



**COMMISSION
AGENDA MEMORANDUM**

Item No. 8d

ACTION ITEM

Date of Meeting March 28, 2023

DATE: March 9, 2023

TO: Stephen P. Metruck, Executive Director

FROM: Kelly Purnell, Capital Project Manager
Trevor Panger, Real Estate Property Manager
Kenneth Lyles, Director of Maritime Operations and Security

SUBJECT: Maritime Industrial Center Electric Equipment Procurement

Amount of this request: \$1,800,000

Total estimated project cost: \$6,780,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to execute contract(s) for long-lead major electrical equipment for the Maritime Industrial Center Electrical Infrastructure Replacement project. This authorization is for \$1,800,000 of a total estimated project cost of \$6,780,000. (CIP# C801241)

EXECUTIVE SUMMARY

This project will replace the electrical infrastructure at the Maritime Industrial Center (MIC). The site, located just west of Fishermen’s Terminal, currently has a tenant mix of storage, warehouse, maintenance and repair shops, boatyard and marine services, and fishing vessel support operations. A large majority of the electrical infrastructure that serves the tenants is approximately 25 years old. Though electrical systems generally last 20 to 30 years, their proximity to seawater has caused it to deteriorate at an expedited rate. An arc flash study and condition assessment were performed on the property in 2020 and determined that several pieces of equipment need replacement for safety reasons as they are not compliant with National Electrical Code (NEC) standards and are too dangerous to service properly.

The replacement of the infrastructure is critical to maintaining reliable and resilient electrical service to the MIC facilities, ensure that the Port meets its tenant obligations, and continues to leverage the economic opportunities that result in well managed and maintained assets. To not further delay this essential work, early purchasing of large electrical equipment is necessary due to extensive long-lead times for procuring the equipment.

Meeting Date: March 28, 2023

JUSTIFICATION

This project supports the following Century Agenda and Maritime Division strategic goals:

Century Agenda:

1. Responsibly Invest in the Economic Growth of the Region and All Its Communities.
2. Be a Highly Effective Public Agency.

Maritime Division:

1. Asset Management.
2. Sustainability.

The project will include necessary upgrades to the electrical system by replacing current equipment that is dangerous to work on and at risk of failure. This investment will increase the asset value of the MIC by ensuring that the site facilities are functioning well and efficiently, removing dangerous water intrusion into electrical areas, and increasing the reliability of power to the Port’s tenants. Additionally, the upgraded electrical equipment will provide electrical capacity for future sustainable EV charging capabilities and potential additional shore power that is not currently available with the existing equipment.

Purchasing the equipment in advance of construction contracting will mitigate risks to the project schedule due to long-lead times in electrical equipment procurement times, currently estimated between 72 and 85 weeks.

Diversity in Contracting

WMBE aspirational goals have not been established for purchasing of the electrical equipment. The procurement of the equipment from available suppliers will be very prescriptive and based on technical credentials and performance. WMBE goals will be established for the larger general construction contract that will be solicited when the project is ready to be constructed.

DETAILS

Maritime Industrial Center – 2700 Commodore Way, Seattle, WA 98199

The Maritime Industrial Center (MIC) is a 6.43-acre facility acquired from the US Coast Guard in 1993 and has since been an important addition to the Port’s infrastructure for supporting the commercial fishing and industrial maritime sectors in our region and beyond. The property currently serves as a base for a range of private- and public-sector uses, from: fishing vessel provisioning, maintenance and repair; boatyard operations; and a new informal hub for a state agency.

Meeting Date: March 28, 2023

Tenant Mix:

Building A-1:

- Mix of office, warehouse, storage, and industrial uses, to include vessel repair and maintenance shops, silk screen printing, retail product distribution, and boatyard operations, and fishing sustainability efforts.

Building A-2, yard and West Dock moorage:

- Boatyard and marine services (metal fabrication, woodwork, heating and cooling, electronics)

Building A-3, A-4, A-5, yard and East Pier moorage:

- Fishing vessel support operations

West Pier and Central Pier:

- Fishing vessel moorage, tribal vessel moorage

The project scope consists of demolishing existing switchboards and structural concrete pads; decommissioning conduits and wire; and replacing all with new structural infrastructure, conduits, wires, switchboards, and associated equipment. The switchboards will be upsized from existing capacity of between 400 and 600 amps to 1200 amps for the smaller switchboards and from 2500 Amps to 4000 Amps for the main switchboard for future capacity needs (e.g., EV chargers, shore power). This project will not increase the electrical load at the site at this time. The estimated electrical equipment procurement is \$1,800,000 with total estimated project costs of \$6,440,000. Funding for this project was included in the 2023 capital budget and plan of finance.

Scope of Work

The following electrical equipment will be replaced:

1. Switchboard 4SP and 2SPN (service entry to site)
2. Switchboard 4W and 2W (wharf)
3. Switchboard 4P and 2P (NE side of Building A-1)
4. Switchboard EY4 (east side of Building A-1)
5. Switchboard SEY4 (lighting connection for east lot)
6. Switchboards EY4 and SEY4 will be consolidated with 4P and 2P in one location that has better access. Additionally, this will eliminate a stormwater intrusion point at EY4.

Site work:

1. Provide new conduits and conductors from Seattle City Light to new MIC main distribution switchgear.
2. Provide new conduits and conductors from new MIC main distribution switchgear to:
 - a. New electrical switchboard at Mooring Pier
 - b. New electrical switchboard at Wharf
3. Provide new electrical vaults.

Meeting Date: March 28, 2023

The following equipment will be purchased in advance per this authorization:

1. New main electrical distribution
 - A. Main switchgear, switchboards including main circuit breakers and feeder circuit breakers, transformer.
2. New electrical distribution at mooring pier
 - A. Switchboards including main circuit breaker and feeder circuit breakers, transformer.
3. New electrical distribution at wharf
 - A. Switchboards including main circuit breakers and feeder circuit breakers, transformer.

Schedule

Activity

Commission design authorization	October 11, 2022
Design start	2022 Quarter 4
Commission authorization for major electrical equipment procurement	2023 Quarter 1
Commission construction authorization	2024 Quarter 3
Construction start	2024 Quarter 4

Cost Breakdown

	This Request	Total Project
Design	\$0	\$850,000
Electric Equipment	\$1,800,000	\$1,800,000
Construction	0	\$4,130,000
Total	\$1,800,000	\$6,780,000

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Require electrical equipment to be procured by general contractor.

Cost Implications:

- Additional \$2.3M overall project cost (due to additional escalation and GC markup on equipment).
- Total estimated project cost \$9.1M.

Pros:

- (1) Transfers risk to the contractor.
- (2) Advances Century Agenda goals and Maritime Division strategic goals.

Cons:

- (1) High likelihood of causing project delays due to estimated 72-85 week procurement lead times for electrical equipment.

Meeting Date: March 28, 2023

- (2) Potential for longer equipment design duration due to Port quality control process.
- (3) More expensive due to overheads applied to the equipment purchase.

This is not the recommended alternative.

Alternative 2 – Defer project as a whole: maintain the current state and delay electrical upgrades and repairs.

Cost Implications:

Assuming a 6% escalation is applied to the project over the next four years delaying the project would cost an additional \$250,000 for each year it is delayed. Current maintenance has been minimal, and the equipment cannot be safely worked on by Port Electricians; therefore, costs to maintain are not included.

Pros:

- (1) Deferred initial capital cost.

Cons:

- (1) The equipment cannot currently be serviced safely.
- (2) The equipment is already in a state of advanced disrepair due to the proximity to saltwater and areas of stormwater intrusion.
- (3) If the equipment fails, a long-term diesel generator will be required to provide power to building tenants and moorage customers. This will impact air quality and cost significantly more over time, in large part due to high fuel costs.

This is not the recommended alternative.

Alternative 3 – Early equipment procurement in advance of construction contract.

Cost Implications:

- No additional escalation and GC mark-up on electrical equipment (savings of \$2.3M).
- Overall project cost estimated at \$6.78M.

Pros:

- (1) Minimizes potential construction delays due to long-lead electric equipment procurement.
- (2) Significantly less expensive due to escalation and GC mark-up avoidance.
- (3) Allows for very prescriptive control of equipment procurement.
- (4) Advances Century Agenda goals and Maritime Division strategic goals.

Cons:

- (1) Maintains Port risk if equipment is delayed or damaged during delivery.
- (2) May require temporary storage of equipment if procurement times come down.
- (3) Adds some complexity to timing GC construction contract procurement.

This is the recommended alternative.

Meeting Date: March 28, 2023

FINANCIAL IMPLICATIONS

<i>Cost Estimate/Authorization Summary</i>	Capital	Expense	Total
COST ESTIMATE			
Original estimate	\$1,500,000	\$0	\$1,500,000
Revised estimate	\$6,780,000	\$0	\$6,780,000
AUTHORIZATION			
Previous authorizations	\$850,000	\$0	\$850,000
Current request for authorization	\$1,800,000	\$0	\$1,800,000
Total authorizations, including this request	\$2,650,000	\$0	\$2,650,000
Remaining amount to be authorized	\$4,130,000	\$0	\$4,130,000

Annual Budget Status and Source of Funds

This project was included in the 2023 Capital Plan under CIP #801241 Maritime Industrial Center Electrical Infrastructure Replacement at an estimated total project cost of \$6,413,000.

This project will be funded by the General Fund.

Financial Analysis and Summary

Project cost for analysis	\$6,780,000
Business Unit (BU)	Maritime Portfolio Management
Effect on business performance (NOI after depreciation)	The project will maintain annual gross revenue over \$500K from MIC tenants. Depreciation will increase by \$135,600 per year, thereby reducing the NOI by the same amount.
IRR/NPV (if relevant)	No incremental revenue. The NPV is the present value of the project cost.
CPE Impact	N/A

Future Revenues and Expenses (Total cost of ownership)

This project will provide for reliable and resilient electrical power to the MIC facilities for the next 25-30 years. This upgrade will provide protection of Port assets and extend their useful life, provide for additional future electrical capacity to support Port sustainability goals, and increase economic development potential. Maintaining existing assets will preserve the economic vitality of our operations and serve the Port, tenants, and their customers well by providing a safe and sustainable working environment.

ADDITIONAL BACKGROUND

None.

Meeting Date: March 28, 2023

ATTACHMENTS TO THIS REQUEST

- (1) Presentation slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

October 11, 2022 – The Commission authorized design.