

THE NORTHWEST SEAPORT ALLIANCE
MEMORANDUM

MANAGING MEMBERS
ACTION ITEM

Item No. 8C
Date of Meeting April 6, 2021

DATE: March 24, 2021

TO: Managing Members

FROM: John Wolfe, CEO

Sponsor: Tong Zhu, Chief Commercial Officer & Chief Strategy Officer

Project Manager: Tim Leonard, Capital Project Manager, POS

SUBJECT: T-30 Substation Replacement Project

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 project authorization in the amount \$1,800,000, for a total authorized amount of \$2,800,000, for work associated with the T-30 Substation Replacement Project, CIP Nos. U00660 (Capital) and U00661 (Expense).

B. BACKGROUND

As previously reported, on November 29, 2020, the Terminal 30 Central Substation failed and caused a power outage to a significant portion of the Terminal 30 yard (including refrigerated containers; T-28 M&R shop, Port of Seattle (POS) police station building, guard shack, yard lighting, and other miscellaneous infrastructure elements). A visual inspection of the failed substation, completed by POS staff on November 30th, found extensive equipment damage and general repairs were determined not to be feasible 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 by POS Marine Maintenance, connected on-site, and power was restored to the terminal on December 1, 2020.

A Declaration of Emergency was subsequently issued by the NWSA on December 8, and an expense project (\$850K initial budget) and a capital project (\$150K initial budget) were created 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. Additionally, the NWSA commenced discussions with the tenant, SSAT, to determine roles and responsibilities relative to this substation failure.

Since the project status update provided to the Managing Members on February 2, 2021, staff has completed the necessary contractual procurements for temporary leased diesel generators; completed the root cause analysis for the substation failure; completed planning and design for a temporary substation to replace the generators by providing interim power until a permanent substation can be completed by 2023; and started planning and preliminary estimation of design, permitting and construction costs for a permanent replacement substation. This additional funding request will enable the procurement and installation of temporarily leased substation equipment and the completion of the design and permitting for a permanent replacement substation. Upon completion of this work, staff intends to return to the Managing Members with a funding request for the construction of the permanent replacement substation.

C. PROJECT DESCRIPTION AND DETAILS

The purpose of this project is to replace the damaged electrical equipment at Terminal 30. This request is to implement a reliable temporary power solution to maintain tenant operations while completing the planning, design, and construction of a permanent solution to restore full power to Terminal 30. The project scope necessary to achieve this are listed below. Each effort, has 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

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. This procurement led to a POS contract at a more competitive cost than the initial emergency procurement completed by POS Maritime Maintenance. SSAT is currently fueling the generators and POS staff are providing ongoing coordination with the vendor (Herc Rentals) and providing on-site assistance as required. The contract with Herc has since been amended to increase the range of available generator electrical capacities to more flexibly meet the fluctuating electrical infrastructure needs and ensure continued backup generator operation where possible. Additionally, rented diesel air compressor equipment has been temporarily secured by POS for SSAT's use to reduce the total electrical load required in the T-28 M&R Building's shop. All costs associated with this temporary power effort will be charged against the expense project.

2. Substation Failure Root Cause Analysis

Western Electrical Services (WES), an electrical contractor, has been hired to perform an on-site analysis of the failed Terminal 30 Central Substation's equipment, determine the root cause of failure, and test associated infrastructure elements for future ongoing use. We are awaiting WES's final report on these issues. Results of this analysis will contribute to the design of the permanent substation replacement.

3. Temporary Substation

The temporary substation will be an expense project cost and is intended to replace the rented generators as soon as possible by May 2021. This temporary power source will be comparatively less expensive and more reliable than generators, as it will involve reconnection to Seattle City Light's power feed. This solution will primarily require leasing

enclosed electrical switchgear that will be located adjacent to the existing Central Substation, and it will provide power until a permanent replacement substation is constructed. Required on-site infrastructure (electrical conduit trenching, protective barriers/fencing, etc.) will be performed by Port Construction Services, with assistance by POS Maintenance, and the power connection will be completed by Seattle City Light.

4. Permanent Substation Replacement

The proposed permanent replacement substation will be a capital improvement requiring design, permitting, equipment procurement, and major works construction bidding. The project is subject to a number of schedule risks including permitting (depending on extent of final designed improvements) and long-lead equipment procurement which will be expedited to the greatest degree possible. POS Engineering will perform the design, and the anticipated required permits are reflected in the Environmental Impacts/Review section below. Construction funding will be requested for authorization by the Managing Members at a future meeting once design has been completed.

Scope of Work

The project efforts described above include the following major scope of work elements:

Temporary Substation

- Design
- Procurement and leasing of substation equipment
- On-site improvements construction (electrical trenching, barricade/fencing, etc.)
- Temporary substation equipment installation
- Electrical service reconnection to existing T-30 power feed

Permanent Substation

- Design and permitting
- Construction bidding and award
- Substation equipment procurement
- On-site construction (pad removal/replacement, electrical trenching, equipment installation, etc.)
- Electrical service reconnection to existing T-30 power feed

Schedule

Targeted major milestones:

Activity	Timeframe
Temporary substation design completion	March 2021
Temporary substation leased equipment procurement contract award	April 2021
Temporary substation construction completion and re-connection to SCL feed	May 2021
Permanent substation design/permitting completion	Jan 2022
Permanent substation construction funding approval	Feb 2022
Permanent substation construction substantial completion	April 2023

D. FINANCIAL IMPLICATIONS

PROJECT COSTS

U00661 Expense Project

Effort	This Request	Total Project Cost	Cost to Date	Remaining Cost
Temporary Generators Rental	\$0	\$750,000	\$400,000	\$350,000
Temporary Substation Design	\$0	\$50,000	\$30,000	\$20,000
Temporary Substation Construction	\$500,000	\$500,000	\$0	\$500,000
Temporary Substation Equipment Rental	\$500,000	\$500,000	\$0	\$500,000
Total:	\$1,000,000	\$1,800,000	\$430,000	\$1,370,000

U00660 Capital Project

Effort	This Request	Total Project Cost	Cost to Date	Remaining Cost
Substation Failure Analysis	\$0	\$15,000	\$15,000	\$0
Permanent Substation Design & Permitting	\$800,000	\$950,000	\$35,000	\$915,000
Permanent Substation Construction	\$0	\$4,035,000	\$0	\$4,035,000
Total:	\$800,000	\$5,000,000	\$50,000	\$4,950,000

Source of Funds

The current Capital Investment Plan (CIP) allocates \$4,720,000 for U00660 substation replacement (capital) and \$1,677,000 for U00661 temporary power (expense). The budget will be updated as part of the 2022 budget process. Operating expenses associated with this project will be funded through NWSA operating cash generated by normal operations. 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 \$100,000. Project costs for U00661 (expense) will be expensed as incurred.

T-30 provides over \$9.3 million in revenue to the NWSA annually. Replacement of the failed substation is required to maintain that level of revenue. The funds necessary to fix the failed substation were not budgeted as the failure occurred after the 2021 budget was completed. Expenses associated with the temporary solution will reduce NWSA Distributable Income and Distributable Cash, all else being equal. The permanent substation replacement will require additional funds from the home ports for capital projects. The failure investigation may result in cost recovery from the tenant for both the temporary and permanent solution.

E. ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS

Alternative 1) Do Nothing. This will result in long-term loss of electrical power to a significant portion of Terminal 30 and severely impact tenant operations. This is not an acceptable option.

Alternative 2) Continue utilizing temporary diesel generators to supply power. This option is not sustainable over the long-term due to the unreliable mechanical performance of the generators as well as comparatively high rental and fueling costs. This is not an acceptable option.

Alternative 3) Procure and install temporary leased substation equipment to supply power while designing and permitting for construction of a new substation to permanently replace the failed Central Substation. This will provide a less costly, more reliable interim power solution while achieving the best long-term solution to meet the tenant's operational power requirements.

Alternative 3 is the recommended course.

F. ENVIRONMENTAL IMPACTS/REVIEW

Permitting: A SEPA review and City of Seattle Construction and Electrical permits are anticipated to be required.

Remediation: N/A

Stormwater: A stormwater review/permit is not anticipated to be required due to the anticipated amount of ground disturbance being below the minimum code threshold.

Air Quality: N/A

G. ATTACHMENTS TO THIS REQUEST

- Declaration of Emergency – Emergency Repair Due to T-30 Electrical Equipment Failure, dated December 8, 2020

H. 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
TOTAL		\$1,000,000



MEMORANDUM

DATE: December 8, 2020

TO: Thais Howard, PE, Director of Engineering

FROM: John Wolfe, Chief Executive Officer

SUBJECT: **DECLARATION OF EMERGENCY
EMERGENCY REPAIR DUE TO T-30 ELECTRICAL EQUIPMENT FAILURE**

Description:

On Sunday, November 29th a transformer on Terminal 30 failed and caused a power outage to the entire Terminal 30 yard (including the power to refrigerated containers, lighting and buildings). The power failure caused Terminal 30 to be shut down on Monday, November 30th. Port of Seattle Marine Maintenance was dispatched to assist the terminal operator, SSAT, with the power issues and provided four rental generators to provide temporary power. In addition to the transformer being down, there are several other pieces of electrical equipment that may be damaged. In addition to the need for rental generators and providing a temporary power solution, a consultant is needed to assess the failed equipment and determine what the root cause of the failure may have been. Once a cause is determined, staff will determine the path for suitable repairs and/or replacement for a long-term solution. The construction of the long-term solution is not authorized under this emergency declaration.

Additionally, we have notified the tenant and are reviewing the T30 lease to confirm roles and responsibilities relative to this item. While that we believe that this will ultimately be a tenant expense, SSA disagrees. Though Port of Seattle Marine Maintenance has quickly assisted the tenant here by renting generators to assist in rendering the terminal operational as quickly as possible, and staff recommends that the NWSA begin the assessment of the issue, we are reserving all rights with SSAT for SSAT to either shift this work to SSAT or seek a credit or reimbursement from SSAT for this expense. SSAT disputes responsibility for this expense. We are attempting to work through this issue with the tenant, but both parties agree the work needs to get underway as soon as possible.

Justification:

As described, this meets RCW 39.04.280 definition of emergency for purposes of exemption from competitive procurement processes as this is an unforeseen circumstance beyond the control of the Alliance that presents a real, immediate threat to the proper performance of essential functions.

Therefore, in accordance with the NWSA policies (Master Policy, Section 8.j) and applicable law (RCW §§ 39.04.020 and 39.04.280), and as authorized by the NWSA Chief Executive Officer's signature below, an emergency is hereby declared, and staff is authorized to proceed with immediate work relative to the above-described conditions, including issuing contracts without full competitive bidding requirements as necessary to respond to the emergency in accordance

with RCWs 39.04.020, 39.04.280 and 53.19.030. The declaration of emergency will be published on the Alliance's website and in a newspaper of general circulation published in the county in which such work is to be done within seven calendar days following commencement of the work or execution of the contract, whichever occurs first. This Declaration is herewith filed with the Managing Members.

Dated this 8th day of December 2020

A handwritten signature in black ink, appearing to read "John Wolfe", is written over a horizontal line.

John Wolfe
Chief Executive Officer

cc: NWSA Managing Members



Item No: 8C
Date of Meeting: April 6, 2021

Project Authorization For T-30 Substation Replacement Project

Presenter: Tim Leonard
Capital Project Manager, POS

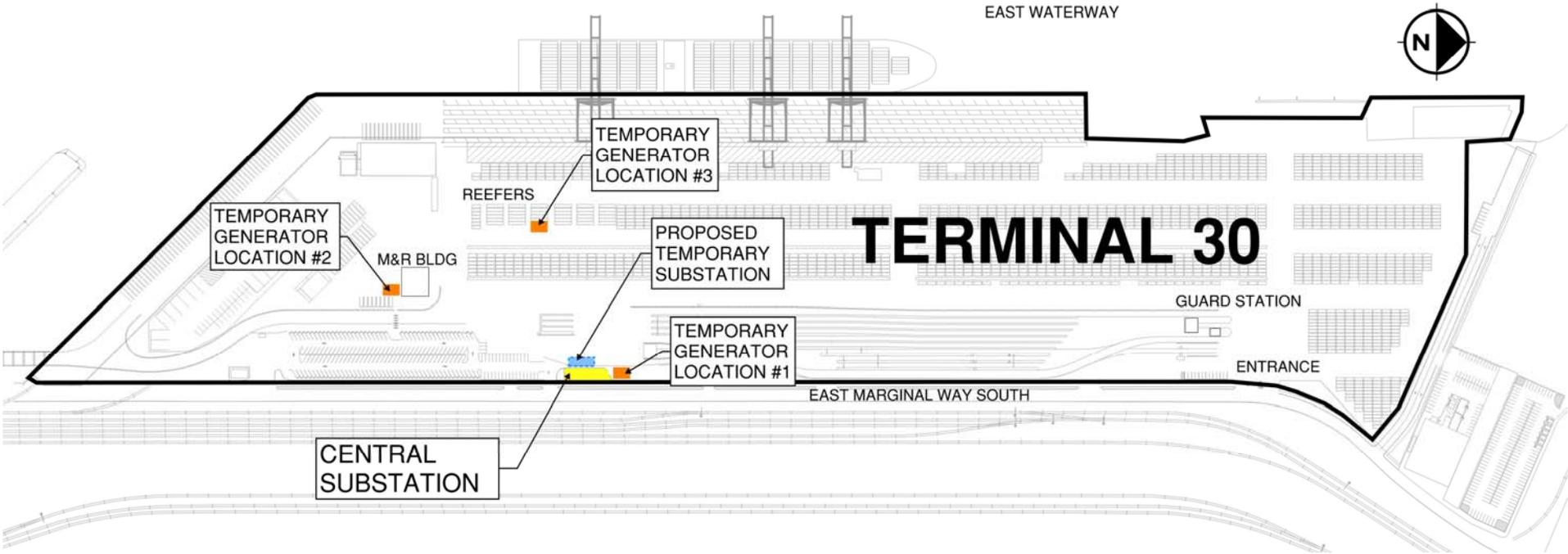
Project Authorization

T-30 Substation Replacement Project

Request project authorization in the amount of \$1,800,000, for a total authorized amount of \$2,800,000, for the T-30 Substation Replacement project, CIP Nos. U00660 (Capital) and U00661 (Expense).



Terminal 30 / Central Substation Site Plan



Central Substation Failure

- 11/29/20 severe arc flash event in substation overhead bus duct
- Substation disconnected from Seattle City Light power feed
- T-30 elements impacted by power loss include:
 - Guard Station
 - Refrigerated Containers
 - Maintenance & Repair Building / Shop
 - Police Station
 - Misc. Yard Lighting



Initial Power Restoration Actions



- Substation / T-30 electrical infrastructure inspected by POS staff 11/30/20
- Power restored 12/01/20 via diesel generators leased by POS Marine Maintenance
- Emergency declared by NWSA 12/08/20
 - \$1,000,000 initial emergency funding
 - New projects created
 - Expense (\$850K) – temporary power solutions
 - Capital (\$150K) – substation failure analysis / long-term power solution(s) planning

Proposed Power Restoration Phases

I. Temporary Diesel Generators (Expense)

- New POS diesel generators lease procurement
- SSA refueling generators
- Generator capacity & backup options

II. Temporary Substation (Expense)

- Eliminates need for temporary generators
- Leased substation equipment
- Reconnection to Seattle City Light power feed
- Power source until permanent substation completed

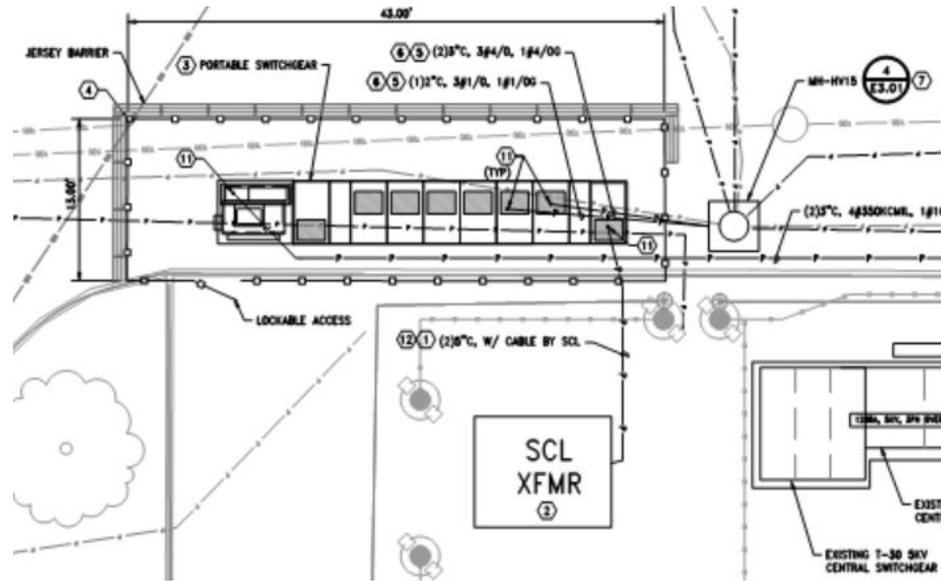
I. Permanent Replacement Substation (Capital)

- Long-term NWSA asset



Temporary Substation Scope Of Work

- Design (completed)
- Portable substation equipment lease procurement (in-progress)
- On-site improvements permit & construction
- Portable substation equipment installation
- Reconnection to existing T-30 power feed



Permanent Substation Scope Of Work

- Existing substation failure root cause analysis (completed)
- Design (in-progress)
- Permitting
- Construction bidding and award
- Substation equipment procurement
- Construction
- Reconnection to existing T-30 power feed



Project Schedule

Activity	Timeframe
Temporary substation design completion	March 2021
Temporary substation leased equipment contract award	April 2021
Temporary substation construction completion	May 2021
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Source of Funds

- The current Capital Investment Plan (CIP) allocates \$4,720,000 for U00660 substation replacement (capital), and \$1,677,000 for U00661 temporary power (expense). The budget will be updated as part of the 2022 budget process.
- T-30 provides over \$9.3 million in revenue to the NWSA annually. Replacement is required to maintain this level of revenue. The cost to replace the substation was not included in the 2021 budget as the failure occurred after the budget was completed.
- The costs associated with the temporary power will reduce Distributable Income and Distributable Cash. The homeports will have to contribute additional Capital Construction funds to build the permanent substation. The failure investigation may result in cost recovery from the tenant for both the temporary and permanent solution.

Financial Summary

Project	This Request	Total Estimated Cost	Cost to Date
U00661 – Temporary Power (Expense)			
Temporary Generators	\$ 0	\$750,000	\$400,000
Temporary Substation	\$1,000,000	\$1,050,000	\$30,000
Subtotal:	\$1,000,000	\$1,800,000	\$430,000
U00660 – Permanent Substation (Capital)			
Design & Permitting	\$800,000	\$965,000	\$50,000
Construction	\$0	\$4,035,000	\$0
Subtotal:	\$800,000	\$5,000,000	\$50,000
Total :	\$1,800,000	\$6,800,000	\$480,000

Environmental Impacts/Review

Permitting: SEPA review and City of Seattle Construction and Electrical permits are anticipated to be required

Remediation: N/A

Water Quality: Stormwater review/permit not anticipated; subject to ground disturbance area required per design

Air Quality: N/A



Conclusion

Request project authorization in the amount of \$1,800,000, for a total authorized amount of \$2,800,000, for the T-30 Substation Replacement project, CIP Nos. U00660 (Capital) and U00661 (Expense).

