

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

Item No. 4a
Date of Meeting March 10, 2015

DATE: March 3, 2015
TO: Ted Fick, Chief Executive Officer
FROM: Michael Burke, Director Seaport Leasing and Asset Management
Fred Chou, Capital Project Manager
SUBJECT: Terminal 91 Substation Upgrade Project (CIP #C800439)

Amount of This Request: \$1,571,000 **Source of Funds:** General Fund
Est. Total Project Cost: \$1,995,000

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to advertise for construction bids, execute a construction contract, and fund the implementation phase of the Terminal 91 Substation Upgrade Project for an estimated cost of \$1,571,000, bringing the total authorized amount to \$1,995,000.

SYNOPSIS

Terminal 91 is an important regional center supporting marine and marine related businesses. Current uses include vessel moorage, cold storage, bulk storage, vessel outfitting and maintenance, maritime related manufacturing, cruise operations and other activities. Reliable and safe electrical power infrastructure meeting operational and tenant needs is essential. Based upon prior assessments, recent investigations and additional design development, investments to replace Substations 1 and equipment upgrades to Substation 14 and 15 are necessary.

This memo requests Commission approval for the construction/implementation phase of the project.

BACKGROUND

Power to Terminal 91 comes through two main distribution substations located within Terminal 91. They in turn supply power to fifteen (15) substations. Three (3) substations and associated equipment are unreliable and they are approaching the end of their service lives. Through project definition and preliminary engineering/evaluation and subsequent analyses, Substations 1 needs total replacement, whereas Substations 14 and 15 require some equipment upgrade and replacement to improve reliability and life safety. The design team evaluated and coordinated the final location of the replacement substation and substation upgrade components, allowing

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flexibility for future development. Staff is wrapping up the design development phase of the project and will soon be ready for construction contract advertisement.

The project was anticipated in the 2015 Plan of Finance as a capital expenditure.

PROJECT JUSTIFICATION AND DETAILS

The project will replace and upgrade Terminal 91 substations/substation equipment at the end of their service lives. This renewal and enhancement project would protect and maintain the long-term revenue stream of the facility.

Project Objectives

- Replace existing substations and equipment with the most cost effective and sustainable solution taking into account full lifecycle costs and total costs of ownership and environmental performance
- Create a design that allows for safe and easy maintenance, and easy future expansions/replacement
- Minimize construction impacts to terminal operations and existing tenants
- Complete project within budget and schedule

Scope of Work

The work scope of this project includes:

- Design and construct a replacement substation
- Upgrade two existing substations
- Design and construct supporting infrastructure, such as duct banks, conduits, and cabling to and from the substations
- Full commissioning of the systems to ensure functionality and safety

Schedule

	<u>Start</u>	<u>Finish</u>
Commission Authorization for Design	March 2014	March 2014
Design	April 2014	March 2015
Advertisement/Bid/Award/Construction	April 2015	April 2016

FINANCIAL IMPLICATIONS

Budget/Authorization Summary

	Capital	Expense	Total Project
Original Budget	\$1,995,000	\$0	\$1,995,000
Previous Authorizations	\$424,000	\$0	\$424,000
Current request for authorization	\$1,571,000	\$0	\$1,571,000
Total Authorizations, including this request	\$1,995,000	\$0	\$1,995,000

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Remaining budget to be authorized	\$0	\$0	\$0
Total Estimated Project Cost	\$1,995,000	\$0	1,995,000

Project Cost Breakdown

	This Request	Total Project
Construction	\$1,269,000	\$1,269,000
Construction Management	\$128,000	\$148,000
Design	\$30,000	\$325,000
Project Management	\$28,000	\$98,000
Permitting	\$0	\$39,000
State & Local Taxes (estimated)	\$116,000	\$116,000
Total	\$1,571,000	\$1,995,000

Budget Status and Source of Funds

This project was included in the 2015 Plan of Finance as Committed CIP #C800439 - T91 Substation Upgrades for a total cost of \$2,058,000, including \$424,000 authorized in the prior year funding.

This project will be funded by the General Fund.

Financial Analysis and Summary

CIP Category	Renewal/Enhancement
Project Type	Renewal & Replacement
Risk adjusted discount rate	N/A
Key risk factors	Project costs could exceed current estimates.
Project cost for analysis	\$1,995,000
Business Unit (BU)	Seaport Industrial Properties
Effect on business performance	<ul style="list-style-type: none">• No incremental operating revenue is directly associated with this project. Project preserves Terminal 91 revenue (from multiple lines of business).• Incremental savings on maintenance expense, if any, is not yet known.• This project will increase depreciation for the first 25 years by approximately \$72K per year based on a 25-year useful life for the electrical components and a 50-year useful life for the infrastructure and will reduce Net Operating Income after Depreciation by a corresponding amount.
IRR/NPV	The NPV is the present value of the project cost (\$1,995,000).

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Lifecycle Cost and Savings

The project implements lowest total cost of ownership for the replacement substations and equipment while balancing environmental performance. Annual operating and maintenance costs for the new substations and equipment are expected to decrease.

STRATEGIES AND OBJECTIVES

This project supports the Port's Century Agenda to position the Puget Sound region as a premier international logistics hub to double the economic value of the fishing and maritime cluster, and be the greenest and most energy efficient port in North America by:

- Investing in and preserving a valuable Port asset.
- Maintaining the long-term revenue generating capability of Terminal 91.
- Reducing maintenance by replacing old, outdated equipment with energy efficient equipment and controls.

TRIPLE BOTTOM LINE

Economic Development

Replacing and upgrading the substations would invest and protect Port assets and maintain the expected service life of the substations, jobs, commerce, and revenues.

Environmental Responsibility

During the early design phase, designers and project managers identified sustainable design goals that improved environmental performance using the sustainable design checklist as a guide. Environmentally sustainable components and activities were included in final design and will be implemented during the construction phase of the project.

Small Business Participation

The project manager and the procurement department will continue to coordinate with the Office of Social Responsibility to maximize opportunities for small business participation in support of Resolution No. 3618.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1) – Remain status quo and replace substations/substation equipment and/or components after they fail. The risks of waiting until the equipment or components fail are that emergency repairs could take a long time to complete due to parts/equipment availability and type of work. Worker safety issues could increase significantly as the equipment ages and passes beyond its service life. Tenant and operation impacts would be more significant compared with planned replacement and/or upgrade. This is not the recommended alternative.

Alternative 2) – Delay the replacement and upgrade for one to two years. The substations and the associated equipment identified are reaching the end of their service lives. Risks and

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consequences identified in the “status quo” alternative could also result. This is not the recommended alternative.

Alternative 3) – Proceed proactively and complete construction as per project schedule. This would reduce future risks of equipment failure, reduce the risk of emergency repair costs, and tenant related impacts. **This is the recommended alternative.**

ATTACHMENTS TO THIS REQUEST

- PowerPoint Slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- March 11, 2014 – Commission authorized \$349,000 design funding for the Terminal 91 Substation Upgrade Project.