



Date of Memo: April 05, 2024
Current Meeting: April 18, 2024
Board Meeting: April 25, 2024

BOARD MEMORANDUM

TO: Indianapolis Public Transportation Corporation (IPTC) Board of Directors
THROUGH: Interim President/CEO Jennifer Pyrz
FROM: Director of Preventive Maintenance and Repair Thierno Balde
SUBJECT: Consideration and approval of Procurement of a Charge Management System (CMS) for IndyGo’s Battery Electric Bus (BEB) Fleet

ACTION ITEM A – 7

RECOMMENDATION:

In a manner consistent with IPTC contract award standards, we ask the Board to authorize the Interim President/CEO to enter into a contract with The Mobility House (TMH) to provide IPTC with an intelligent charging software solution. The contract is four years with additional option year exercisable at IPTC’s sole discretion for an amount not to exceed \$979,155 with \$699,966.50 (one-time payment), with yearly service maintenance fees of \$93,062.

BACKGROUND:

Operating an electric vehicle fleet requires an efficient charging process to avoid high charging costs due to increased on-peak demand charges triggered by charging vehicles at non-specified times. At IPTC, 40% of charge time is during On-Peak hours leading to high Charging cost.

DISCUSSION:

The contract with TMH will provide IPTC with a software solution to manage the charging of all EV buses in one platform. The solution will integrate EVs and charging station management to ensure operational readiness while substantially decreasing power demand charges. The CMS will be scalable to include different chargers (AC or DC) from various OEMs for the future BEB Fleet and interface with IPTC’s operation software: Hastus, Avail, and Ubisence.

The Project will be implemented in two Phases:

Phase 1: FY2024

- 57 BYD depot Chargers at IPTC’s West Campus
- Inductive Charging station at North College Avenue for The Red Line BRT
- Inductive Charging Station at Ivy Tech Lawrence for the Purple Line BRT

Phase2: FY2025

- Inductive Charging Station at South Madison Station
- Inductive Charging Station at Carson Transit Center Downtown Indianapolis

Optimizing charging through the CMS around the Time of Use tariff will avoid high Demand Charges on peak charges and save between 30% to 70% on utility bills (OPEX savings).

- IPTC’s conservative estimated cost savings is 24% or \$45,760 monthly.
- Estimated ROI in less than three Years. (See Attached CMS Saving File).
- The CMS applies Intelligent algorithms to predict the remaining range of EVs and the SOC required per Route/Block to optimize the BEB operation.

ALTERNATIVES:

The Board could choose not to approve procuring the electric bus charge management system. However, this will directly impact IPTCs effort to provide an effective cost-saving on its E-fleet charging and an opportunity for an efficient operation of its electric bus fleet.

FISCAL IMPACT:

The funding source for this service is from FY2024 Capital Funds.

DBE/XBE DECLARATION:

This contract is locally funded with XBE goals set.

STANDING COMMITTEE DISCUSSION/RECOMMENDATION:

This action will be reviewed by the Finance Committee on April 18, 2024 and will be recommended for the Consent Agenda.