

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

| | |
|------------------------|-----------------------|
| Item No. | <u>6a</u> |
| Date of Meeting | <u>March 11, 2014</u> |

DATE: March 3, 2014
TO: Tay Yoshitani, Chief Executive Officer
FROM: Michael Burke, Director Seaport Leasing & Asset Management
Fred Chou, Capital Project Manager
SUBJECT: Terminal 91 Substation Upgrade Project (CIP #C800439)

| | | | |
|---------------------------------|-------------|-------------------------|--------------|
| Amount of This Request: | \$349,000 | Source of Funds: | General Fund |
| Est. Total Project Cost: | \$1,995,000 | | |

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to develop design documents, execute consultant contracts, apply for permits, and prepare construction documents as part of the Terminal 91 Substation Upgrade Project for an estimated cost of \$349,000. The total project cost is estimated at \$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 and recent investigations, investments to replace Substations 1 and 15, and equipment upgrades to Substation 14 are necessary.

This memo requests Commission approval for the design development and permitting phase of the project. Staff anticipates returning to the Commission later this year for construction funding authorization.

BACKGROUND

Power to Terminal 91 comes through two main distribution substations located within Terminal 91. They in turn supply power to 14 substations. Some substations and associated equipment have been identified as approaching the end of their service lives. Reliability and life safety are among the primary concerns. Through project definition and preliminary engineering/evaluation and analyses, Substations 1 and 15 need total replacement, whereas Substation 14 requires some equipment upgrade and replacement. Substation 4 is also in need of replacement but due to its location relative to Berths 6 and 8, (east side, north end of Pier 90 and within the Berths 6 and 8

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project area) which have been identified as a major redevelopment project under Port's 2014 Capital Plan, substation upgrade work would be incorporated under the berth's redevelopment project. Final location of the replacement substations will be carefully coordinated so they would not impact future development.

The project was anticipated in the 2014 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 two replacement substations
- Upgrade an existing substation
- Design and construct supporting infrastructure, such as ductbanks, 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 | October 2014 |
| Advertisement/Bid/Award/Construction | November 2014 | December 2015 |

FINANCIAL IMPLICATIONS

Budget/Authorization Summary

| | Capital | Expense | Total Project |
|-----------------------------------|-----------|---------|---------------|
| Original Budget | \$0 | \$0 | \$0 |
| Previous Authorizations | \$75,000 | \$0 | \$75,000 |
| Current request for authorization | \$349,000 | \$0 | \$349,000 |

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|--|-------------|-----|-------------|
| Total Authorizations, including this request | \$424,000 | \$0 | \$424,000 |
| Remaining budget to be authorized | \$2,076,000 | \$0 | \$2,076,000 |
| Total Estimated Project Cost | \$1,995,000 | \$0 | 1,995,000 |

Project Cost Breakdown

| | This Request | Total Project |
|---------------------------------|--------------|---------------|
| Construction | \$0 | \$1,344,000 |
| Construction Management | \$20,000 | \$148,000 |
| Design | \$220,000 | \$250,000 |
| Project Management | \$70,000 | \$98,000 |
| Permitting | \$39,000 | \$39,000 |
| State & Local Taxes (estimated) | \$0 | \$116,000 |
| Total | \$349,000 | \$1,995,000 |

Budget Status and Source of Funds

This project was included in the 2014 Draft Plan of Finance under Committed-Division Approved CIP #C800439 - T91 Substation Upgrades for a total cost of \$2,500,000.

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 by \$100K per year based on a current estimated 20 year useful life (actual depreciable life to be determined, but may be longer) and will reduce Net Operating Income 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

A lifecycle cost analysis will identify the 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

Investigate and incorporate environmentally sustainable components and activities during the design development phase of the project.

Community Benefits

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

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1) – Do nothing 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 consequences identified in the “do nothing” alternative could also result. This is not the recommended alternative.

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Alternative 3) – Proceed proactively with design development and permit application phase of the project and then 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

- Computer slide presentation.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- None.