

**DATE:** April 10, 2018

**SUBJECT:**

**..Title**

**IMPLEMENTATION AND INSTALLATION OF A RENEWABLE MICROGRID AT THE TENTH AVENUE MARINE TERMINAL:**

- A) RESOLUTION APPROVING THE SECOND ADDENDUM TO THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE “TENTH AVENUE MARINE TERMINAL REDEVELOPMENT PLAN AND DEMOLITION AND INITIAL RAIL COMPONENT PROJECT,” IN ACCORDANCE WITH MITIGATION MEASURE – GREENHOUSE GAS NO. 6;**
- B) RESOLUTION APPROVING INSTALLATION OF A RENEWABLE MICROGRID AT THE TENTH AVENUE MARINE TERMINAL, CONTINGENT ON GRANT FUNDING**

**..Body**

**EXECUTIVE SUMMARY:**

In August 2017 the California Energy Commission (CEC) released a grant funding opportunity (GFO), GFO-17-302, titled “Demonstrate Business Case for Advanced Microgrids in Support of California’s Energy and Greenhouse Gas Policies.” The purpose of this grant is to fund the demonstration and deployment of advanced energy and microgrid technologies that move toward replicable deployment. District staff submitted an application in November 2017 for a Renewable Microgrid at the Tenth Avenue Marine Terminal (TAMT). The Renewable Microgrid includes the installation and subsequent use of solar photovoltaic (PV) on the roof of Warehouse B or Warehouse C, an energy battery storage system, energy efficiency improvements, and electrical infrastructure upgrades.

A Notice of Proposed Awards (NOPA) was released by the CEC on February 20, 2018, that identified the District’s project as receiving an award in the amount of \$4,985,272. The estimated total project cost of \$9,615,208 includes a combined in-kind match from the District and University of California, San Diego (UCSD) in the amount of \$4,629,936.

The Renewable Microgrid implements a mitigation requirement identified in the TAMT Final Environmental Impact Report (EIR) and it facilitates Climate Action Plan progress through the use of increased renewable energy and energy efficiency, thereby reducing greenhouse gas (GHG) emissions. Additional project benefits include cost savings through demand response and peak shaving of District energy loads resulting in reduced electric utility expenses, and increased energy security and resiliency at the TAMT by providing back-up power to District operated facilities, including security infrastructure, site lighting and the existing jet fuel pump.

The TAMT Final EIR requires renewable energy projects to be incorporated within the TAMT or within/areas adjacent to the District’s jurisdiction, or the purchase of GHG offsets from California Air Resources Board (CARB) approved registry or a locally approved equivalent program to achieve an annual reduction, pursuant to Mitigation

Measure GHG-6. The installation of a Renewable Microgrid at TAMT is estimated to result in a reduction of 361 MTCO<sub>2</sub>e annually, which would fulfill approximately 2% of the TAMT's Redevelopment Plan's Final EIR requirement for the 2035 buildout year.

The TAMT Final EIR thoroughly analyzed the potential environmental effects of the TAMT Redevelopment Plan and includes extensive mitigation measures to avoid or reduce the potentially significant impacts on the environment. Although implementing a renewable energy project at TAMT was contemplated at the time the Final EIR was certified, the specific design details of the proposed Renewable Microgrid were not known. Now that the construction and operational details are known, the District has confirmed that the Renewable Microgrid does not involve new or more severe significant effects. As such, the District has prepared the Second Addendum to the TAMT Final EIR in accordance with the California Environmental Quality Act (CEQA) and its implementing guidelines (CEQA Guidelines).

An addendum to the TAMT Final EIR is a necessary first step to Renewable Microgrid project implementation and staff's continued negotiation with the CEC on the grant terms and conditions, which will be brought back to the Board at a future date.

The CEC requested that the Renewable Microgrid's CEQA documentation be completed prior to finalizing the grant agreement. Once the grant agreement is finalized, staff will return to the Board at a future date to request authorization for grant acceptance and project funding.

### **RECOMMENDATION:**

#### **..Recommendation**

Implementation and installation of a Renewable Microgrid at TAMT:

- A) Adopt a resolution approving the Second Addendum to the Final Environmental Impact Report for the "Tenth Avenue Marine Terminal Redevelopment Plan and Demolition and Initial Rail Component Project," in accordance with Mitigation Measure – Greenhouse Gas No. 6;
- B) Adopt a resolution approving installation of a Renewable Microgrid at the Tenth Avenue Marine Terminal, contingent on grant funding.

#### **..Body**

### **FISCAL IMPACT:**

The Board's adoption of the Second Addendum to the TAMT Final EIR (Item A) and its approval of the Renewable Microgrid at TAMT (Item B) are necessary to secure the \$4.98 million grant from the California Energy Commission (CEC). This grant will require a \$4.62 million match for an estimated total project cost of \$9.61 million.

The CEC requested that the Renewable Microgrid's CEQA documentation be completed prior to finalizing the grant agreement. Once the grant agreement is finalized, staff will return to the Board at a future date to request authorization for grant acceptance and project funding.

## **COMPASS STRATEGIC GOALS:**

The Renewable Microgrid would support modernization of the TAMT by implementing Mitigation Measure GHG-6, thereby increasing the terminal's efficiency, environmental benefits, and energy resiliency. This agenda item supports the following Strategic Goal(s).

- A Port that the public understands and trusts.
- A thriving and modern maritime seaport.
- A Port with a healthy and sustainable bay and its environment.
- A Port with a comprehensive vision for Port land and water uses integrated to regional plans.
- A Port with an innovative and motivated workforce.
- A financially sustainable Port that drives job creation and regional economic vitality.

## **DISCUSSION:**

### **Background of Renewable Energy Requirements for the Tenth Avenue Marine Terminal**

The Renewable Microgrid satisfies a portion of a mitigation measure identified in the Final EIR for the TAMT Redevelopment Plan, which was approved by the Board on December 13, 2016. In December 2016, the Board took action to certify the TAMT Final EIR, adopt the TAMT Redevelopment Plan as amended by staff to reflect the Sustainable Terminal Capacity Alternative, and authorize issuance of a non-appealable Coastal Development Permit for the initial Demolition and Initial Rail Component Project.

The Renewable Microgrid would enable the District to begin achieving the GHG reductions identified at buildout of the TAMT Redevelopment Plan for year 2035. Referred to as "Mitigation Measure GHG-6" in the TAMT Final EIR's MMRP (Attachment A), this measure requires the implementation of renewable energy projects or the purchase of GHG offsets from a CARB approved registry or a locally approved equivalent program to achieve an annual reduction of 18,206 MTCO<sub>2e</sub> at full buildout of the TAMT Redevelopment Plan in 2035. The installation of a Renewable Microgrid at TAMT is estimated to result in a reduction of 361 MTCO<sub>2e</sub> annually, which would fulfill approximately 2% of the TAMT's Redevelopment Plan's Final EIR requirement for the 2035 buildout year<sup>11</sup>. The Renewable Microgrid includes the installation and subsequent use of solar PV on the roof of Warehouse B or Warehouse C, an energy battery storage system, energy efficiency improvements, and electrical infrastructure upgrades.

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<sup>1</sup> Greenhouse Gas Emission (or CO<sub>2e</sub>) reductions are calculated by estimating the number of kilowatt hours that would be reduced, based on the overall composition of the electrical grid that was identified in the Final EIR's baseline analysis. Therefore, the 361 MTCO<sub>2e</sub> reduction assumed in this analysis is based on the SDG&E electrical grid composition that was in place during the Final EIR's baseline, which averaged the 2013 renewable portfolio standard of 24% with the 2014 renewable portfolio standard of 32.2%. This yields an estimate of approximately 28.1% renewable resources, with a conversion rate of 699.5 pounds per megawatt hour. The Renewable Microgrid reductions are attributed to the use of 100% renewable energy and battery storage which provide a net annual energy reduction of approximately 858,000 kWh (272.23 MT CO<sub>2e</sub>) and reduction in energy consumption through lighting energy efficiency measures of approximately 280,000 kWh (88.84 tons of CO<sub>2e</sub>).

### Funding to Implement the Renewable Microgrid at the Tenth Avenue Marine Terminal

In August 2017 the CEC released GFO-17-302, titled “Demonstrate Business Case for Advanced Microgrids in Support of California’s Energy and GHG Policies.” The CEC funding opportunity is through the Electric Program Investment Charge. District staff submitted an application in November 2017 for a Renewable Microgrid at TAMT under the Group 1: Demonstration of Standardized High-DER Penetration, Renewable-Based, Resilient and Commercially Viable Microgrids Located at California Military Bases, Ports, and Native American Tribes within IOU Service Territories.

The Renewable Microgrid project benefits the District through reduced GHG emissions to facilitate Climate Action Plan progress, as well as TAMT Mitigation Measure GHG-6, cost savings through demand response and peak shaving of District energy loads resulting in reduced electric utility expenses, and increased energy security and resiliency at the TAMT by providing back-up power to District operated facilities, including security infrastructure, site lighting and the existing jet fuel pump.

A NOPA was released by the CEC on February 20, 2018, that identified the District’s project as receiving an award in the amount of \$4,985,272. Combined with an in-kind match from the District and UCSD in the amount of \$4,629,936, the estimated project cost is \$9,615,208. Staff is negotiating with the CEC on grant terms and conditions to be brought to the Board at a future date.

The Second Addendum to the TAMT Final EIR is the necessary first step to project implementation (Attachment B). The Environmental Review section includes more information on the Second Addendum to the TAMT Final EIR. Additional details of the subsequent steps/processes are included in the Next Steps section below.

### The Tenth Avenue Marine Terminal Renewable Microgrid Description

The Final EIR thoroughly analyzed the potential environmental effects of the TAMT Redevelopment Plan and recommended extensive mitigation measures to avoid or reduce the Project’s potential significant impacts on the environment. The mitigation measures adopted by the Board when it certified the Final EIR, including Mitigation Measure GHG-6, are set forth in the MMRP. Based on preliminary estimates, Warehouse B has the capacity to support approximately 3.1 megawatts of solar PV. Based on available roof areas, Warehouse C has the capacity to support approximately 1 megawatt of solar PV. At this time the District is proposing to implement the Renewable Microgrid described below as partial implementation of Mitigation Measure GHG-6: “Implement a renewable energy project or purchase the equivalent GHG offsets from a California Air Resources Board Approved Registry or a Locally Approved Equivalent Program for Future Operations Associated with the TAMT Plan.”

The following components are part of the Renewable Microgrid that will be installed and implemented at the TAMT:

- 1) Retrofit the roof at TAMT Warehouse B estimated at approximately 291,000 SF or Warehouse C estimated at approximately 388,000 SF;
- 2) Retrofit existing high mast lighting (approximately 29 light poles) within the eastern areas of the terminal to energy efficient site lighting, for an estimated savings of 280,000 kilowatt hours per year;
- 3) Install a 700 kilowatt (kW) solar PV system on Warehouse B or Warehouse C that would be approximately between 30,000 and 60,000 SF in size;
- 4) Install a 700 kW / 2,500 kilowatt hour (kWh) ground-mounted battery system, consisting of one 40-foot and one 20-foot shipping containers (approximately 600 SF in area / 8 feet in height), a new 2,500 kilo-volt-ampere (KVA) pad-mounted transformer (approximately 50 SF / 3 feet in height), and four new sections of 480 volt (V) switchgear (approximately 150 SF / 5 feet in height);
- 5) Perform minor trenching and repaving (approximately 4 feet in depth and up to 300 feet in length depending upon final siting of associated equipment) to install a new duct bank that connects to the District's existing distribution system; and
- 6) Install various electrical upgrades, such as solar inverters and switches into existing manholes.

### Next Steps

Should this Second Addendum be approved by the Board, staff anticipates the following next steps:

- Staff will provide the CEC with the approved Second Addendum to the TAMT Final EIR, which addresses the Renewable Microgrid's design details noted above;
- Staff and the CEC will complete negotiations on the grant terms and conditions;
- The Final Agreement Package will be brought to the CEC May 9, 2018 Business Meeting for approval; and
- Staff will bring the Final Agreement Package to the June 12, 2018 Board meeting.

### Conclusion and Recommendations

Staff recommends the Board approve the Second Addendum to the Final EIR for the TAMT Redevelopment Plan and Demolition and Initial Rail Component and approve installation of a Renewable Microgrid at the Tenth Avenue Marine Terminal. The Renewable Microgrid implements a mitigation measure identified in the TAMT Final EIR's MMRP and would not result in new or more severe impacts, nor would it result in any new mitigation measures. Furthermore, no changes have occurred with respect to circumstances surrounding the Renewable Microgrid and no new information that was not previously known would require additional environmental review.

### **General Counsel's Comments:**

The Office of the General Counsel reviewed this agenda as to form and legality.

### **Environmental Review:**

In accordance with the CEQA statutes and guidelines, the Renewable Microgrid implements Mitigation Measure GHG-6, which was analyzed in the Final EIR for the TAMT Redevelopment Plan and Demolition and Initial Rail Component Project (SCH No. 2015-031046), incorporated herein by reference. The “Final Environmental Impact Report for the Tenth Avenue Marine Terminal Redevelopment Plan and Demolition and Initial Rail Component Project,” dated December 2016, is on file in the Office of the District Clerk bearing Clerk Document No. 65901 and is available for review at the Port of San Diego, Office of the District Clerk, 3380 N. Harbor Drive, San Diego, CA 92101 or on the Port’s websites below:

**Tenth Avenue Marine Terminal (TAMT) Redevelopment Plan and Demolition and Initial Rail Component Final Environmental Impact Report**

- Part1:<<https://www.portofsandiego.org/environment/environmental-downloads/land-use-planning/8008-tamt-redevelopment-plan-and-demolition-and-initial-rail-component-final-eir-part-1-executive-summaryerrata-and-revisions-comments-and-responses-and-mmpr/file.html>>
- Part2:<<https://www.portofsandiego.org/environment/environmental-downloads/land-use-planning/8009-tamt-redevelopment-plan-and-demolition-and-initial-rail-component-final-eir-part-2-mmpr-and-reviseddraft-eir/file.html>>
- Part3:<<https://www.portofsandiego.org/environment/environmental-downloads/land-use-planning/8010-tamt-redevelopment-plan-and-demolition-and-initial-rail-component-final-eir-part-3-revised-technicalappendices-a-through-i/file.html>>
- Part4:<<https://www.portofsandiego.org/environment/environmental-downloads/land-use-planning/8011-tamt-redevelopment-plan-and-demolition-and-initial-rail-component-final-eir-part-4-revised-technicalappendices-j-through-k-attachment-4-and-attachment-5/file.html>>

On December 13, 2016, the Board adopted Resolution No. 2016-199 certifying the Final EIR, adopting Findings of Fact and Statement of Overriding Considerations, and adopting the Mitigation Monitoring and Reporting Program. The Final EIR included a programmatic analysis of the TAMT Redevelopment Plan’s Sustainable Terminal Capacity Alternative, as well as a project-level analysis of the Demolition and Initial Rail Component Project. The programmatic analysis of the TAMT Redevelopment Plan’s Sustainable Terminal Capacity Alternative identifies “Mitigation Measure GHG-6”, which requires the implementation of renewable energy projects or the purchase of greenhouse gas (GHG) offsets from a California Air Resources Board approved registry or a locally approved equivalent program which will achieve full an annual reduction of 18,206 MTCO<sub>2e</sub> by full buildout of the TAMT Redevelopment Plan in 2035. Mitigation Measure GHG-6 was adopted and is included in the Mitigation Monitoring and Reporting Program adopted by the Board. The Renewable Microgrid implements a renewable energy project as identified in the mitigation measure and helps to satisfy a portion of the GHG reduction target required for plan buildout by year 2035.

An Addendum to the Final EIR has been prepared because the specific design of the Renewable Microgrid was not known at the time the Final EIR was certified. However, since that time, the Renewable microgrid has been designed to include: (1) Retrofitting

the roof at TAMT Warehouse B (approximately 291,000 SF in size) or Warehouse C (approximately 388,000 SF in size); (2) Retrofitting existing high mast lighting (approximately 29 light poles) within the eastern areas of the terminal to energy efficient site lighting, for an estimated savings of 280,000 kilowatt hours per year; (3) Installation of a 700 kilowatt (kW) solar PV system on Warehouse B or Warehouse C that would be approximately between 30,000 and 60,000 SF in size; (4) Installation of 700 kW hour (kWh) ground-mounted battery system, consisting of one 40-foot and one 20-foot shipping container (approximately 600 SF in area / 8 feet in height), a new 2,500 kilovolt-ampere (KVA) pad-mounted transformer (approximately 50 SF / 3 feet in height), and four new sections of 480 volt (V) switchgear (approximately 150 SF / 5 feet in height); and (6) Installation of various electrical upgrades, such as solar inverters and switches into existing manholes.

Pursuant to CEQA Guidelines Section 15168(c), subsequent activities in a program must be examined in light of the program EIR to determine whether an additional environmental document must be prepared. If the District finds that pursuant to CEQA Guidelines Section 15162, no new effects could occur or no new mitigation measures would be required, the District can approve the activity as being within the scope of the project covered by the Final EIR and no new environmental document is required.

CEQA Guidelines Section 15162(a) states: When an EIR has been certified for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

Discussion: As discussed in Section 3 of the Addendum, no substantial changes are proposed to the Project which would result in new significant effects or an increase in the severity of previously identified significant effects. As such, major revisions to the previous EIR are not required to reflect the proposed Project change.

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant effects or a substantial increase in the severity of previously identified significant effects.

Discussion: Although design and construction details associated with implementing Mitigation Measure GHG-6 and installing a Renewable Microgrid now available were not available when the Final EIR was certified, as identified in Section 3 of the Addendum, this change in circumstance does not involve any new significant effects or a substantial increase in the severity of previously identified significant effects.

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete shows any of the following:

- A) The project will have one or more significant effects not discussed in the previous EIR; or



Discussion: While the design of a Renewable Microgrid has occurred since certification of the Final EIR, as discussed in Section 3 of the Addendum, no new significant effects would be associated with the proposed design.

- B) Significant effects previously examined will be substantially more severe than shown in the previous EIR; or

Discussion: While design of the Renewable Microgrid has occurred since certification of the Final EIR, as discussed in Section 3 of the Addendum, no significant impacts would be substantially more severe than previously analyzed and disclosed in the Final EIR.

- C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

Discussion: While design of the Renewable Microgrid has occurred since certification of the Final EIR, as discussed in Section 3 of the Addendum, no mitigation measures or alternatives previously found not to be feasible would in fact be feasible.

- D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Discussion: As discussed in Section 1 and Section 3 of the Addendum, the Renewable Microgrid implements Mitigation Measure GHG-6 in accordance with the Final EIR. Therefore, the mitigation measures identified in the Final EIR would be the same and no new mitigation measures or alternatives have been identified that would substantially reduce one or more significant effects on the environment.

Based on these determinations, which are supported by substantial evidence in the administrative record, Staff has reviewed the updated Project and has determined:

- (1) The Renewable Microgrid is identified as a mitigation measure for in the Final EIR, and is therefore within the scope of the Final EIR;
- (2) There will not be any new or more severe significant impacts or required mitigation measures not previously identified in the Final EIR and MMRP previously adopted by the Board;
- (3) None of the conditions described in State CEQA Guidelines Section 15162 which would require the preparation of a subsequent EIR have occurred; and
- (4) Only minor technical changes or additions to the Final EIR are necessary.

As such, pursuant to CEQA Guidelines Section 15164, the analysis for the Project has been appropriately addressed in an Addendum to the Final EIR. If the Board approves the Addendum to the Final EIR, staff will file a Notice of Determination pursuant to CEQA Guidelines Section 15094.

In addition, the proposed Board action complies with Section 87 of the Port Act, which allows for (1) the establishment, improvement, and conduct of a harbor, and for the construction, reconstruction, repair, maintenance, and operation of wharves, docks,



piers, slips, quays, and all other works, buildings, facilities, utilities, structures, and appliances incidental, necessary, or convenient, for the promotion and accommodation of commerce and navigation. The Port Act was enacted by the California Legislature and is consistent with the Public Trust Doctrine. Consequently, the proposed Board action is consistent with the Public Trust Doctrine.

Finally, the proposed Board action is considered “excluded development” pursuant to Sections 8.a. (Existing Facilities), 8.b (Replacement or Reconstruction) and/or 8.c (New Construction or Conversion of Small Structures) of the District’s Coastal Development Permit (CDP) Regulations because it involves minor alterations involving negligible expansion of the existing use and will have substantially the same purpose and capacity as the existing facilities; therefore, issuance of a CDP is not required.

### **Equal Opportunity Program:**

Not applicable.

### **PREPARED BY:**

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### **Attachment(s):**

Attachment A:	Tenth Avenue Marine Terminal Redevelopment Plan and Demolition and Initial Rail Component Final EIR Mitigation Monitoring and Reporting Program (MMRP)
Attachment B:	Second Addendum to Final Environmental Impact Report, Tenth Avenue Marine Terminal Redevelopment Plan and Demolition and Initial Rail Component – Implementation and Installation of A Renewable Microgrid at the Tenth Avenue Marine Terminal
Attachment C:	Draft Resolution for Second Addendum to Final EIR
Attachment D:	Draft Resolution

<sup>1</sup> Greenhouse Gas Emission (or CO<sub>2</sub>e) reductions are calculated by estimating the number of kilowatt hours that would be reduced, based on the overall composition of the electrical grid that was identified in the Final EIR’s baseline analysis. Therefore, the 361 MTCO<sub>2</sub>e reduction assumed in this analysis is based on the SDG&E electrical grid composition that was in place during the Final EIR’s baseline, which averaged the 2013 renewable portfolio standard of 24% with the 2014 renewable portfolio standard of 32.2%. This yields an estimate of approximately 28.1% renewable resources, with a conversion rate of 699.5 pounds per megawatt hour. The Renewable Microgrid reductions are attributed to the use of 100% renewable energy and battery storage which provide a net annual energy reduction of approximately 858,000 kWh (272.23 MT CO<sub>2</sub>e) and reduction in energy consumption through lighting energy efficiency measures of approximately 280,000 kWh (88.84 tons of CO<sub>2</sub>e).