

THE NORTHWEST SEAPORT ALLIANCE
MEMORANDUM

MANAGING MEMBERS
ACTION ITEM

Item No. 8B

Date of Meeting March 15, 2022

DATE: March 2, 2022

TO: Managing Members

FROM: John Wolfe, CEO

Sponsor: Tong Zhu, Chief Commercial & Strategy Officer

Project Manager: Tim Leonard, POS Capital Project Manager V

SUBJECT: T30 Central Substation Replacement construction authorization increase

A. ACTION REQUESTED

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 additional construction authorization in the amount \$1,250,000, for a total authorized amount of \$7,450,000, for work associated with the T-30 Central Substation Replacement, Master Identification Nos. U00660 (Capital) and U00661 (Expense).

B. SYNOPSIS

As part of the prior construction funding request approved by the Managing Members on December 7, 2021, the Terminal 30 Central Substation failed and caused a power outage to a significant portion of the Terminal 30 yard and portions of Terminal 25, which is jointly known as "T30" (including refrigerated containers; T-25 Maintenance and Repair shop, Port of Seattle (POS) police station building, guard shack, yard lighting, and other miscellaneous infrastructure elements). General repairs to the substation were determined to be infeasible due to the age of the equipment and degree of damage incurred as a result of the failure event. Rental diesel generators were immediately procured, and power was restored to the terminal on December 1, 2020.

A Declaration of Emergency was subsequently issued by the NWSA on December 8, 2020, and a project was begun to enable staff to secure a longer-term temporary generator procurement, hire a Contractor to perform a root cause analysis of the substation's failure, and perform the planning necessary to determine a long-term solution in replacing the substation.

When the substation failed, NWSA immediately notified the tenant of its obligations under the Lease to maintain and repair the substation, to include replacement. The tenant has disputed responsibility for replacement of the substation. The parties are mid-dispute resolution process to determine the financial responsibility relative to this substation failure but have not

yet come to agreement. Additional research into the parties' prior dealings (including prior to formation of the NWSA) needs to be completed to fully assess each party's responsibility for this work. NWSA has reserved all rights to dispute the financial responsibility for the replacement of the substation, and discussions between the parties will continue in order to determine financial responsibility. Though responsibility has not yet been resolved, permanent power needs to be restored to the terminal while these discussions continue. NWSA is leading this replacement project under the reservation of rights with the tenant so the work may be completed and so Terminal 30 remains operational.

Upon authorization of design funding on April 6, 2021, staff completed the design, permitting, procurement, and installation of a temporary substation to replace the generators and provide interim power until a permanent substation can be constructed. Staff also completed the design, SEPA process, and preparation of bid documents for the construction of a permanent replacement substation to return Terminal 30 to full permanent power and terminate the need for the rental of the temporary substation equipment currently in operation.

Update: Since the December 7, 2021, construction funding approval, a request for construction bids was advertised and the six submitted bids were opened on February 9, 2022. All six bids, ranging in amounts from \$3,088,000 to \$4,632,317, exceeded the Engineer's construction estimate of \$2,517,000. Sundancer Electric Inc., the lowest bidder, withdrew their bid citing estimation errors by their firm. The lowest subsequently verified bid, received from Dutton Electric Company, Inc., is in the amount of \$3,460,000. Staff has determined that this estimate exceedance is acceptable and primarily reflects the current volatility in construction market resulting in higher material costs, longer lead times for equipment procurement, and a longer estimated construction duration for the project.

C. BACKGROUND

The purpose of the Terminal 30 Central Substation project has been to restore interim electrical power to the terminal, lost due to the Central Substation failure, as well as implement a long-term solution by replacing the damaged electrical equipment with a new substation. This request is to complete the final phase (#4) listed below: the construction of a replacement substation to restore full permanent power to Terminal 30. All actions required as part of this electrical power restoration effort have been, and will continue to be, implemented in coordination with SSAT to ensure that operational disruptions are minimized to the extent possible.

1. Temporary Generators – COMPLETED

A new leased diesel generators procurement was executed through the POS in January 2021 to secure the necessary temporary generators, including all required maintenance services, to provide temporary power to T30 and enable full tenant operations. This procurement led to a contract at a more competitive cost than the initial emergency procurement completed by POS Maritime Maintenance. SSAT fueled the generators at their cost and POS staff performed coordination with the vendor (Herc Rentals) and on-site assistance as required. Additionally, rented diesel air compressor equipment was temporarily secured by POS for SSAT's use to reduce the total electrical load required in the T-25 M&R Building's shop. The need for temporary diesel generators has now been alleviated by the installation of a temporary substation (see #3 below) and all generators

were disconnected and removed from T30 on 9/02/21. All costs associated with this temporary power effort have been charged against the expense project.

2. Substation Failure Root Cause Analysis – COMPLETED

Western Electrical Services, an electrical contractor, performed an on-site analysis of the failed Terminal 30 Central Substation's equipment, including a determination of the root cause of failure, and testing of the associated infrastructure elements for future ongoing use. Results of this analysis have been factored into the design of the permanent substation replacement. The analysis determined that the failure was due to lack of ongoing maintenance.

3. Temporary Substation – COMPLETED (and currently In operation)

The temporary substation is an expense project cost, and its installation has now alleviated the need for leased diesel generators. This temporary power source is both less expensive and more reliable than the prior generators as it is connected to Seattle City Light's power feed. It consists of enclosed electrical switchgear that is located adjacent to the existing Central Substation and will continue to provide the power required at Terminal 30 until a permanent replacement substation is constructed. Required on-site infrastructure improvements (electrical cable replacement, conduit trenching, protective barriers/fencing, etc.) were constructed by Port Construction Services, with assistance by POS Maintenance, and the power feed reconnection was completed by Seattle City Light (SCL).

4. Permanent Substation Replacement

POS staff have completed the design; SEPA review process; preparation of construction bid documents; bid advertisement and opening of submitted bids for the proposed replacement T30 Central substation. The new substation will provide power to the same Terminal 30 infrastructure elements as the prior substation, but the completed design includes an upgrade of the substation's electrical medium voltage equipment to 15 KV from the prior substation's 5 KV capacity. This reserve capacity increase, estimated to be an additional incremental construction cost of approximately \$30,000, will provide electrical capacity for potential future overall Terminal 30 electrical infrastructure system upgrades, including shore power.

Update: This additional authorization request is for the construction of the permanent substation and is based on the lowest verified bid received which exceed the Engineer's construction estimate. Construction of the replacement substation is now anticipated to be completed in Q2 2023 due to ongoing market volatility and resultant expected delays in equipment procurement (to be completed by the Contractor).

Scope of Work

The remaining project effort, the construction of a permanent substation replacement, includes the following major scope of work elements:

Permanent Substation Replacement

- Construction award (POS)

- Electrical and construction permits procurement (Contractor)
- Substation equipment procurement (Contractor)
- On-site substation related construction and installation of new electrical equipment (Contractor)
- Permanent substation electrical power connection and temporary substation power disconnection (Contractor, POS, and SCL)

Schedule

Major temporary and permanent power milestones:

Activity	Timeframe
Temporary substation design completed	March 2021
Temporary substation construction completed and reconnected to SCL power feed	September 2021
Permanent substation design completed	November 2021
Permanent substation construction authorization	December 2021
Permanent substation construction bid advertisement	December 2021
Permanent substation construction bid opening	February 2022
Permanent substation additional construction authorization	March 2022

Proposed Permanent Substation Construction Dates:

Issue Notice to Proceed	May 2022
Final construction completion	June 2023

D. FINANCIAL IMPLICATIONS

Project Cost Details

The estimated total cost of expense project U00661 (Temporary Power) has not increased from the \$1,850,000 presented as part of the December 7, 2021, construction funding request.

The estimated total cost of capital project U00660 (Permanent Power) has increased to \$5,600,000 from \$4,350,000 previously presented as part of the December 7, 2021, construction funding request.

	This Request	Estimated Total Project Cost	Cost to Date	Estimated Remaining Cost
U00661 Expense Project				
Temporary Generators Rental & Coordination	\$0	\$910,000	\$910,000	\$0
Temporary Substation Design & Construction	\$0	\$550,000	\$490,000	\$60,000
Temporary Substation Equipment Rental	\$0	\$390,000	\$100,000	\$290,000
Subtotal:	\$0	\$1,850,000	\$1,500,000	\$350,000
U00660 Capital Project				
Substation Failure Analysis	\$0	\$15,000	\$15,000	\$0
Permanent Substation Design & SEPA Permit	\$0	\$350,000	\$335,000	\$15,000
Permanent Substation Permitting & Construction	\$1,250,000	\$5,235,000	\$20,000	\$5,215,000
Subtotal:	\$1,250,000	\$5,600,000	\$370,000	\$5,230,000
Total:	\$1,250,000	\$7,450,000	\$1,870,000	\$5,580,000

Source of Funds

The current Capital Investment Plan (CIP) allocates \$4,350,000 for U00660 substation replacement (capital) and \$1,850,000 for U00661 temporary power (expense). Operating expenses associated with this project will be funded through NWSA operating cash generated by normal operations. The CIP will be updated during the 2023 budget process to incorporate the increase. Capital investments will be funded by the home ports through the normal capital funding process.

Financial Impact

Project costs for U00660 (capital) will be capitalized and depreciated over an estimated useful life of 50 years, resulting in annual depreciation expense of approximately \$112,000. Project costs for U00661 (expense) will be expensed as incurred. The current budget includes \$87,000 per year in depreciation starting January 2023. This will be updated to \$112,000 per year beginning in July 2023 during the 2023 budget process.

T30 provides over \$9.5 million in revenue to the NWSA annually. Replacement of the failed substation is required to maintain that level of revenue. The 2021 Forecast/2022 Budget included expenses associated with the temporary power of \$700,000 in 2021 and \$200,000 in 2022.

E. ENVIRONMENTAL IMPACTS/REVIEW

Permitting: A SEPA review has been completed and a Determination of Non-significance has been published. City of Seattle Construction and Electrical permits will be required and will be obtained by the Contractor.

Remediation: N/A

Stormwater: A stormwater review will be required as part of the City's Construction permit review process due to the proposed ground disturbance area amount exceeding the minimum code threshold.

Air Quality: N/A

F. ATTACHMENTS TO THIS REQUEST

- Slide presentation.

G. PREVIOUS ACTIONS OR BRIEFINGS

<u>Date</u>	<u>Action</u>	<u>Amount</u>
December 8, 2020	Declaration of Emergency	\$1,000,000
February 2, 2021	Project Status Briefing	\$0
April 6, 2021	Managing Members Design Authorization	\$1,800,000
December 7, 2021	Managing Members Construction Authorization	\$3,400,000
TOTAL		\$6,200,000