MAK.

One (1) electrically powered automated side loading refuse collection equipment body for the above referenced truck chassis from McNeilus Truck and Manufacturing, (520 Highway, Suite E, Dodge Center, MN 55927, Brad Nelson, President), in the amount of \$276,337 utilizing Sourcewell purchasing contract number 091219-MCN.

FISCAL IMPACT:

Amount: \$704,556

Funding Source: 2022-2023 Operating Budget, Page 80, I201, Equipment Replacement.

ADDITIONAL INFORMATION:

- The recommended purpose-built electric refuse truck chassis is powered by an all-electric, zero tailpipe emission rechargeable battery system. A fully electric heavy-duty truck chassis for refuse collection purposes was evaluated and test driven by Fleet Services and Department of Public Works staff. Initial production units are in service with other agencies after extensive testing of prototype units by the Department of Sanitation, New York City, NY.
- Fleet Services staff recently discussed the operation of the heavy-duty tandem axle Battery Electric Vehicle (BEV) with New York City staff. Results to date after approximately six (6) weeks of operation confirm the unit has viable run time for an eight (8) hour shift at fully loaded capacity of 20,000-pound payload and total Gross Vehicle Weight Rating of 64,000

pounds. Typical battery use for a full day's operation is approximately 40-50% of capacity. Full battery recharge is accomplished with a 4-hour 50-amp 240-volt charger.

- Route simulation applications and software are presently collecting City route data to identify targeted routes to deploy the all-electric automated side loader refuse truck for municipal solid waste and recycling collections. The recommended unit is the second generation of battery powered heavy duty truck chassis and has extended battery run time and life sufficient to meet the needs of most current Solid Waste collection operations.
- As future replacements or additions are considered, heavy duty electric trucks will be evaluated. The capacity for charging infrastructure for heavy duty trucks has been designed into Municipal Services Center Phase 2 plans. This replacement of one (1) automated side loading collection truck was approved by the FOC to maintain the City's current fleet of 38 solid waste collection trucks with the following types of collection equipment as follows:
 - 25 automated side loading (ASL)-scheduled replacement cycle, eight (8) years
 - Six (6) front loading-scheduled replacement cycle, 10 years
 - Six (6) rear loading-scheduled replacement cycle, 10 years
 - One (1) compact semi-automated dual side loading-scheduled replacement cycle, six (6) years.

PREVIOUS COUNCIL ACTION(S):

Date: January 11, 2021

Roll Call Number: [21-0031](#)

Action: Purchases from the following:

- (D) [Housby Mack Inc.](#) (Kelly Housby, President) for three truck chassis, McNeilus Truck and Manufacturing (Brad Nelson, President) for two rear loading refuse collection equipment bodies, Gradall Industries Inc. (Mike Hoverman, President) for one sewer cleaning and maintenance equipment body all per Sourcewell Purchasing Contracts for use by the Public Works Department, \$754,349.32. ([Council Communication No. 21- 008](#)) Moved by Gatto to adopt. Motion Carried 7-0.

BOARD/COMMISSION ACTION(S): NONE

ANTICIPATED ACTIONS AND FUTURE COMMITMENTS: NONE

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