



COUNCIL AGENDA: 9/25/18  
FILE: 10-1255  
ITEM: 2.8

# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Kerrie Romanow

**SUBJECT: PURCHASE OF CALIFORNIA  
CARBON ALLOWANCES**

**DATE:** September 4, 2018

Approved

Date

9-5-18

## RECOMMENDATION

Adopt a resolution authorizing the City Manager to negotiate and execute an agreement between the City of San José and Vitol, Inc., for the purchase of California Carbon Allowances for the San José-Santa Clara Regional Wastewater Facility (RWF) to fulfill the compliance obligation under the California Cap-and-Trade Program, for an amount of \$295,728.

## OUTCOME

Execution of this contract will allow the RWF to complete its regulatory compliance obligation under the California Cap-and-Trade Program through the purchase of California Carbon Allowances.

## BACKGROUND

The Global Warming Solutions Act of 2006, or Assembly Bill (AB) 32, is a California State Law that fights climate change by establishing a comprehensive program to reduce greenhouse gas emissions from all sources throughout the state. AB 32 requires the California Air Resources Board (CARB) to develop regulations and market mechanisms to reduce California's greenhouse gas (GHG) emissions to 1990 levels by the year 2020. The target reduction represents a 25% reduction statewide. The market mechanism for reducing GHG emissions is California's Cap-and-Trade program (CATP) which includes an emissions cap for significant emissions sources beginning in 2012. GHGs include methane, nitrous oxide, and carbon dioxide. Emissions are presented in carbon dioxide equivalents (CO<sub>2</sub>e), a standardized measure that allows the effect of different greenhouse gases to be compared using carbon dioxide as a standard unit for reference. The CO<sub>2</sub>e measurement is given in metric tons per year for greenhouse gas reporting.

Facilities that emit more than 10,000 metric tons per year are subject to mandatory reporting. Facilities that emit 25,000 metric tons per year of CO<sub>2</sub>e are required to participate in California's CATP.

CATP is a market-based regulation that is designed to reduce GHGs from multiple sources by creating a market to trade GHG emission credits among those facilities that are part of the program.

Once a facility enters the CATP, it is responsible for the purchase of California Carbon Allowances (CCA) for the emissions for all years within the compliance period in which it exceeded the threshold, plus emissions during the following compliance period, regardless of total emissions. The CATP is divided into three compliance periods between now and 2020:

- 1st Compliance Period: 2013-2014
- 2nd Compliance Period: 2015-2017
- 3rd Compliance Period: 2018-2020

In 2013, the Regional Wastewater Facility (RWF) emitted 25,029 metric tons of CO<sub>2</sub>e and entered the CATP. Prior to 2013, the RWF ran its engines on a blend of digester gas produced as part of the RWF's processes, landfill gas purchased from Republic Services' nearby landfill, and natural gas purchased from PG&E. Biomass fuel such as digester and landfill gas are exempt from the CATP. In 2013, the RWF increased its purchase of natural gas due to interruptions in the digester gas and landfill gas supplies. The increased demand for natural gas caused RWF emissions to exceed 25,000 metric tons of CO<sub>2</sub>e. To comply with the CATP, the City entered into an agreement with Vitol Inc. to purchase CCAs for emissions from calendar years 2013 through 2016 as presented in the following table.

<b>Emissions Year</b>	<b>Emissions (metric tons CO<sub>2</sub>e)</b>	<b>Allowance Price</b>	<b>Total Allowance Cost</b>
2013	25,029	12.25	\$306,605.25
2014	24,752	12.75	\$315,460.50
2015	24,433	12.93	\$303,692.00
2016	19,693	15.20	\$303,437.60

## **ANALYSIS**

Once a facility enters the CATP, CCAs are surrendered each year irrespective of whether the emissions for each subsequent year are less than the 25,000-metric ton CO<sub>2</sub>e threshold. The requirement to purchase CCAs is eliminated only after two compliance periods, during which the facility remains beneath the cap during each year of both compliance periods. The second compliance period of RWF emissions less than 25,000 MT per year ended in 2017. Thus, the RWF will be relieved of its obligation to purchase CCAs after surrendering CCAs for the 2017 emissions year.

RWF emitted an estimated 19,392 metric tons of CO<sub>2</sub>e in 2017. This number has been reported to CARB, as required, and was verified by a Third-Party Verification Audit conducted by Rincon Associates.

CCAs are sold on the open market through mechanisms established by the California Air Resources Board. The RWF is working with an emissions broker and has again identified Vitol, Inc., as a seller of 2017 credits. Vitol, Inc. will contract with the City \$15.25 per CCA, which was determined by the market price for the credits. This is an increase compared to previous years and is a result of increased market demand. The final purchase agreement will be for \$295,728, which is slightly lower than last year's expenditure, due to a continued decrease in emissions from the RWF. The total cost to purchase CCAs for the second compliance period (years 2015 through 2017) is \$910,000.

The RWF has implemented a GHG emissions management program to stay under the 25,000 metric tons of CO<sub>2</sub>e threshold, and has successfully done so since 2013, with 2017 being the lowest emissions total so far. Therefore, the RWF will exit the CATP after surrendering allowances for 2017 emissions. The upgraded Digester and Thickener Facilities and Cogeneration Facility projects are anticipated to come online in late 2019/early 2020 and will enable increased production and more efficient use of biogas. The effect of these upgrades on emissions and the provisions of the extended CATP, set to begin in 2021, are currently being evaluated to determine how to manage GHG emissions after 2019.

### **EVALUATION AND FOLLOW-UP**

The RWF emitted less than the 25,000-metric ton threshold in 2017 and will therefore exit the cap and trade after surrendering allowances for 2017 emissions. The RWF will manage natural gas consumption to remain below the 25,000 MT cap and trade threshold through at least 2019. Options for energy supply and demand for energy following the ongoing facility upgrades are being evaluated. The potential on applicability of the extended cap and trade program will be presented in the future.

### **PUBLIC OUTREACH/INTEREST**

This memorandum will be posted on the City's Council Agenda website for the September 25, 2018 City Council Meeting.

### **COORDINATION**

The memorandum has been coordinated with the Treatment Plant Advisory Committee, City Manager's Budget Office, and the City Attorney's Office.

**COMMISSION RECOMMENDATION**

This memorandum will be heard at the September 13, 2018 Treatment Plant Advisory Committee.

**COST SUMMARY/IMPLICATIONS**

1. AMOUNT OF RECOMMENDATION/AGREEMENT: \$ 295,728
2. SOURCE OF FUNDING: San José-Santa Clara Treatment Plant Operating Fund (513)
3. FISCAL IMPACT: No additional funding is necessary to approve this purchase.

**BUDGET REFERENCE**

The table below identifies the fund and appropriations proposed to fund the agreement recommended as part of this memorandum.

<b>Fund #</b>	<b>Appn. #</b>	<b>Appn. Name</b>	<b>Total Appn.</b>	<b>Amount Requested</b>	<b>2018-2019 Proposed Operating Budget* Page</b>	<b>Last Budget Action (Date, Ord. No.)</b>
513	0762	NP/EQUIP-ENVIRONMENTAL SVCS	\$28,440,251	\$295,728	X-81	6/19/2018 30124

\* The 2018-2019 Operating Budget was adopted on June 19, 2018

**CEQA**

Not a Project, File No. PP17-003, Agreements/Contracts (New or Amended) resulting in no physical changes to the environment.

/s/ Napp Fukuda for  
KERRIE ROMANOW  
Director, Environmental Services

For questions please contact Ken Davies, Sustainability and Compliance Manager, at (408) 975-2587.