

THE NORTHWEST SEAPORT ALLIANCE
MEMORANDUM

MANAGING MEMBERS
ACTION ITEM

| | |
|------------------------|----------------------|
| Item No. | <u>3E</u> |
| Date of Meeting | <u>March 2, 2021</u> |

DATE: February 17, 2021

TO: Managing Members

FROM: John Wolfe, CEO

Sponsor: Jason Jordan, Director, Environmental and Planning Services

Project Managers: Steve Nicholas, Environmental Senior Project Manager,
and Joe Caldwell, Maintenance Project Manager

SUBJECT: Project Authorization for Lighting Upgrade at EB1

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 \$210,237 for work associated with the Lighting Upgrade at East Blair Breakbulk (EB1) Yard, Master Identification No. 201122.01.

B. SYNOPSIS

The proposed exterior lighting upgrade project at EB-1 will:

- Save nearly \$24,000 annually in reduced electricity bills and maintenance costs;
- Reduce the lighting-related energy usage at EB-1 by 55%;
- Improve the quality of lighting in ways that improve worker safety and reduce light pollution for both people and aquatic life near the property.

The total estimated projects costs are \$210,237, and total estimated rebates that the NWSA will receive from Tacoma Public Utilities (TPU) after project completion is \$25,750 (about 12% of the total project costs). The financial analysis estimates a payback period of eight years.

This authorization request is below the \$300,000 Executive Authorization delegated to the NWSA CEO; however, because a future request at the North Intermodal (NIM) Yard for a total project cost expected to be over \$300,000, staff is bringing this project to the Managing Members for full transparency, review and approval.

C. BACKGROUND

The project entails updating the exterior lighting at EB1 – from old, inefficient high-intensity discharge (HID) lamps to new, highly efficient Low Emitting Diode (LED) lighting. In all, about 103 lighting fixtures will be replaced at EB-1. This project pays for itself in eight years, and achieves the following benefits:

- **Financial/Economic:** Reduces electricity and maintenance costs, saving money the NWSA can deploy elsewhere. Improves safety and working conditions in two ways: 1) reducing the need for maintenance staff to frequently replace bulbs perched on 90-foot poles; and 2) delivering better visibility to workers on night and hoot shifts.
- **Environmental:** Significantly reduces energy use, which translates into less air and climate pollution from power plants by helping TPU sustain its commitment to delivering zero-emission electricity and avoid the need to develop new energy sources. In addition, the project protects marine life in the Blair Waterway because LED lighting is more focused on the docks with less “spillage” into surrounding waters.
- **Social/Community:** Reduced light pollution for South Harbor communities, as the LED lighting is “cleaner” and more directed downward toward the docks.
- Staff intended to include the NIM exterior lighting upgrade as part of this project request authorization but need additional time to work with our marine terminal operator and TPU to sort out billing/lighting responsibilities. In order to maximize available TPU rebates, staff is recommending moving forward this portion of the project.

D. PROJECT DESCRIPTION AND DETAILS

Project Objectives

Remove the high-intensity discharge (HID) lamps and replace them with light-emitting diode (LED) fixtures.

As noted above, there is the same opportunity at the North Intermodal (NIM) Yard, and we are working on the final details of that project which we will present at an upcoming Managing Members meeting (tentatively planned for April). Since these projects need to be completed by the end of 2021 to maximize TPU incentives, it is pertinent to present the EB-1 opportunity for authorization at this meeting.

Scope of Work

- EB1 – Remove all 103 HID lamps and install 103 LED fixtures

Schedule

- Order Fixtures – 5 to 7 weeks lead time on material, ETA 4/30/21
- Install Fixtures – Estimated 4 weeks to install all fixtures, ECD 5/31/21

E. FINANCIAL IMPLICATIONS

Project Cost Details

| | This Request | Total Project Cost | Cost to Date | Remaining Cost |
|--------------|---------------------|---------------------------|---------------------|-----------------------|
| Procurement | \$ 155,977 | \$ 155,977 | \$ - | \$ 155,977 |
| Pre-Design | \$ - | \$ - | \$ - | \$ - |
| Design | \$ - | \$ - | \$ - | \$ - |
| Construction | \$ 54,260 | \$ 54,260 | \$ - | \$ 54,260 |
| Total | \$ 210,237 | \$ 210,237 | \$ - | \$ 210,237 |

Source of Funds

The current Capital Improvement Plan (CIP) Budget allocates \$211,000 for this project.

Financial Impact

Assuming 15 years life, this project has an 8-year payback and an expected rate of return of 12.5%.

Project costs will be capitalized and depreciated over an estimated useful life of 15 years, resulting in annual depreciation expense of \$12,300 (after rebate). Depreciation expense for 2021 will be approximately \$7,200 based on a substantial completion date of May 2021.

F. ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS

Alternative 1) Do nothing, thereby missing the opportunity to save money (through reduced electricity bills and maintenance costs), reduce energy consumption, reduce light pollution, and improve worker safety.

Alternative 2) This request.

Alternative 2 is the recommended course.

G. ATTACHMENTS TO THIS REQUEST

- Computer slide presentation

H. PREVIOUS ACTIONS OR BRIEFINGS

None.



Item No: 3E
Date of Meeting: March 2, 2021

Project Authorization For Exterior Lighting Upgrade at EB-1

Presenters:
Steve Nicholas, Environmental Senior Project Manager
Joe Caldwell, Maintenance Project Manager

Project Authorization

Exterior Lighting Upgrade at EB-1

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 \$210,237 for the Exterior Lighting Upgrade at EB-1 project, Master Identification No. 201122.01.



Background

Exterior Lighting Upgrade at EB-1

- LED (low emitting diode) lighting is much better than HID (high intensity discharge) lighting:
 - Increased energy efficiency
 - Reduced costs
 - Improved worker safety
 - Reduced light pollution
- Given cost savings and utility rebates, payback period is 8 years
- In addition to the strong business case behind these projects, project advances NWSA's Air Quality & Sustainable Practices program, including the Northwest Ports Clean Air Strategy



Better, cleaner, safer lighting



Project Description

Exterior Lighting Upgrade at EB-1



- Replace 103 HID fixtures with 103 LED fixtures
- Project cost: \$210K
- **Utility rebate: \$26K**
- Annual cost savings: \$24K
- Annual energy savings: 55%

Project Schedule

Exterior Lighting Upgrade at EB-1

| Activity | Timeframe |
|----------------------|------------------|
| Order LED Fixtures | 3/4/21 - 4/30/21 |
| Install LED Fixtures | 5/1/21 - 5/31/21 |



Source of Funds

Exterior Lighting Upgrade at EB-1

- The estimated cost of the Procurement/Construction for this project is \$210,237.
- The estimated budget for this project is \$210,237.
- The current Capital Investment Plan (CIP) allocates \$251,000 for this project.
- This work and associated budget is consistent with the NWSA valuation.

Financial Summary

Exterior Lighting Upgrade at EB-1

| | This Request | Total Project Cost | Cost to Date | Remaining Cost |
|--------------|-------------------|--------------------|--------------|-------------------|
| Procurement | \$ 155,977 | \$ 155,977 | \$ - | \$ 155,977 |
| Pre-Design | \$ - | \$ - | \$ - | \$ - |
| Design | \$ - | \$ - | \$ - | \$ - |
| Construction | \$ 54,260 | \$ 54,260 | \$ - | \$ 54,260 |
| Total | \$ 210,237 | \$ 210,237 | \$ - | \$ 210,237 |



Supplementary Information Exterior Lighting Upgrade at the North Intermodal (NIM) Yard

Staff intended to include the NIM exterior lighting upgrade as part of this project request authorization but need additional time to work with our marine terminal operator and TPU to sort out billing/lighting responsibilities. In order to maximize available TPU rebates, staff is recommending moving the EB-1 portion of the project forward.



Conclusion

Exterior Lighting Upgrade at EB-1

Request project authorization in the amount of \$210,237 for the Lighting upgrades at EB-1 project, Master Identification No. 201122.01.

