



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



GOVERNING BOARD

Buddy Mendes, Chair
Supervisor, Fresno County

J. Steven Worthley, Vice Chair
Supervisor, Tulare County

David Ayers
Mayor, City of Hanford

Drew M. Bessinger
Councilmember, City of Clovis

John Capitman, Ph.D.
Appointed by Governor

David Couch
Supervisor, Kern County

Bob Elliott
Supervisor, San Joaquin County

Christina Fugazi
Councilmember, City of Stockton

Kristin Olsen
Supervisor, Stanislaus County

Lloyd Pareira
Supervisor, Merced County

Craig Pedersen
Supervisor, Kings County

Monte Reyes
Councilmember, City of Porterville

Alexander C. Sherriffs, M.D.
Appointed by Governor

Chris Vierra
Mayor, City of Ceres

Tom Wheeler
Supervisor, Madera County

Samir Sheikh
Executive Director
Air Pollution Control Officer

Northern Region Office
4800 Enterprise Way
Modesto, CA 95356-8718
(209) 557-6400 • FAX (209) 557-6475

Central Region Office
1990 East Gettysburg Avenue
Fresno, CA 93726-0244
(559) 230-6000 • FAX (559) 230-6061

Southern Region Office
34946 Flyover Court
Bakersfield, CA 93308-9725
(661) 392-5500 • FAX (661) 392-5585

DATE: October 18, 2018

TO: SJVUAPCD Governing Board

FROM: Samir Sheikh, Executive Director/APCO
Project Coordinator: Brian Dodds

RE: **ITEM NUMBER 10: ACCEPT AND APPROPRIATE
\$37,998,890 IN STATE CAP AND TRADE
FUNDING FOR TWO ZERO AND NEAR-ZERO
EMISSIONS DEMONSTRATION PROJECTS**

RECOMMENDATIONS:

1. Accept \$37,998,890 from the California Air Resources Board to fund two zero and near-zero emission heavy-duty demonstration projects in the San Joaquin Valley.
2. Approve the attached Budget Resolution to amend the 2018-19 District Budget to appropriate \$37,998,890 in unanticipated revenue.
3. Authorize the Executive Director/Air Pollution Control Officer (APCO), on behalf of your Board, to negotiate and enter into any agreements with ARB to accept and administer this funding.
4. Authorize the Executive Director/APCO, with Board Chair signature as required, to negotiate and enter into any agreements with subcontractors, as necessary, to administer this funding.

BACKGROUND:

On July 19, 2018, the District submitted two proposals to the California Air Resources Board in response to the highly competitive Zero and Near-Zero Emission Freight Facilities Program solicitation. This program is funded with a combination of Low Carbon Transportation (Cap and Trade) Funding as well as Trade Corridor Enhancement Account funds. CARB's goal under the Zero-and Near-Zero Emission Freight Facility Project solicitation is to support bold, transformative

emission reduction strategies that can be emulated throughout freight facilities statewide. These projects are intended to reduce criteria pollutants, toxic air contaminants, and greenhouse gas (GHG) emissions in and around freight facilities and provide economic, environmental, and public health benefits to disadvantaged and low-income communities.

On September 17, 2018, the District was notified by CARB that our two proposals were each selected for full funding under this solicitation for a total of \$37,998,890 and were the highest ranked proposals in the entire state. Approval of today's recommendations will increase the District's 2018-19 Budget by up to \$37,998,890, including up to 5% in administrative funding to fully offset the District's costs, and authorize the District to implement these two innovative and transformative demonstration projects.

DISCUSSION:

Businesses in the San Joaquin Valley are already subject to the most stringent air quality regulations in the nation. Over the past 20 years, Valley businesses have invested billions of dollars to comply with increasingly rigorous regulatory requirements. While the Valley's ozone and PM2.5 precursors are at historically low levels through decades of implementing the most stringent stationary and mobile regulatory control program, meeting the latest PM2.5 standards requires enormous additional reductions in emissions in relatively short timeframes, particularly in mobile sources. Because the District does not have direct regulatory authority over tailpipe emissions from mobile sources, significant investment in the demonstration of emerging zero and near-zero technology is increasingly important in the San Joaquin Valley. As further evidence of the District's commitment in this area to encourage innovation and demonstrate new technology, the District submitted two proposals and was awarded \$37,998,890 in funding under CARB's Zero and Near Zero-Emission Freight Facilities competitive grant solicitation. The project partners and technology providers have committed to provide the required match funding and, as such, the District is not contributing District funding to these projects.

Flexible Solutions for Freight Facilities – San Joaquin Valley Zero and Near-Zero Emission Enabling Freight Project

Total Project Cost:	\$45,237,319
State Grant Amount:	\$22,616,647
Partner Match Funding:	\$22,620,672 (\$9,826,923 cash; \$12,793,749 in-kind)

In this project, the District will demonstrate with BNSF Railway a single Battery Electric Locomotive (BEL) that will be deployed in a diesel consist (multiple locomotives that pull a train) running from Stockton to Barstow in commercial operations. The BEL will improve the fuel efficiency of the entire consist and thereby reduce operating costs

while simultaneously reducing criteria pollutant and greenhouse gas emissions. In addition, the following zero-and near-zero equipment will be demonstrated at the company's intermodal yards in Stockton and San Bernardino:

- Hybrid-electric rubber-tire gantry
- Full-electric side loader
- Full-electric Class 8 drayage truck
- Electrical upgrades and electric vehicle supply equipment

The primary goal of BEL operation will be optimizing fuel efficiency in a hybrid locomotive consist. In addition, the proposed hybrid consist can operate in near-zero emission mode in select areas and will act as a highly visible model to further transform technology that could lead to decreased reliance on diesel. The project includes equipment testing, a one-year demonstration period, data collection, and associated reporting. The District anticipates the various equipment to be rolled out at different times to complete the demonstration, with full project completion in early 2021. The District will serve as the lead entity for this project and will establish necessary agreements with project partners on the deployment of the project. The project partners will play the following roles in implementing this project:

- **BNSF Railway** – Railroad company that owns and operates railways and intermodal facilities of interest that will feature the new locomotive technology; will deploy BEL; communicating all performance data and potential needs with GE Transportation in real time.
- **ITS ConGlobal** – BNSF's primary operations service provider; operating the BEL for switching, engine repositioning; crane and side loader operations and maintenance.
- **SH&H** – Drayage truck operator that will utilize trucks by technology provider, BYD, to integrate emission-free trucking into the intermodal goods movement operation; this partnership will closely monitor the function of the trucking portion of this project.
- **GE Transportation** – Industrial leader and supplier developing the BEL that BNSF will use for locomotive operations between Barstow & Stockton; providing technological expertise on system integration of battery technology, AC traction, inverter, V-speed technology and digital product enhancements like trip optimizer and smart horsepower per ton.
- **Mi-Jack** - Technology provider for the hybrid RTG, central to the intermodal transfer process; providing application and implementation support as well as ongoing operations training.
- **BYD** - Technology provider for the electric on-road trucks to be deployed at San Bernardino; lending technology and operational support to SH&H (truck operators).
- **Southwest Research Institute (SwRI)** - Entity responsible for data collection, which is critical for establishing and certifying the zero-emission expectations for

this technology to accurately account for emissions reductions compared to diesel technologies.

- **Café Coop** - The Community Based Organization (CBO) will implement a community outreach plan through public outreach, technology demonstrations, media announcements, and workshops.

Frito-Lay Zero- and Near-Zero Emission Freight Facility Project

Total Project Cost:	\$30,764,486
State Grant Amount:	\$15,382,243
Project Match Funding:	\$15,382,244 (\$12,018,097 cash; \$3,364,147 in-kind)

In this project, the District will demonstrate with Frito-Lay, a division of PepsiCo, in Modesto California; a bold and transformative effort that will yield a world-renowned showcase for economically and environmentally sustainable manufacturing, warehousing and distribution. The project aims to completely replace the use of all diesel-powered freight equipment within one of Frito-Lay's largest food facilities. This will be accomplished via the use of zero-and near-zero technologies and renewable fuels. The equipment to be demonstrated in the project are:

- 15 heavy-duty Tesla battery electric trucks
- 6 Peterbilt e220 battery electric straight trucks
- 3 battery electric BYD yard trucks
- 12 Iron-Phosphate battery electric BYD forklifts
- 38 Volvo trucks fueled with ultra-low carbon renewable natural gas
- On-site renewable energy generation (solar PV)
- Energy storage systems from Tesla
- Electric vehicle supply equipment
- A publicly accessible renewable natural gas fueling station

The project's objective is to demonstrate the operational, economic and environmental sustainability benefits of zero- and near-zero technology at freight facilities and warehouses that can be emulated throughout the state. The project includes equipment testing, a one-year demonstration period, data collection, and associated reporting. The District anticipates the various equipment to be rolled out at different times to complete the demonstration, with full project completion in early 2021. The District will serve as the lead entity for this project and will establish necessary agreements with the appropriate project partners. The project partners will play the following roles in implementing this project:

- **Frito-Lay** - End-user that will procure the zero and near-zero emission trucks and energy systems for its Modesto site; responsible for all project implementation and operations.

- **Tesla** - Original Equipment Manufacturer (OEM) will deliver 15 highly anticipated Tesla Semis along with battery electric truck charging infrastructure, a large-scale solar PV system, and two energy storage systems for facility peak shaving and heavy-duty electric truck charging.
- **Peterbilt with Meritor** –OEM that will deliver 6 innovative Class-6 zero emission e220 trucks.
- **BYD** - OEM to deliver 3 zero-emission yard tractors and battery electric forklifts.
- **ANG** - Fuel provider that will design and build a CNG station to dispense renewable natural gas.
- **CALSTART** - Nonprofit that will perform project management functions in support of SJVAPCD and will be responsible for Data Collection and Analysis including Emissions Testing.
- **University of California, Riverside** - Will provide support for the emission testing, analysis, and impact assessment for zero emissions technology replacement.
- **Gladstein, Neandross & Associates** - Project development consulting firm that will assist Frito Lay in the overall coordination, implementation and B2B marketing of this diverse cutting-edge project.
- **Project Clean Air** - Nonprofit that will assist in public outreach and stakeholder engagement.
- **Café Coop** - This CBO will implement its community outreach plan through public outreach, technology demonstrations, media announcements, and workshops.

Approval of this item today will authorize the Executive Director/APCO to negotiate and enter into agreements, on behalf of your Board, with ARB, and other subcontractors, as necessary, to implement these innovative zero and near-zero emissions heavy-duty demonstration projects in the San Joaquin Valley.

FISCAL IMPACT:

Approval of the attached Budget Resolution will increase the District's 2018-19 Budget revenues and appropriations in the amount of \$37,998,890. CARB will provide up to 5% of each grant amount to offset the District's cost to administer these programs.

Attachment: Budget Resolution (4 pages)

San Joaquin Valley Unified Air Pollution Control District
Meeting of the Governing Board
October 18, 2018

**ACCEPT AND APPROPRIATE \$37,998,890 IN STATE
CAP AND TRADE FUNDING FOR TWO ZERO AND
NEAR-ZERO EMISSIONS DEMONSTRATION PROJECTS**

Attachment:

Budget Resolution
(4 PAGES)

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

**BEFORE THE GOVERNING BOARD OF THE
SAN JOAQUIN VALLEY UNIFIED
AIR POLLUTION CONTROL DISTRICT**

IN THE MATTER OF INCREASING THE
2018/19 DISTRICT BUDGET \$37,998,890
FOR THE RECEIPT OF CAP AND TRADE
REVENUE FROM THE CALIFORNIA AIR
RESOURCES BOARD TO IMPLEMENT TWO
ZERO AND NEAR-ZERO EMISSION HEAVY-DUTY
DEMONSTRATION PROJECTS IN THE
SAN JOAQUIN VALLEY

RESOLUTION NO. _____

WHEREAS, The San Joaquin Valley Unified Air Pollution Control District (District)
is a duly constituted unified district, as provided in California Health and Safety Code
sections 40150 to 40161, and;

WHEREAS, the District is authorized by California Health and Safety Code section
40702 to make and enforce all necessary and proper orders, rules and regulations to
accomplish the purpose of Division 26 of the Health and Safety Code, and;

WHEREAS, the District submitted proposals in response to the California Air
Resources Board's (CARB's) March 28, 2018 Zero- and Near-Zero Emission Freight
Facilities Project grant solicitation funded with Low Carbon Transportation (Cap and
Trade) Funding and Trade Corridor Enhancement Account funds, and

WHEREAS, on October 8, 2018, CARB notified the District that two proposals were
preliminarily selected for funding, including the Flexible Solutions for Freight Facilities –
San Joaquin Valley Zero and Near-Zero Emission Enabling Freight Project and the Frito-
Lay Zero- and Near-Zero Emission Freight Facility Project;

WHEREAS, the District is authorized to participate in, and agrees to comply with
the solicitation requirements; and

WHEREAS, the District has agreed to administer and implement the CARB-funded
projects in the amount of \$37,998,890 and;

WHEREAS, monies for the ARB-funded projects were not reflected in the
Appropriations and Estimated Revenues of the 2018/19 District Budget, and;

NOW, THEREFORE, IT IS ORDERED THAT the District's Director of Administrative Services is authorized to increase the 2018/19 District Budget as follows:

APPROPRIATIONS:

NON-OPERATING - INCENTIVE PROGRAMS

ARB – Flexible Solutions for Freight Facilities 558-8585-350-100	<u>\$21,516,647</u>
---	---------------------

ARB – Frito-Lay Freight Facility 559-8586-350-100	<u>\$14,612,243</u>
--	---------------------

ARB – Frito-Lay Freight Facility - Admin 559-8586-170-100	<u>\$ 385,000</u>
--	-------------------

TOTAL INCENTIVE PROGRAMS	<u>\$36,513,890</u>
--------------------------	---------------------

TOTAL APPROPRIATIONS	<u>\$36,513,890</u>
----------------------	---------------------

BE IT FURTHER RESOLVED THAT, the Director of Administrative Services is ordered to adjust the following:

DISTRICT RESERVES:

F/B Reserve 100-3090-000-100	<u>\$ 1,485,000</u>
---------------------------------	---------------------

TOTAL RESERVES INCREASED	<u>\$ 1,485,000</u>
--------------------------	---------------------

BE IT FURTHER RESOLVED THAT the estimated revenues for the 2018/19 District Budget be adjusted as follows:

ESTIMATED REVENUES

NON-OPERATING REVENUE

ARB – Flexible Solutions for Freight Facilities 558-4610-350-100	<u>\$21,516,647</u>
---	---------------------

ARB – Frito-Lay Freight Facilities 559-4610-350-100	<u>\$14,612,243</u>
--	---------------------

ARB – Frito-Lay Freight Facilities - Admin 559-4495-170-100	<u>\$ 385,000</u>
--	-------------------

Admin Fees – ARB – Flexible Solutions for Freight Facilities 558-4495-160-100	<u>\$ 1,100,000</u>
--	---------------------

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

Admin Fees – ARB – Frito Lay Freight Facility 559-4495-160-100	<u>\$ 385,000</u>
TOTAL NON-OPERATING REVENUE	<u>\$ 37,998,890</u>
TOTAL ESTIMATED REVENUES	<u>\$ 37,998,890</u>

BE IT FURTHER RESOLVED THAT the estimated transfers for the 2018/19 District Budget be adjusted as follows:

OPERATING - TRANSFERS IN GENERAL FUND ADMIN EARNED 100-4720-000-100	<u>\$ 1,485,000</u>
OPERATING - TRANSFERS OUT PROGRAM ADMIN COSTS 558-9020-160-100	<u>\$ 1,100,00</u>
OPERATING - TRANSFERS OUT PROGRAM ADMIN COSTS 559-9020-160-100	<u>\$ 385,000</u>

Approved as to Accounting Form
By _____
Mehri Barati
Director of Administrative Services

THE FOREGOING was passed and adopted by the following vote of the Governing Board of the SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT this 18th day of October, 2018, to wit:

AYES:

NOES:

ABSENT:

SAN JOAQUIN VALLEY UNIFIED
AIR POLLUTION CONTROL DISTRICT

By _____

Ernest Buddy Mendes, Chair
Governing Board

ATTEST:

Clerk to the Governing Board

By _____

Michelle Franco