**COMMISSION**
**AGENDA MEMORANDUM** **Item No.** 8e

**ACTION ITEM** **Date of Meeting** September 12, 2023

**DATE:** August 31, 2023

**TO:** Stephen P. Metruck, Executive Director

**FROM:** Keri Stephens, Director, Aviation Facilities and Capital Programs
Eileen Francisco, Director, Aviation Project Management

**SUBJECT: Utility Meter Networking (CIP# C801240) – Design Authorization**

| | |
|---|---|
| **Amount of this request:** | $4,200,000 |
| **Total estimated project cost:** | $35,525,000 |

## ACTION REQUESTED

Request Commission authorization for the Executive Director to (1) prepare design and construction bid documents for the Utility Meter Networking project. The amount of this request is $4,200,000 for an estimated total project cost not to exceed $35,525,000.

## EXECUTIVE SUMMARY

The Port of Seattle (Aviation campus) has approximately 800 meters located throughout the campus. Most of these meters do not meet updated code requirements. This project will replace many of the old and failing electric meters throughout the Aviation campus with the new standard electric meters. Additionally, this project will network all the meters to a software solution that will read and store data from the meters. New meters and networking will allow the Port to meet current code requirements and the Facilities and Infrastructure Utility Manager can bill tenants as needed and can assist in the verification of the total energy demand of the airport.

## JUSTIFICATION

The Port of Seattle (Aviation campus) currently does not meet code requirements for electrical meter data analysis, load, and demand evaluation. This project will satisfy the revised Washington State Energy Code (WEC 2018, C409), Clean Building Performance Standard, and Institute of Electrical and Electronics Engineers (IEEE) code 1547. Additionally, this project updates many electrical meters to a new standard, resulting in improved performance across the Sea-Tac Airport campus. The new meters will help to ensure a stable and reliable power distribution system by providing staff with the necessary tools to perform more effective diagnostics and troubleshooting when power quality events occur. The improved meters and

system will also help staff target and prioritize energy efficiency improvements in support of the Port's Century Agenda goal to be the greenest, most energy efficient port in North America.

***Diversity in Contracting***

The design services will be completed using a new project specific designer which has a 15% WMBE aspirational goal in association to this design effort.

**DETAILS**

***Scope of Work***

Replace and network old and failing electric meters throughout the Aviation campus.

(1) The meters will be replaced (approximately 800 meters) with the Eaton PXM series meters.
   a. Project specific designer will be competitively procured to get design portion of work done.
   b. All locations are unique and will be a different design/construction based off existing field conditions.

(2) Meters will also be networked into the existing Port of Seattle infrastructure.
   a. New switches and fiber will need to be installed to connect some of the new meters into the Port of Seattle network.

***Schedule***

| | |
|---|---|
| Commission design authorization | Q3 2023 |
| Design start | Q3 2024 |
| Design complete | Q1 2026 |
| Commission authorization for construction | Q1 2026 |
| Construction award | Q2 2026 |
| Substantial completion | Q1 2028 |

| ***Cost Breakdown*** | This Request | Total Project |
|---|---|---|
| Design | $4,200,000 | $4,350,000 |
| Construction | 0 | $31,175,000 |
| Total | $4,200,000 | $35,525,000 |

**ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1** – Status Quo. Do not proceed with project.

Cost Implications: Expense approximately $100,000 for notebook development costs.

Pros:

(1) Delays or defers capital investment.

Cons:

(1) Doesn't update meters to meet current code requirements and pushes work off to the future.
(2) Meters currently installed do not have easy replacements available, resulting in large maintenance costs.
(3) Data analysis of current meters are cumbersome for billing and power quality evaluations.

This is not the recommended alternative.

**Alternative 2** – Replace and network meters within the status 2 budget.

Cost Implications: $35,525,000 in capital costs.

Pros:

(1) Provides networking for data analysis, load, demand evaluation, and usage billing for tenants.
(2) Makes meters code compliant (WEC 2018, Clean Building Performance Standard, and IEEE 1547).
(3) Meters will be easier to maintain being from one manufacturer.

Cons:

(1) Capital costs.

**This is the recommended alternative.**

## FINANCIAL IMPLICATIONS

| ***Cost Estimate/Authorization Summary*** | Capital | Expense | Total |
|---|---|---|---|
| **COST ESTIMATE** | | | |
| Original estimate | $35,525,000 | $0 | $35,525,000 |
| **AUTHORIZATION** | | | |
| Previous authorizations | $150,000 | 0 | $150,000 |
| Current request for authorization | $4,200,000 | 0 | $4,200,000 |
| Total authorizations, including this request | $4,350,000 | 0 | $4,350,000 |
| Remaining amount to be authorized | $31,175,000 | $0 | $31,175,000 |

### *Annual Budget Status and Source of Funds*

This project C801240 was included in the 2023-2027 capital budget and plan of finance with a budget of $35,525,000. The funding sources will be the Airport Development Fund and revenue bonds. This project will be presented to the airlines at an Airport Airlines Affairs Committee and the Majority in Interest (MII) ballot in Q3 2024.

***Financial Analysis and Summary***

| | |
|---|---|
| Project cost for analysis | $35,525,000 |
| Business Unit (BU) | Terminal Building |
| Effect on business performance (NOI after depreciation) | NOI after depreciation will increase due to inclusion of capital (and operating) costs in airline rate base. |
| IRR/NPV (if relevant) | N/A |
| CPE Impact | $0.09 in 2028 |

***Future Revenues and Expenses (Total cost of ownership)***

As a result of this project, Aviation Maintenance may see a small increase in preventative maintenance support.

**ATTACHMENTS TO THIS REQUEST**

(1) Presentation Slides

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

None