PORT OF OAKLAND

6/8/2023

AGENDA REPORT

PROPOSED ACTION:

Resolution: Approve and Authorize the Executive Director to: (1) Dispense with Standard Bidding Procedures, (2) Issue a Request for Proposals to solicit proposals from Interested Prime Builder Entities for Design Builder Services for Mobile Shore Power Outlet System at Berths 55 and 59, and (3) Resolve Any Protests Resulting from the Process. **(Engineering/Maritime)**

Submitted By: Kristi McKenney, Chief Operating Officer; Bryan Brandes, Director of Maritime; Danny Wan, Executive Director

Parties Involved: TBD	Amount: Not applicable

EXECUTIVE SUMMARY:

The Port of Oakland (Port) provides Shore Power for berthed vessels via fixed Shore Power Outlets at most of its berths in the Seaport. While these outlets are functional, they are fixed along the wharf and cannot accommodate some vessel sizes and berthing positions. To address increasingly stringent regulatory requirements, Staff proposes to install a mobile shore power outlet, one each, at Berth 55 and Berth 59 (Project). The outlets are attached to the wharf face and are on a track system that allows the outlet to traverse along the wharf face to provide an infinite number of plug-in locations. This system offers flexibility such that a larger range of vessels can utilize shore power. Staff proposes to deliver this project using the Alternative Project Delivery Approach (APDA), which includes utilizing the Non-Discrimination and Small Local Business Utilization Policy since the selected prime (Design-Builder) will design and build the mobile shore power units. To utilize the APDA, staff is seeking Board approval to authorize the Executive Director to issue a request for proposals (RFP) for delivery of the Project under the APDA policy. Staff is also seeking approval for the Executive Director to dispense with standard bidding procedures and resolve any protests resulting from the process. The Design Builder (DB) selection criteria include elements of price. APDA selection criteria including minimum Local Business Utilization (LBU) requirements, qualifications, experience, project approach, personnel, and referenced projects as described herein.

BACKGROUND & ANALYSIS

In 2007, the California Air Resources Board (CARB) adopted the Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port regulation (At-Berth Regulation) to reduce emissions from container ships, refrigerated cargo ships, and cruise ships while docked at the six largest Ports in California. Enforcement of the At-Berth Regulation began in 2014 with a 50% plug-in

requirement with increasingly stricter milestones growing up to 80% in 2020. This has resulted in an approximately 80% reduction in oxides of nitrogen (NOx), diesel particulate matter (DPM), and greenhouse gas (GHG) from these types of ships while at berth. CARB amended the regulation in 2022, adding new types of vessels (tankers and auto carriers) and effectively requiring 100% of all container ships to either use shore power or a CARB-approved control technology by January 1, 2023.

The primary mechanism for regulated ships to comply with the At-Berth Regulation is for vessels to connect to the landside electrical grid while docked and shut off their diesel engines. In 2014, the Port completed the necessary landside electrical infrastructure (Shore Power) to allow vessels to plug in. The Port's Shore Power system has three or four fixed Shore Power Outlet (SPO) vaults located along the face of the wharf at each berth. The challenge of fixed SPOs is that the vessel's on-board shore power cable must line up within three feet of a SPO to be able to connect. Given the variability of vessel sizes and berthing positions, fixed SPOs can accommodate most, but not all, vessel sizes, shore power cable arrangements, and berthing positions at a terminal.

In 2022, a year still heavily impacted by the COVID pandemic, the Port recorded 508 successful Shore Power plug-ins (62%) out of 818 total calls, and 310 missed plug-ins (38%). While the primary reason for the missed shore power connections was vessels that were not retrofitted for Shore Power (85%), approximately 3% of missed shore power connections were vessels that were unable to access the fixed SPO vaults. Further, Staff analyzed shore power data and determined that the lowest plug-in rates were at Berths 55 and 59, which are the two end-berths at Oakland International Container Terminal (OICT, the Port's busiest terminal). These two berths have the least flexibility in berthing arrangement and only three fixed SPOs at each of the berths, instead of four.

Staff inquired among the industry, seeking a solution that would provide the needed berthing flexibility for a large range of ship sizes while complying with terminal safety requirements to improve the percentage of successful vessel plug-ins. The goal is to maximize flexibility in berthing arrangements and minimize coverage gaps between existing SPO vaults.

Staff explored several mobile shore power technologies that provide coverage between fixed SPO vaults. However, the available mobile systems used cable reels connected to fixed SPO vaults. The mobile cable reel systems require a high voltage cable to lay on top of the working deck surface while in operation, posing an unacceptable safety risk for Port terminal operations.

In December 2017, the Port informally solicited a few vendors for a conceptual design of a Shore Power cable management system that would provide additional flexibility for ships connecting to Shore Power. The design criteria required the shore power system to have a physical cable protection system and it needed to be mounted along the waterside face of the wharf to avoid laying high voltage cables on the wharf. The Port awarded a $24,000 conceptual design contract to IGUS Inc. (IGUS) to provide a solution to allow a shore power connection at any point within a 500 feet range along the wharf; thus, negating the need to align a vessel at an existing SPO location.

IGUS demonstrated a proprietary conceptual Mobile Shore Power Outlet (MSPO) design utilizing its energy chain system that met the general needs of the Port. Their system required the existing vessel fender system to be replaced or relocated to allow room outside the wharf face for the MSPO to operate. Coincidentally, the fender system at OICT was in need of replacement. The fender improvements are currently underway at the terminal and expected to be completed in FY2024/2025, ahead of any proposed MSPO construction.

In January 2021, the Port hired Moffatt and Nichol (M&N) to develop a bridging document for the MSPO system to proceed with the next steps of delivery. The bridging document was completed in February 22, 2022, and includes operational considerations.

Staff determined that the Port's Non-Discrimination and Small Local Business Utilization Policy for Alternative Project Delivery Approach policy for a Design Builder (APDA/DB) contract is the preferred method for delivering the Shore Power MSPO system at Berths 55 and 59. A design build contract is the typical delivery method used by other public agencies and private developers to deliver unique projects where the scope is more defined but where it is more advantageous to have the contractor hire a consultant to perform the design and then self-perform the construction. Under the APDA/DB contract, staff will integrate the Bridging Document produced by M&N into the RFP solicitation to obtain a bid/proposal. The proposal will be evaluated using the criteria listed below to determine the best value proposal. The scope of work for the DB comprises two parts, namely design and construction.

The design scope generally includes:

1) Design of all electrical components and infrastructure needed to connect the IGUS MSPO system to the Port's electrical system
2) Confirmation of attachment locations of the IGUS MSPO system along the wharf face

The construction scope generally includes:

1) Furnishing and installation of all electrical infrastructure required to operate the IGUS MSPO
2) Contracting and coordination with IGUS for the purchase, delivery, installation, and testing of the MSPO system

The following benefits of the APDS/DB contract make this the best approach for delivery of the project:

- **IGUS Mobile Shore Power System.** Procurement and implementation of the IGUS MSPO system. IGUS has further designed its proprietary energy chain system, including a working prototype at its manufacturing facility in Germany. In addition, IGUS has been contracted to design and construct the first MSPO in the world for the Port of Hamburg, Germany. To date, there are no other vendors that can produce a similar system. The APDS/DB contract allows the Port to purchase/install this specific system.

- **Early Project Involvement and Review.** Projects constructed under the APDA/DB Contract are delivered in two phases. Phase 1 involves pre-construction services and Phase 2 consists of construction. The pre-construction services phase consists of construction planning, scheduling, cost estimating, constructability reviews, value engineering, small business outreach, subcontractor bidding, negotiating a cost for construction, and submitting the cost to the Port for approval. The DB's review of the plans may start at any time during the design process and can be very helpful in identifying the full scope of the work, flagging key issues and risks, and developing realistic sequencing of work within the operational environment of the terminal. These are significant benefits that cannot be achieved with the more traditional design-bid-build (DBB) contracting approach. For this solicitation, Pre-Construction services for cost development are made part of the process in responding to this RFP. Development of the cost is further described below.

- **Working Directly with the DB and its consultant(s).** Projects constructed under the APDA/DB Contract are delivered by the DB, who is self-performing the work. Staff will engage directly with the contractor and provide input on design elements while not having to incur the liability of the design. Concurrently, the DB provides constructability review, value engineering, and recommends construction methods or sequencing that may further reduce cost or time. Similar projects in the Seaport were successful when the contractor and staff collaborated prior to finalizing the design and starting construction. There were savings in time and costs. The process reduced unknowns and misunderstandings in the scope of work.

Design Builder Selection Process

With Board approval, staff would issue the RFP for this solicitation. The responses to the DB RFP will be evaluated and ranked by a team comprised of staff within the Maritime, Engineering, and Social Responsibility divisions. Staff proposes to review the responses to the RFP using the following criteria and weighting as summarized in Table 1.

Table 1-Proposed RFP Selection Criteria

Criteria	**Weighting (%)**
Responsiveness	Pass/Not Pass
Port's Non-Discrimination and Small Local Business Utilization Policy for Alternative Project Delivery Approaches Criteria	15
Qualifications, Experience, and Project Approach	30
Personnel and Specialized Experience of Team Members	20
Referenced/Relevant Projects	10
Price/Bid	25
Total	100

Price

Whereas typical construction projects must be awarded to the lowest, responsive, responsible contractor, the APDA/DB Contract affords the Port the opportunity to gauge "best value" as a balance between cost and technical quality for selection. The Price/Bid selection criteria will focus on the consultant cost and DB fee submittal. The lowest overall fee will be assigned the maximum points and higher overall cost will have proportionately lower price scores.

Qualifications and Experience

This criterion will require relevant experience working on marine terminal electrical projects. Respondents must demonstrate the success of their projects measured by their adherence to established schedules, project delivery within established budget, and attainment of the project's goals and priorities. Respondents must also describe their approach to the management and execution of Maritime projects that meet the Port's requirements for quality, schedule, and cost while minimizing disruptions to Terminal

operations. Also, the experience of the individuals being proposed for key management, construction, administrative, and support positions for the project will be evaluated.

Proposals received by the Port will be evaluated as described above, scored, and ranked. A scoring system with a maximum score of 100 points will be utilized to rank the Proposals.

Depending on the number of Proposals received, the Port will include one (1) or more of the most qualified candidates on a 'short list' who will be invited to oral evaluations, which will include a presentation from and an interview with the Respondent. Scoring of the Proposals may be adjusted based on the Respondents' presentation and interview performance.

The final score of the Proposals, adjusted for the oral evaluation results, will be used to rank the Respondents, and select a preferred team to enter into contract. This procurement approach is consistent with Port Ordinance No. 4576. Based on the current schedule, staff anticipates returning to the Board in late 2023 to present the results of the evaluation and recommend approval to contract with the selected team.

Dispensing with Standard Bidding Procedures

The Port can, under some limited circumstances and authorized by the Board under Ordinance No. 4576, forego competitive bidding, including where calling for bids on a competitive basis is "impracticable, unavailing or impossible," or after a finding and determination by the Board that "it is in the best interest of the Port." Staff have concluded that it is in the best interest of the Port to proceed with an open and competitive "best value" selection of a DB entity so that the Port can consider not only price, but also the qualifications and experience of the team, their utilization of local businesses, and require the DB to procure the proprietary IGUS MSPO system. Moreover, since the competitive process is structured to include all qualified bidders and requires the participation of local and local small businesses, the best interests of the Port will be served by this process.

OTHER FINDINGS AND PROVISIONS

ENVIRONMENTAL REVIEW

The proposed action was analyzed under the California Environmental Quality Act (CEQA) and was found to be:

☐ Categorically exempt under the following CEQA Guidelines Section:

Choose an item.

☒ Exempt from CEQA because it is not a "Project" under CEQA as defined in Public Resources Code §21065.

☒ Other/Notes: This action, to approve an Alternative Project Delivery Approach, is not a project under CEQA. However, any subsequent actions such as approving a Design Build contract, will require separate environmental review.

BUDGET

☒ Administrative (No Impact to Operating, Non-Operating, or Capital Budgets); OR

☐ Operating ☐ Non-Operating ☐ Capital

Analysis: There is no immediate fiscal impact associated with the approval of the request. However, implementation of MSPO Project will result in additional capital expenditures. The project is included in the FY24-28 CIP Program.

STAFFING

☒ No Anticipated Staffing Impact.

☐ Anticipated Change to Budgeted Headcount.

Reason:

☐ Other Anticipated Staffing Impact (e.g., Temp Help).

Reason:

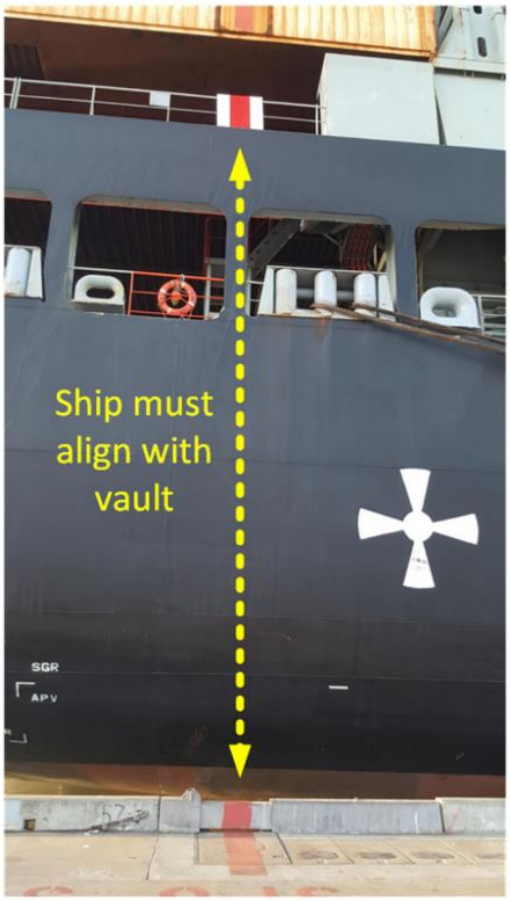
MARITIME AND AVIATION PROJECT LABOR AGREEMENT (MAPLA): Applies? No (Not Aviation or Maritime CIP Project) – proposed action is not covered work on Port's Capital Improvement Program in Aviation or Maritime areas above the threshold cost. ☐ Additional Notes:	**LIVING WAGE** (City Charter § 728): Applies? No (No Covered Agreement) – proposed action is not an agreement, contract, lease, or request to provide financial assistance within the meaning of the Living Wage requirements. ☐ Additional Notes:
MARITIME AND AVIATION PROJECT LABOR AGREEMENT (MAPLA): Applies? No (Other) - see explanation below.	**LIVING WAGE** (City Charter § 728): Applies? No (Other) – see explanation below.

Additional Notes: The requested action does not apply. However, the resulting project is a CIP project and applies.	☒ Additional Notes: Living Wage does not apply for the current action.
SUSTAINABLE OPPORTUNITIES: Applies? No. Reason: No proposed development for the current action.	**GENERAL PLAN** (City Charter § 727): Conformity Determination: No Project – conformity determination not required because proposed action does not change use of or make alterations to an existing facility, or create a new facility.

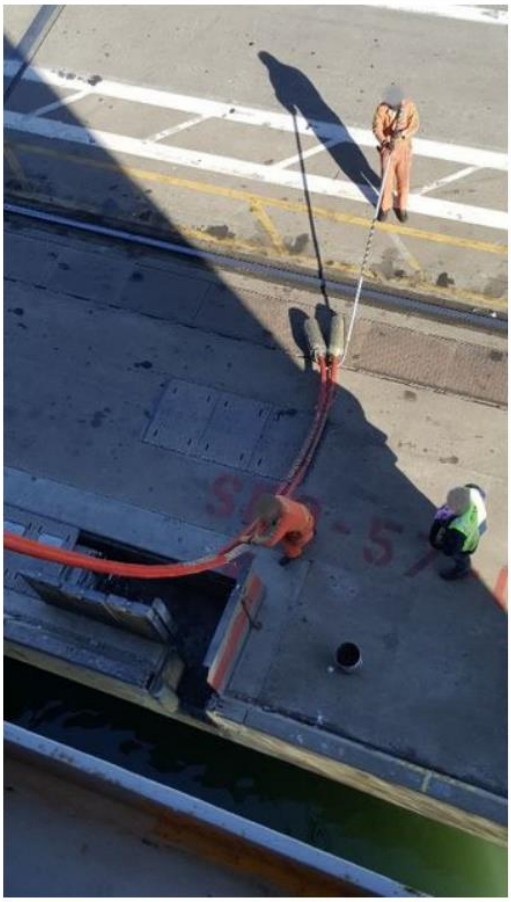
STRATEGIC PLAN. The proposed action would help the Port achieve the following goal(s) and objective(s) in the Port's Strategic Business Plan:

☒ Grow Net Revenues	☒ Modernize and Maintain Infrastructure
☒ Improve Customer Service	☐ Pursue Employee Excellence
☐ Strengthen Safety and Security	☒ Serve Our Community
☒ Care for Our Environment	

Typical Existing Shore Power Connection (fixed location)



View of ship correctly aligned with marker on vault.



View looking down from a ship at the shore power vault with cables being prepared for plug in.

Conceptual Mobile Shore Power System Attached to the Wharf Face

Mobile Shore Power Outlet location traverses along the face of the wharf to align with the vessel cables instead of the vessel cables needing to align with the outlet location.