

**THE NORTHWEST SEAPORT ALLIANCE**  
**MEMORANDUM**

**MANAGING MEMBERS**  
**ACTION ITEM**

**Item No.** 9B  
**Date of Meeting** May 2, 2022

**DATE:** April 21, 2022

**TO:** Managing Members

**FROM:** John Wolfe, CEO

**Sponsor:** Jennifer Maietta, Director, NWSA Real Estate

**Project Manager:** Arthur Kim, Capital Project Manager, Port of Seattle

**SUBJECT:** T46 Substation No. 1 Replacement Project

**A. ACTIONS REQUESTED**

**1. For NWSA Managing Members to vote:**

- a. As referenced in NWSA Resolution No. 2020-02, Master Policy, Paragraph 8.c.iv, Managing Member authorization is required to perform alternative public works.

Request authorization to use design-build as an alternative to design-bid-build for the T46 Substation No. 1 Replacement Project, Master Identification No. U00671

- b. As referenced in NWSA Resolution No. 2020-02, Exhibit A, Delegation of Authority Master Policy, Paragraph 8.c.iii., states project costs exceeding \$300,000 require approval from Managing Members.

Request Managing Members of The Northwest Seaport Alliance authorization for the Chief Executive Officer or their delegate to approve the total costs not to exceed \$6,700,000, 20% of which is to be allocated to the Port of Seattle for the replacement of Substation No. 1 located on Terminal 46 servicing both areas of Terminal 46 licensed to the NWSA and the Terminal 46 North Pier under Port of Seattle management, Master Identification No. U00671.

**2. For Port of Seattle Commission only to vote:**

- a. Request Port of Seattle Commission authorization for the Executive Director or their delegate to approve 20% of the total costs not to exceed \$1,340,000 for reimbursement to the NWSA for the replacement of

Substation No. 1 located on Terminal 46 licensed to the NWSA and the Terminal 46 North Pier under Port of Seattle management, Master Identification No. U00671.

## **B. SYNOPSIS**

Seattle City Light's (SCL)'s North Transformer and NWSA's Substation No. 1 at Terminal 46 is unsafe due to its current condition and does not meet National Electrical Code requirements rendering it unserviceable. It needs to be replaced or risk failure. Utilizing a design-build contract, the approximately 25-year-old Substation No. 1 at Terminal 46 will be replaced in coordination with the City's SCL transformer replacement project to reduce interruptions to terminal operations and streamline construction execution and costs. To minimize interruption of power and the need for temporary power at Terminal 46, the new substation will be installed in parallel to the existing one before the old substation is removed.

The total cost of the Substation No. 1 replacement will be shared 80% by the NWSA and 20% by the Port of Seattle. Substation No.1 services both Terminal 46 licensed to the NWSA and the Terminal 46 North Pier (aka "Pier 46") which is managed by the Port of Seattle. The NWSA will pay up front for the project and then be reimbursed by POS for 20% of the total cost accordingly.

## **C. BACKGROUND**

Existing Substation No. 1 at Terminal 46 was installed over 25 years ago. The substation supports the Administration Building, Terminal 46 North Yard lighting, the Maintenance and Repair Building, Receiving Gate Precheck, USDA Inspection Platform, Stormwater System, and North Sewer Lift Station and the adjacent Terminal 46 North Pier (aka "Pier 46" a POS managed property). With the termination of the Total Terminal's lease, maintenance and repair responsibilities of the Terminal including the terminal substations shifted from the former tenant to the NWSA effective January 1, 2020.

As of January 1, 2020, the Cruise ILA commenced. Subsequently, the condition of the substation was brought to the NWSA staff's attention while considering this substation for an upgrade related to the potential cruise facility development (now indefinitely on-hold). NWSA Staff requested a review of the substation by the POS Electrical Engineering department as a result. Based on a Port of Seattle Engineering department internal memo dated July 7, 2020, the electrical equipment is nearing its service life, it is not safe to maintain service, and the equipment does not meet National Electric Code requirements.

The Substation No. 1 replacement will be an in-kind replacement with the same volt and amperage capacity. The substation has a 480-volt 3,000-amp capacity of which

600 amps are dedicated to Pier 46 equal to 20% of the total capacity. The remaining amperage that services Terminal 46, licensed to the NWSA, is equal to 80% of the total capacity. The replacement of Substation No. 1 is also necessary to accommodate the future North Pier 46 Replacement project which includes adding a new feeder and installation of equipment. It is important to note that additional Terminal 46 operational electrical capacity requirements, such as shore power and electrification of equipment, will be addressed with the South Substation No. 2 upgrade required in the relatively near future.

If the substation fails it will need to be replaced immediately, or risk shutting down a significant part of Terminal 46 operations that require power. Alternatives were reviewed with Port of Seattle Engineering and Marine Maintenance to determine if there were options to connect to other Seattle City Light power sources in the case of an emergency failure. It was determined that there were no viable options. The costs to run a terminal on emergency backup power are high and can be avoided if the substation is replaced before failure of the substation.

Seattle City Light will be replacing their SCL Transformer servicing Terminal 46 as the City's equipment is past its service life. The new transformer, like the current one, will be low voltage and will prolong the life of the terminal's electrical assets by 30+ years. The new transformer will be installed concurrently with the new substation No. 1.

This project will utilize the design-build methodology to expedite delivery of this project and reduce the risk of power failure at Terminal 46. Design-build will allow long lead time parts to be ordered earlier in the process and reduce overall project delivery time.

## **D. PROJECT DESCRIPTION AND DETAILS**

This project will:

- Replace an aging, unserviceable, and unsafe substation to meet Safety and National Electric Code requirements.
- Provide continuity of operations for Terminal 46 and support the Port of Seattle Pier 46 operational upgrades
- Address electrical requirements in a timely, cost-effective manner

### ***Project Objectives***

- Replace an aging, unserviceable, and unsafe substation at Terminal 46 in a timely manner to prevent inevitable failure.
- Coordinate project with Seattle City Light's new transformer to reduce the time and the need for temporary power.
- Prevent a major power disruption at Terminal 46.

**Scope of Work**

The design-build contract for construction includes the following major scope of work elements:

- Engineers to develop initial basis of design and performance specifications (POS)
- Design (Contractor)
- Permitting (Contractor)
- Substation equipment procurement (Contractor)
- On-site substation related construction and installation of new permanent electrical equipment (Contractor)
- Permanent substation electrical power connection and temporary substation power disconnection (Contractor, POS, and SCL)
- Demolition and removal of the old substation (Contractor)

**Schedule**

Design-Build methodology will allow electrical materials with long lead times to be ordered earlier during the project delivery process to help condense the overall schedule. Major milestones for Design-Build:

RFQ Issued – Advertise	June 27, 2022
RFP Issued – Advertise	September 14, 2022
Proposals Due	November 14, 2022
Notification of Intent to Award	January 13, 2022
Design-Build Construction Completed	July 9, 2024

**E. FINANCIAL IMPLICATIONS**

**Project Cost Details**

	This Request	Total Project Cost	Cost to Date	Remaining Cost
Procurement	\$ 100,000	\$ 100,000	\$ -	\$ 100,000
Pre-Design	\$ 250,000	\$ 250,000	\$ 75,000	\$ 175,000
Design & Construction	\$ 6,350,000	\$ 6,350,000	\$ -	\$ 6,350,000
<b>Total NWSA (80%)</b>	<b>\$ 5,360,000</b>	<b>\$ 5,360,000</b>	<b>\$ 60,000</b>	<b>\$ 5,300,000</b>
<b>Total POS (20%)</b>	<b>\$ 1,340,000</b>	<b>\$ 1,340,000</b>	<b>\$ 15,000</b>	<b>\$ 1,325,000</b>
<b>Total Project Cost</b>	<b>\$ 6,700,000</b>	<b>\$ 6,700,000</b>	<b>\$ 75,000</b>	<b>\$ 6,625,000</b>

**Source of Funds**

The current Capital Investment Plan (CIP) Budget allocates \$3,269,000 for this project. The budget will be updated during the 2023 budget process.

***Financial Impact***

Project costs net of the POS portion will be capitalized and depreciated over an estimated useful life of 20 years, resulting in annual depreciation expense of approximately \$268,000. This project is necessary to support any potential maritime cargo related long lease of T46. The estimated revenue of a partial lease of T46 is estimated between \$5 million and \$10 million dollars per year. Actual results will depend on negotiations with the future tenant(s).

The Port of Seattle will depreciate their 20% of the cost assuming a 20-year depreciable life resulting in an annual depreciation of approximately \$67,000 per year.

**F. ENVIRONMENTAL IMPACTS/REVIEW**

Permitting:

- SEPA Review (Port)
- L&I Certification for prefabricated building/enclosure (Contractor obtains permit)
- City of Seattle Construction Permit (Contractor obtains permit as deferred submittal)
- City of Seattle Electrical Permit (Contractor obtains permit as deferred submittal)

**G. ATTACHMENTS TO THIS REQUEST**

- PowerPoint presentation.

**H. PREVIOUS ACTIONS OR BRIEFINGS**

<u>Date</u>	<u>Action</u>	<u>Amount</u>
June 8, 2021	Executive Authorization	\$100,000.00
<b>TOTAL</b>		<b>\$100,000.00</b>