STATE OF CALIFORNIA

GRANT REQUEST FORM (GRF)

CEC-270 (Revised 12/2019) CALIFORNIA ENERGY COMMISSION

A) New Agreement # ARV-21-017 (to be completed by CGL office)

B) Division	Agreement Manager:	MS-	Phone
600 Fuels and Transportation Division	Alexander Wan	27	916-805-7477

C) Recipient's Legal Name	Federal ID #
Center for Transportation and the Environment, Inc.	58-2052891

D) Title of Project
NorCAL Drayage

E) Term and Amount

Start Date	End Date	Amount
07 / 15 / 2021	03 / 31 / 2026	$ 9,185,045

F) Business Meeting Information

☐ ARFVTP agreements $75K and under delegated to Executive Director

Proposed Business Meeting Date 07 / 15 / 2021 ☐ Consent ☒ Discussion

Business Meeting Presenter Marc Perry Time Needed: 5 minutes

Please select one list serve. Altfuels (AB118- ARFVTP)

Agenda Item Subject and Description:

CENTER FOR TRANSPORTATION AND THE ENVIRONMENT, INC.

1. CEQA Findings. Proposed resolution finding that based on: (a) East Bay Municipal Utility District's (EBMUD) 2011 Environmental Impact Report (EIR) for the Main Wastewater Treatment Plant Land Use Master Plan (State Clearinghouse #2009112073); (b) EBMUD's May 2021 EIR Addendum (which focuses on the hydrogen refueling station) to the 2011 EIR; and (c) the Center for Transportation and the Environment's representations, the proposed project presents no new significant or substantially more severe environmental impacts beyond those already considered. In addition, adopting staff's determination that a minor upgrade to an existing truck maintenance facility is exempt from CEQA.
2. Proposed resolution approving Agreement ARV-21-017 with the Center for Transportation and the Environment, Inc. for a $9,185,045 grant to construct and operate a hydrogen refueling station and to conduct workforce training and development and community outreach. The proposed hydrogen refueling station will be capable of supporting 22 fuel-cell electric, heavy-duty, Class-8 trucks in commercial operations around the Port of Oakland. The trucks are being funded by CARB.

G) California Environmental Quality Act (CEQA) Compliance

1. Is Agreement considered a "Project" under CEQA?

   ☒ Yes (skip to question 2) ☐ No (complete the following (PRC 21065 and 14 CCR 15378)):

   Explain why Agreement is not considered a "Project":

   Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because .

2. If Agreement is considered a "Project" under CEQA:

   a) ☐ Agreement **IS** exempt.

   ☐ Statutory Exemption. List PRC and/or CCR section number:

☒ Categorical Exemption. List CCR section number: Cal. Code Regs., tit. 14, § 15301 for truck maintenance facility only

☒ Common Sense Exemption. 14 CCR 15061 (b) (3) Explain reason why Agreement is exempt under the above section: The scope of work under grant agreement ARV-21-017 also includes modification to a truck maintenance facility at 1755 Adams Avenue in San Leandro, California. The facility requires third-party assessment and planning; changes to the construction of maintenance bay doors; and upgrades to existing monitoring and alarm systems, ventilation, and other electrical equipment. The CEQA exemption under California Code of Regulations, title 14, section 15301, "Existing Buildings," applies. Section 15301 covers the operation, maintenance, or minor alteration of existing public or private structures, facilities, mechanical equipment, involving negligible or no expansion of existing or former use. The modifications are for compliance with hydrogen-related requirements and would cause negligible or no expansion of the existing use. Therefore, the modifications will have no significant effect on the environment and are categorically exempt under section 15301.

Regarding the hydrogen refueling station, it is not exempt from CEQA. See next section regarding EIR.

b) ☒ Agreement **IS NOT** exempt. (consult with the legal office to determine next steps)

Check all that apply

☐ Initial Study
☐ Negative Declaration
☐ Mitigated Negative Declaration
☒ Environmental Impact Report
☐ Statement of Overriding Considerations

H) List all subcontractors (major and minor) and equipment vendors: (attach additional sheets as necessary)

Legal Company Name:	**Budget**
Hyundai Motor America (CARB Sub)	$ 28,550,032
Hyundai Motor America (CEC Sub)	$ 50,000
FirstElement Fuel Inc. (CEC Sub)	$ 11,694,000

I) List all key partners: (attach additional sheets as necessary)

Legal Company Name:
East Bay Municipal Utility District
West Oakland Environmental Indicators Project
Macquarie Equipment Capital Inc

J) Budget Information

STATE OF CALIFORNIA

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Funding Source	Funding Year of Appropriation	Budget List Number	Amount
ARFVTP	FY 19/20	601.118L	$9,135,045
ARFVTP	FY 20/21	601.118M	$50,000
Funding Source			$
Funding Source			$
Funding Source			$

R&D Program Area: Select Program Area TOTAL: $

Explanation for "Other" selection

Reimbursement Contract #: Federal Agreement #:

K) Recipient's Contact Information

1. Recipient's Administrator/Officer

Name: Jaimie Levin

Address: 2041 Bancroft Way, Ste 210

City, State, Zip: Berkeley, CA 94704-1405

Phone: (510) 851-0625

E-Mail: jaimie@cte.tv

2. Recipient's Project Manager

Name: Erik Brewer

Address: 730 Peachtree St NE, Ste 450

City, State, Zip: Atlanta, GA 30308

Phone: (678) 296-4763

E-Mail: brewer@cte.tv

L) Selection Process Used

☒ Competitive Solicitation Solicitation #: GFO-20-606

☐ First Come First Served Solicitation Solicitation #: - -

M) The following items should be attached to this GRF

1.	Exhibit A, Scope of Work		☒ Attached
2.	Exhibit B, Budget Detail		☒ Attached
3.	CEC 105, Questionnaire for Identifying Conflicts		☒ Attached
4.	Recipient Resolution	☒ N/A	☐ Attached
5.	CEQA Documentation	☐ N/A	☒ Attached

Alexander Wan 7/1/2021

Agreement Manager **Date**

Office Manager **Date**

Deputy Director **Date**

Additional subcontractors

Regents of the University of California, on behalf of the Berkeley Campus (CEC Sub)	$299,000
West Oakland Environmental Indicators Project (CEC Sub)	$99,000
Fiedler Group (CEC Sub)	$71,000
Bay Area Air Quality Management District (CARB Sub)	$6,104,000 (CARB Match)
TBD (For site engineering hydrogen station) (CEC sub)	$200,000
TBD (For hydrogen station entitlement and permitting services) (CEC sub)	$100,000
TBD (For construction of hydrogen station) (CEC sub)	$1,000,000
TBD (For maintenance facility upgrades) (CEC Sub)	$156,000
TBD (For maintenance door construction) (CEC Sub)	$100,000
Macquarie Equipment Capital Inc. (CARB Sub)	$3,430,762 (CARB Match)
Glovis America, Inc. (CEC sub)	$6,707
SSMB Pacific Holding Company, Inc. (CARB Sub)	$455,335
SSMB Pacific Holding Company, Inc. (CEC Sub)	$299,293

Exhibit A
SCOPE OF WORK

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2		Truck Procurement
3	X	Hydrogen Station Development
4		Maintenance Facility Upgrades
5		Community Outreach
6	X	ZEV Workforce Plan
7		Vehicle Deployment Planning
8		Vehicle Operation
9		Hydrogen Station Operation
10	X	Data Collection and Analysis
11		Project Fact Sheet

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Jaimie Levin – CTE		
2	Jaimie Levin – CTE Mike Jeong - Hyundai Motor America Ben Happek – Hyundai Motor America Kristian Hansen – Glovis America, Inc.	Hyundai Motor America, Glovis America, Inc.	Macquarie Equipment Capital Inc.
3	Jaimie Levin – CTE Shane Stephens – FirstElement Fuel Inc. (FEFuel)	FEFuel	East Bay Municipal Utility District (EBMUD), Hydrogen Safety Panel (HSP)
4	Jaimie Levin – CTE Harry Mamizuka – SSMB Pacific Holding Company, Inc. (NorCal Kenworth) Patrick Fiedler – Fiedler Group	NorCal Kenworth, Fielder Group	

5	Jaimie Levin – CTE	Regents of the University of California, on behalf of the Berkeley Campus (UC Berkeley)	EBMUD, WOEIP
6	Jaimie Levin – CTE Mike Jeong – Huyndai Motor America Ben Happek – Hyundai Motor America Harry Mamizuka – NorCal Kenworth Kristian Hansen – Glovis America, Inc.	Hyundai Motor America, NorCal Kenworth, Glovis America, Inc.	
7	Jaimie Levin – CTE Mike Jeong – Hyundai Motor America Ben Happek – Hyundai Motor America Shane Stephens – FEFuel Harry Mamizuka – NorCal Kenworth Kristian Hansen – Glovis America, Inc.	Hyundai Motor America, FEFuel, NorCal Kenworth, Glovis America, Inc.	
8	Jaimie Levin – CTE Mike Jeong – Hyundai Motor America Ben Happek – Hyundai Motor America Kristian Hansen – Glovis America, Inc. Harry Mamizuka – NorCal Kenworth	Hyundai Motor America, Glovis America, Inc., NorCal Kenworth	
9	Jaimie Levin – CTE Shane Stephens – FEFuel Kristian Hansen – Glovis America, Inc.	FEFuel, Glovis America, Inc.	EBMUD

10	Jaimie Levin – CTE Tim Lipman – UC Berkeley	UC Berkeley	Hyundai Motor America, FEFuel, NorCal Kenworth, Glovis America, Inc.
11	Jaimie Levin – CTE		

GLOSSARY

Specific terms and acronyms used throughout this scope of work/work plan are defined as follows:

Term/ Acronym	**Definition**
AHJ	Authority Having Jurisdiction
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CI	Carbon Intensity
Clean Transportation Program	Formerly known as the Alternative and Renewable Fuel and Vehicle Technology Program
CPR	Critical Project Review
CTE	Center for Transportation and the Environment, Inc.
CUPA	Certified Unified Program Agency
EBMUD	East Bay Municipal Utility District
EVITP	Electric Vehicle Infrastructure Training Program
FTD	Fuels and Transportation Division
GHG	Greenhouse Gas
HSP	Hydrogen Safety Panel
H2	Hydrogen
NFPA	National Fire Protection Association
NREL	National Renewable Energy Laboratory
Recipient	Center for Transportation and the Environment
UC Berkeley	Regents of the University of California, on behalf of the Berkeley Campus
WOEIP	West Oakland Environmental Indicators Project
ZEV	Zero-Emission Vehicle

BACKGROUND

Assembly Bill (AB) 118 (Núñez, Chapter 750, Statutes of 2007), created the Clean Transportation Program (formerly known as the Alternative and Renewable Fuel and Vehicle Technology Program). The statute authorizes the California Energy Commission (CEC) to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state's climate change policies. AB 8 (Perea, Chapter 401, Statutes of 2013) re-authorizes the Program through January 1, 2024, and specifies that the CEC allocate up to $20 million per year (or up to 20 percent of each fiscal year's funds) in funding for hydrogen station development until at least 100 stations are operational. The Program has an annual budget of approximately $100 million and provides financial support for projects that:

- Reduce California's use and dependence on petroleum transportation fuels and increase the use of alternative and renewable fuels and advanced vehicle technologies.
- Produce sustainable alternative and renewable low-carbon fuels in California.
- Expand alternative fueling infrastructure and fueling stations.
- Improve the efficiency, performance, and market viability of alternative light-, medium-, and heavy-duty vehicle technologies.
- Retrofit medium- and heavy-duty on-road and non-road vehicle fleets to alternative technologies or fuel use.
- Expand the alternative fueling infrastructure available to existing fleets, public transit, and transportation corridors.
- Establish workforce training programs and conduct public outreach on the benefits of alternative transportation fuels and vehicle technologies.

The CEC and the California Air Resources Board (CARB) issued GFO-20-606 entitled "Zero-Emission Drayage Truck and Infrastructure Pilot Project" under the CEC's Clean Transportation Program and CARB's FY 2019-20 Funding Plan for Clean Transportation Incentives (FY 2019-20 Funding Plan). CEC funding will support zero-emission vehicle infrastructure and installation, and workforce training and development. CARB funding will be allocated towards the purchase of on-road zero-emission Class 8 trucks. Other costs associated with administrative and data collection tasks will be supported by either CEC or CARB. To be eligible for funding under GFO-20-606, the projects must also be consistent with the CEC's current Clean Transportation Program Investment Plan and CARB's FY 2019-20 Funding Plan for Clean Transportation Incentives (FY 2019-20 Funding Plan). In response to GFO-20-606, the Recipient submitted Proposal #6, which was proposed for funding in the CEC's Notice of Proposed Awards on April 5, 2021. GFO-20-606 is hereby incorporated by reference into this Agreement in its entirety.

In the event of any conflict or inconsistency between the terms of the Solicitation and the terms of the Recipient's Application, the Solicitation shall control. Similarly, in the event of any conflict or inconsistency between the terms of this Agreement and the Recipient's Application, the terms of this Agreement shall control.

NOTE: Designation of agency by task. "CEC Task" or "CEC Sub-task" means a task or sub-task for which the Recipient's grant agreement with CEC governs; where Recipient's performance is due to the CEC; and where Recipient's reimbursable costs fall under the budget for the CEC-funded work. "CARB Task" or "CARB Sub-task" means a task or sub-task for which the Recipient's grant agreement with CARB governs; where Recipient's performance is due to CARB; and where Recipient's reimbursable costs fall under the budget for CARB-funded work. "Joint CEC and CARB Task" or "Joint CEC and CARB Sub-task" means a task or sub-task for which the Recipient's performance is due to both the CEC and CARB. Cost allocation for joint tasks is specified in the budgets.

Problem Statement:

High-throughput clusters, like marine ports, concentrate harmful criteria pollutants like diesel particulate matter and oxides of nitrogen. Drayage and other freight movement activities prevalent at these clusters rely predominately on the use of diesel-fueled heavy-duty vehicles. A zero-emission alternative is needed for these high-output, high-utilization vehicles that is cost-competitive with diesel engines and operates with the same level of performance for a demanding duty cycle (high payload, long range, multiple shifts), to accelerate widespread adoption in commercial fleets thereby resulting in significant reductions in these harmful emissions. In order to meet California's emission reduction goals, these high performance, zero-emission vehicles must be placed on an accelerated timeline to commercial deployment.

The total cost of ownership for zero-emission alternatives to diesel engines needs to approach parity for increased utilization in commercial fleets that often operate on thin margins. For commercial vehicles with high-output and high-utilization, the cost of fuel can constitute approximately half of the total cost of ownership. The low initial utilization of hydrogen refueling infrastructure prior to sufficient demand from hydrogen fuel cell-powered vehicles makes it difficult to offer cost-competitive hydrogen fuel, yet the scarcity of affordable hydrogen fuel creates a barrier to adoption for operators managing commercial fleets. By scaling both the demand for and supply of hydrogen fuel in unison, this project can significantly reduce operating costs of hydrogen fuel cell equipment and take a major step towards diesel cost parity.

From the outset, the commercial deployment of zero-emission trucks and hydrogen refueling infrastructure must consider continued operation, scalability, and expansion to ensure long-term commercial viability and make material contributions to state emission reduction goals. This project could represent a major tipping point due to the

significant potential of marine ports to serve diverse and synergistic applications, including on-road vehicles, locomotives, marine vessels, and cargo handling equipment. Each of these applications can be served by the same primary refueling station resulting in continuously reduced operating costs as demand scales.

It is critical to demonstrate the effective operation of a tightly integrated zero-emission ecosystem now, starting with drayage trucks at the major marine ports in Northern California, to accelerate the establishment of a comprehensive hydrogen refueling network and associated competitive cost structure to support increased adoption of zero-emission hydrogen fuel cell electric trucks statewide. At a minimum, the proposed project will operate the fuel cell electric trucks and hydrogen refueling infrastructure for six years, and expanded adoption of these vehicles statewide will provide local air quality benefits and help achieve state emission reduction goals.

Goals of the Agreement:

The goals of the CEC and CARB Grant Agreements are to advance zero-emission Class 8 on-road technology and understanding of fleet dynamics when deploying many zero-emission trucks and supporting infrastructure. The CEC agreement will fund the construction of a hydrogen refueling station capable of providing 700-bar fuel to support the trucks and implement workforce development and training activities that will support the successful deployment of a commercial fleet of 22 fuel cell electric Class 8 trucks in northern California that are being funded under a separate agreement from CARB. The project will eliminate the footprint of hydrogen fuel generation by producing hydrogen via onsite generation using biogas feedstock from the East Bay Municipal Utility District (EBMUD), displace 100% of greenhouse gas (GHG) and criteria pollutants associated with vehicle operations, and provide economic and public health benefits to the West Oakland disadvantaged community.

Objectives of the Agreement:

The objectives of the CEC and CARB Grant Agreements are to:

- Introduce Hyundai Motor America as another competitive OEM into the California and U.S. zero-emission markets, which is a necessary step to reduce cost and to commercialize zero-emission Class 8 trucks. The Hyundai Xcient 6x4 Fuel Cell Tractor has shown exceptional performance in the European and Asian markets.

- Operate 22 Hyundai Xcient fuel cell electric trucks in commercial operation in northern California for a period of at least 6 years. These trucks feature competitive performance to diesel trucks with respect to total cost of ownership, operating range, available payload capacity, cargo volume, vehicle performance parameters, refueling speed, reliability, and longevity.

- Demonstrate economies of scale for future fuel cell electric truck deployments. Hyundai Motor America's fuel cell electric trucks are unilaterally and vertically

integrated by Hyundai Motor America, including steel manufacturing, fuel cell design, truck integration, and final validation testing. Vertical integration is a key ebnabler of significant cost reductions and approaching diesel truck cost parity.

- Build and operate a hydrogen refueling station capable of supporting a 22-truck deployment at 700-bar pressure. The refueling station will be located just outside of the Port of Oakland and is essential to enabling expansion of the operation of fuel cell electric vehicles in the face of a growing influx of freight in northern California.

- Conduct a Workforce Training program and demonstrate benefits to local employment. NorCal Kenworth is a Bay Area company with an excellent reputation leasing, servicing, and repairing trucks in northern California. This proposal features a comprehensive advanced technology training program in support of Bay Area employees.

- Collect and analyze project data detailing vehicle performance, maintenance and repair, fueling infrastructure, and operations. This data is critical to understand the current state of zero-emission equipment at the micro- and macro-level, and the insights garnered will help steer the industry toward more rapid commercial deployments.

TASK 1 ADMINISTRATION (Joint CEC and CARB Task)

Task 1.1 Attend Kick-off Meeting (Joint CEC and CARB Sub-task)

The goal of this task is to establish the lines of communication and procedures for implementing this Agreement. The Commission Agreement Manager (CAM) and CARB project liaison shall designate the date and location of this meeting and provide an agenda to the Recipient prior to the meeting.

The Recipient shall:

- Attend a "Kick-Off" meeting with the CAM, the CARB project liaison, the Commission Agreement Officer (CAO), and a representative of the Energy Commission Accounting Office. The Recipient shall bring their Project Manager, Agreement Administrator, Accounting Officer, and any others determined necessary by the Recipient or specifically requested by the CAM or CARB project liaison to this meeting.
- Discuss the following administrative and technical aspects of this Agreement:
    - Agreement Terms and Conditions
    - Critical Project Review (Task 1.2)

- Match fund documentation (Task 1.6) No reimbursable work may be done until this documentation is in place.
- Permit documentation (Task 1.7)
- Subcontracts needed to carry out project (Task 1.8)
- The CAM's and CARB's expectations for accomplishing tasks described in the Scope of Work
- An updated Schedule of Products and Due Dates
- Monthly Progress Reports (Task 1.4)
- Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
- Final Report (Task 1.5)

Recipient Products:

- Updated Schedule of Products
- Updated List of Match Funds
- Updated List of Permits
- Schedule for obtaining CARB Executive Order(s) for each vehicle make and model during pilot, if not already issued

CAM Product:

- Kick-Off Meeting Agenda

Task 1.2 Critical Project Review (CPR) Meetings (Joint CEC and CARB Sub-task)

CPRs provide the opportunity for frank discussions between the Energy Commission, CARB, and the Recipient. The goal of this task is to determine if the project should continue to receive Energy Commission and CARB funding to complete this Agreement and to identify any needed modifications to the tasks, products, schedule or budget.

The CAM or CARB project liaison may schedule CPR meetings as necessary, and meeting costs will be borne by the Recipient.

Meeting participants include the CAM, the CARB project liaison, and the Recipient and may include the Commission Agreement Officer, the Fuels and Transportation Division (FTD) program lead, other Energy Commission staff and Management as well as other individuals selected by the CAM or CARB project liason to provide support to the Energy Commission and CARB.

The CAM and CARB shall:

- Determine the location, date, and time of each CPR meeting with the Recipient. These meetings generally take place at the Energy Commission, but they may take place at another location.
- Send the Recipient the agenda and a list of expected participants in advance of each CPR. If applicable, the agenda shall include a discussion on both match funding and permits.
- Conduct and make a record of each CPR meeting. Prepare a schedule for providing the written determination described below.
- Determine whether to continue the project, and if continuing, whether or not modifications are needed to the tasks, schedule, products, and/or budget for the remainder of the Agreement. Modifications to the Agreement may require a formal amendment (please see section 8 of the Terms and Conditions). If the CAM and the CARB project liaison concludes that satisfactory progress is not being made, this conclusion will be referred to the Lead Commissioner for Transportation for his or her concurrence.
- Provide the Recipient with a written determination in accordance with the schedule. The written response may include a requirement for the Recipient to revise one or more product(s) that were included in the CPR.

The Recipient shall:

- Prepare a CPR Report for each CPR that discusses the progress of the Agreement toward achieving its goals and objectives. This report shall include recommendations and conclusions regarding continued work of the projects. This report shall be submitted along with any other products identified in this scope of work. The Recipient shall submit these documents to the CAM, CARB, and any other designated reviewers at least 15 working days in advance of each CPR meeting.
- Present the required information at each CPR meeting and participate in a discussion about the Agreement.

CAM and CARB Products:

- Agenda and a list of expected participants
- Schedule for written determination
- Written determination

Recipient Product:

- CPR Report(s)

Task 1.3 Final Meeting (Joint CEC and CARB Sub-task)

The goal of this task is to closeout this Agreement.

The Recipient shall:

- Meet with Energy Commission staff and the CARB project liaison to present the findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement.

  This meeting will be attended by, at a minimum, the Recipient, the Commission Grants Office Officer, CAM, and the CARB project liaison. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the CAM and the CARB project liaison.

  The technical portion of the meeting shall present an assessment of the degree to which project and task goals and objectives were achieved, findings, conclusions, recommended next steps (if any) for the Agreement, and recommendations for improvements. The CAM and the CARB project liaison will determine the appropriate meeting participants.

  The administrative portion of the meeting shall be a discussion with the CAM, the CARB project liaison, and the Grants Officer about the following Agreement closeout items:

  - What to do with any equipment purchased with CEC and CARB funds (Options)
  - CEC's and CARB's request for specific "generated" data (not already provided in Agreement products)
  - Need to document Recipient's disclosure of "subject inventions" developed under the Agreement
  - "Surviving" Agreement provisions
  - Final invoicing and release of retention
- Prepare a schedule for completing the closeout activities for this Agreement.

Products:

- Written documentation of meeting agreements
- Schedule for completing closeout activities

Task 1.4 Monthly Progress Reports (Joint CEC and CARB Sub-task)

The goal of this task is to periodically verify that satisfactory and continued progress is made towards achieving the objectives of this Agreement on time and within budget.

The objectives of this task are to summarize activities performed during the reporting period, to identify activities planned for the next reporting period, to identify issues that may affect performance and expenditures, and to form the basis for determining whether invoices are consistent with work performed.

The Recipient shall:

- Prepare a Monthly Progress Report which summarizes all Agreement activities conducted by the Recipient for the reporting period, including an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Each progress report is due to the CAM and the CARB project liaison within 10 days of the end of the reporting period. The recommended specifications for each progress report are contained in Section 6 of the Terms and Conditions of this Agreement.
- In the first Monthly Progress Report and first invoice, document and verify match expenditures and provide a synopsis of project progress, if match funds have been expended or if work funded with match share has occurred after the notice of proposed award but before execution of the grant agreement. If no match funds have been expended or if no work funded with match share has occurred before execution, then state this in the report. All pre-execution match expenditures must conform to the requirements in the Terms and Conditions of this Agreement.

Product:

- Monthly Progress Reports

Task 1.5 Final Report (Joint CEC and CARB Sub-task)

The goal of the Final Report is to assess the project's success in achieving the Agreement's goals and objectives, advancing science and technology, and providing energy-related and other benefits to California.

The objectives of the Final Report are to clearly and completely describe the project's purpose, approach, activities performed, results, and advancements in science and technology; to present a public assessment of the success of the project as measured by the degree to which goals and objectives were achieved; to make insightful observations based on results obtained; to draw conclusions; and to make recommendations for further projects and improvements to the CARB and FTD project management processes.

The Final Report shall be a public document. If the Recipient has obtained confidential status from the Energy Commission and CARB and will be preparing a confidential version of the Final Report as well, the Recipient shall perform the following activities for both the public and confidential versions of the Final Report.

The Recipient shall:

- Prepare an Outline of the Final Report, if requested by the CAM.
- Prepare a Final Report following the latest version of the Final Report guidelines which will be provided by the CAM. The CAM and CARB project liaison shall provide written comments on the Draft Final Report within fifteen (15) working days of receipt. The Final Report must be completed at least 60 days before the end of the Agreement Term.
- Submit one bound copy of the Final Report with the final invoice to the CAM and one bound copy of the Final Report to the CARB project liaison.

Products:

- Outline of the Final Report, if requested
- Draft Final Report
- Final Report

Task 1.6 Identify and Obtain Matching Funds (Joint CEC and CARB Sub-task)

The goal of this task is to ensure that the match funds planned for this Agreement are obtained for and applied to this Agreement during the term of this Agreement.

The costs to obtain and document match fund commitments are not reimbursable through this Agreement. Although the Energy Commission budget and CARB budget for this task will be zero dollars, the Recipient may utilize match funds for this task. Match funds shall be spent concurrently or in advance of Energy Commission and CARB funds for each task during the term of this Agreement. Match funds must be identified in writing and the associated commitments obtained before the Recipient can incur any costs for which the Recipient will request reimbursement.

The Recipient shall:

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the CAM and the CARB project liaison at least 2 working days prior to the kick-off meeting. If no match funds were part of the proposal that led to the Energy Commission and CARB awarding this Agreement and none have been identified at the time this Agreement starts, then state such in the letter. If match funds were a part of the proposal that led to the Energy Commission and CARB awarding this Agreement, then provide in the letter a list of the match funds that identifies the:
    - Amount of each cash match fund, its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied.

  - Amount of each in-kind contribution, a description, documented market or book value, and its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Recipient shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located.

- Provide a copy of the letter of commitment from an authorized representative of each source of cash match funding or in-kind contributions that these funds or contributions have been secured. For match funds provided by a grant a copy of the executed grant shall be submitted in place of a letter of commitment.
- Discuss match funds and the implications to the Agreement if they are reduced or not obtained as committed, at the kick-off meeting. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide the appropriate information to the CAM and CARB project liaison if during the course of the Agreement additional match funds are received.
- Notify the CAM and CARB project liaison within 10 days if during the course of the Agreement existing match funds are reduced. Reduction in match funds must be approved through a formal amendment to the Agreement and may trigger an additional CPR meeting.

Products:

- A letter regarding match funds or stating that no match funds are provided
- Copy(ies) of each match fund commitment letter(s) (if applicable)
- Letter(s) for new match funds (if applicable)
- Letter that match funds were reduced (if applicable)

Task 1.7 Identify and Obtain Required Permits (Joint CEC and CARB Sub-task)

The goal of this task is to obtain all permits required for work completed under this Agreement in advance of the date they are needed to keep the Agreement schedule on track.

Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement. Although the Energy Commission budget and CARB budget for this task will be zero dollars, the Recipient shall budget match funds for any expected expenditures associated with obtaining permits. Permits must be identified in writing and obtained before the Recipient can make any expenditure for which a permit is required.

The Recipient shall:

- Prepare a letter documenting the permits required to conduct this Agreement and submit it to the CAM and CARB project liaison at least 2 working days prior to the kick-off meeting. If there are no permits required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that permits will be required during the course of the Agreement, provide in the letter:
    - A list of the permits that identifies the:
        - Type of permit
        - Name, address and telephone number of the permitting jurisdictions or lead agencies
    - The schedule the Recipient will follow in applying for and obtaining these permits.
- Discuss CARB Executive Order(s) and the schedule for obtaining them at the kick-off meeting should the vehicle manufacturer not already have them for each vehicle make and model being piloted.
- Discuss the list of permits and the schedule for obtaining them at the kick-off meeting and develop a timetable for submitting the updated list, schedule and the copies of the permits. The implications to the Agreement if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in the Progress Reports and will be a topic at CPR meetings.
- If during the course of the Agreement additional permits and CARB Executive Order(s) become necessary, provide the appropriate information on each permit and an updated schedule to the CAM and CARB project liaison.
- As permits and CARB Executive Order(s) are obtained, send a copy of each approved permit to the CAM and CARB project liaison.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM and CARB project liaison within 5 working days. Either of these events may trigger an additional CPR.

Products:

- Letter documenting the permits or stating that no permits are required
- A copy of each approved permit (if applicable)
- Updated list of permits as they change during the term of the Agreement (if applicable)
- Updated schedule for acquiring permits as changes occur during the term of the Agreement (if applicable)
- A copy of each final approved permit (if applicable)
- A copy of the CARB Executive Order for each vehicle make and model.

Task 1.8 Obtain and Execute Subcontracts (Joint CEC and CARB Sub-task)

The goal of this task is to ensure quality products and to procure subcontractors required to carry out the tasks under this Agreement consistent with the Agreement Terms and Conditions and the Recipient's own procurement policies and procedures. It will also provide the Energy Commission and CARB an opportunity to review the subcontracts to ensure that the tasks are consistent with this Agreement, and that the budgeted expenditures are reasonable and consistent with applicable cost principles.

The Recipient shall:

- Manage and coordinate subcontractor activities.
- Submit a draft of each subcontract required to conduct the work under this Agreement to the CAM and CARB project liaison for review.
- Submit a final copy of the executed subcontract.
- If Recipient decides to add new subcontractors, then the Recipient shall notify the CAM and CARB project liaison.
-

Products:

- Letter describing the subcontracts needed, or stating that no subcontracts are required
- Draft subcontracts
- Final subcontracts

TECHNICAL TASKS

TASK 2 TRUCK PROCUREMENT (CARB Task)

The goal of this task is procure 22 commercial fuel cell electric Class 8 trucks through Hyundai Motor America. These trucks will be financed through Macquarie who will provide a monthly lease agreement to Glovis America, Inc.. Macquarie Equipment Capital Inc. and Glovis America, Inc. will be responsible for vehicle registration at the

California Department of Motor Vehicles.

TASK 2.1 Purchase Fuel Cell Electric Trucks (CARB Sub-task)

The goal of this subtask is complete the purchase of 22 commercial fuel cell electric Class 8 trucks through Hyundai Motor America.

The Recipient shall:

- Finalize vehicle specifications and place orders.
- Finalize truck delivery schedule.
- Order and receive 22 fuel cell electric Class 8 trucks from Hyundai.
- Provide Department of Motor Vehicles (DMV) registrations and Vehicle Identification Numbers, and odometer readings.
- Provide high-quality photographs of each fuel cell electric truck (clearly labeled with unique identification numbers and funding agencies' decals placed on driver side).

Products:

- Photographs
- Vehicle Registrations
- Odometer Readings
- Vehicle Identification Numbers

TASK 2.2 Manufacture and Deliver Trucks (CARB Sub-task)

The goal of this subtask is to manufacture and deliver 22 "Hyundai Xcient 6x4 Fuel Cell Tractor" fuel cell electric Class 8 trucks to Glovis America, Inc. for deployment into typical revenue service operation. These commercial vehicles will be manufactured unilaterally by Hyundai Motor America at their manufacturing center in Seoul, South Korea.

The Recipient shall:

- Prepare the Vehicle Production Plan. The Production Plan shall include, but is not limited to:
    - Confirmation that vehicle specifications are appropriate for intended duty cycle.
    - Pathway to Federal Motor Vehicle Safety Standards (FMVSS) conformity.
    - Expected timelines for vehicle procurement, build, validation, and delivery.
    - Vehicle performance validation procedures

- Customer acceptance requirements and procedures
- Provide a draft and final Vehicle Production Plan to the CARB Liaison.
- Complete procurement of major and minor equipment necessary for vehicle build.
- Manufacture 22 fuel cell electric Class 8 trucks to meet the operational requirements of the customer.
- Complete validation testing (or other Quality Assurance) and customer acceptance of the vehicles.
- Provide an Impact Report to the CARB Liaison, if there is significant impact to the project scope, schedule, or budget
- Confirm receipt of vehicles by Glovis America, Inc.. Provide a Notification of Customer Acceptance and Notification of Customer Receipt of Vehicles to the CARB Liaison.

Products:

- Draft Vehicle Production Plan
- Final Vehicle Production Plan
- Impact Report(s), if necessary
- Proof of vehicle shipping
- Notification of Customer Acceptance
- Notification of Customer Receipt of Vehicles

TASK 2.3 Develop Commercial Leasing Terms (CARB Sub-task)

The goal of this subtask is to develop and execute the commercial leasing terms required for Glovis America, Inc. to operate 22 fuel cell electric trucks under a monthly lease for a period of six (6) years.

The Recipient shall:

- Develop commercial leasing terms between Macquarie Equipment Capital Inc. and Glovis America, Inc. for 22 fuel cell electric trucks in an operational period of six years.
- Execute commercial leasing terms between Macquarie Equipment Capital Inc. and Glovis America, Inc..
- Provide a Notification of executed Commercial Leasing Terms to the CARB Liaison.

Products:

- Notification of executed Commercial Leasing Terms

TASK 3 HYDROGEN STATION DEVELOPMENT (CEC Task)

The goal of this task is plan for, develop, construct and commission the proposed hydrogen refueling station at the Port of Oakland to be used by the proposed Hyundai Class 8 trucks commercial service operations.

Task 3.1 Hydrogen Safety Plan (CEC Sub-task)

The goal of this subtask is to develop a Hydrogen Safety Plan for the project's hydrogen fueling infrastructure that will provide fuel for the fleet of fuel cell electric Class 8 trucks. This Plan will demonstrate that hydrogen safety has been incorporated into project planning and execution and to ensure appropriate procedures are in place to safely operate hydrogen technologies. The Project Team will develop the Hydrogen Safety Plan and all Hydrogen Safety Design Reviews in close coordination with the HSP.

The Recipient shall:

- Prepare the preliminary Hydrogen Safety Plan. The Hydrogen Safety Plan shall include, but is not limited to:
    - A description of the technologies to be operated
    - The Project Team's approach to ensure safe operation of all hydrogen technologies
    - Results of a functional hazard analysis to be conducted by the Project Team
    - A conformity plan for relevant codes and standards, e.g. NFPA 2
    - The Project Team's safety reporting policies and procedures
    - A detailed description about how the Project Team will provide safety training for the hydrogen fueling infrastructure's initial operation and safety training for all operators
- Submit the preliminary Hydrogen Safety Plan for review by the HSP and incorporate feedback into the final Hydrogen Safety Plan.
- Submit the final Hydrogen Safety Plan to CARB and CEC.
- Complete a hydrogen safety design review.
- Report unintended hydrogen releases to the Certified Unified Program Agency (CUPA), the CEC, and CARB.
- Report safety incidents.

Products:

- Hydrogen Safety Plan (draft and final)
- Safety Incident Report(s) using the NREL Data Collection Tool (if and when applicable)

Task 3.2 Hydrogen Station Commissioning (CEC Sub-task)

The goal of this subtask is develop, construct and commission a hydrogen refueling station at the Port of Oakland to be used by 22 Hyundai Class 8 trucks commercial service operations.

The Recipient shall:

- Define fueling protocols and procedures.
- Procure the Station Equipment.
- Construct the proposed hydrogen refueling station, including arranging and completing utility connections.
- Commission the proposed hydrogen refueling station.
- Provide Notification of Hydrogen Station Commissioning to the CAM when completed.

Products:

- 50% Completion Progress Report
- Notification of Hydrogen Station Commissioning

[CPR WILL BE HELD IN THIS TASK. See Task 1.2 for details]

TASK 4 MAINTENANCE FACILITY UPGRADES (CEC Task)

The goal of this task is to complete the necessary work to bring the NorCal Kenworth maintenance facility into compliance for hydrogen vehicle service and operation. This includes third-party assessment and planning, construction of maintenance bay doors, and upgrades to existing monitoring and alarm systems, ventilation, and other electrical equipment.

The Recipient shall:

- Complete a third-party assessment of the current maintenance facility to determine current status of hydrogen compliance per relevant codes and standards.
- Provide a copy of facility assessment results and recommendations to the CAM.
- Procure construction services to install maintenance bay doors.
- Construct maintenance bay doors to enclose current maintenance facility.
- Provide Verification of completed bay door construction to the CAM.
- Complete necessary upgrades to existing facility systems to bring them within hydrogen compliance, such as heating, ventilation, or other electrical equipment.

- Provide Verification of completed facility upgrades for hydrogen compliance to the CAM.

Products:

- Copy of facility assessment results and recommendations
- Verification of completed bay door construction
- Verification of completed facility upgrades for hydrogen compliance

TASK 5 COMMUNITY OUTREACH (CEC Task)

The goal of this task is to conduct public outreach on the benefits of the project, including emissions reductions, local economic benefits, and commercial product goals. Public outreach efforts will be conducted in close collaboration between the Recipient, UC Berkeley, and the West Oakland Environmental Indicators Project (WOEIP).

The Recipient shall:

- Develop a Community Outreach and Engagement Plan. This plan will include, but is not limited to:
  - Community outreach materials that accurately describe the project and technology benefits
  - Pathways to engage with the WOEIP and other community-based organizations to disseminate outreach materials to local community groups and leaders
  - A schedule for outreach and engagement activities
- Provide Community Outreach and Engagement Plan to the CAM.
- Update the Community Outreach and Engagement Plan and adapt outreach materials as necessary to maximize outreach benefits.

Products:

- Community Outreach and Engagement Plan

TASK 6 ZEV WORKFORCE PLAN (CEC Task)

The goal of this task is to develop and implement a Zero-Emission Workforce Training and Development Plan (ZEV Workforce Plan). The ZEV Workforce Plan is for planning, curricula development, and training of maintenance, operations, and service staff for both vehicles and infrastructure.

The Recipient shall:

- Finalize and publish the ZEV Workforce Plan. The ZEV Workforce Plan shall include, but is not limited to:

  - Purpose of the ZEV Workforce Plan
  - Overview of workforce partnerships
  - Job creation details and hiring plan, if necessary
  - Training approach, including target participants, development of training curricula, and training methodology
  - Program evaluation metrics for performance and cost
- Provide a copy of the ZEV Workforce Plan to the CAM.
- Conduct workforce training as detailed by the ZEV Workforce Plan.
- Collect workforce training data, including but not limited to:
  - Total number of workforce training participants and participant job titles or role and status of each participant at the end of each project.
  - Job creation details including number of workers hired and roles hired for
  - Trainee feedback on training curricula and materials
  - Number of hours of training provided for each trainee
  - Itemized cost expenditures for workforce training
- Provide a copy of the Workforce training and curricula and materials to the CAM.
- Evaluate training program as detailed by the ZEV Workforce Plan and publish a ZEV Workforce findings and recommendations report.
- Provide verification that the workforce training data is in compliance with the EVITP requirements to the CAM.
- Provide a copy of the ZEV Workforce Findings and Recommendations report to the CAM.

Products:

- Final ZEV Workforce Plan
- Copy of Workforce training curricula and materials
- Workforce training data in compliance with the EVITP including certification data of allowable personnel.
- ZEV Workforce Findings and Recommendations report

[CPR WILL BE HELD IN THIS TASK. See Task 1.2 for details]

TASK 7 VEHICLE DEPLOYMENT PLANNING (Joint CEC and CARB Task)

The goal of this task is to complete all of the supporting activities necessary to prepare for safe and successful operation of the fuel cell electric vehicles and hydrogen refueling infrastructure. These activities include development of the vehicle operating manual, preparing for maintenance and support of the vehicles and infrastructure, preparing a training plan and curriculum, conducting training for operations and maintenance personnel, and notifying local first responders of hydrogen operations.

The Recipient shall:

- Develop a Maintenance and Support Plan. The Maintenance and Support Plan will include, but is not limited to:
    - Processes for reporting issues with vehicles and refueling infrastructure
    - Assignment of maintenance and support responsibilities
    - Communication procedures between members of the Project Team
    - Emergency events and procedures
    - Preventative Maintenance schedule for vehicle and infrastructure components
- Provide a copy of the Maintenance and Support Plan to the CAM.
- Develop a Vehicle Operating Manual and provide a copy to the CAM.
- Notify local first responders of hydrogen operations and provide emergency situation or other safety-related materials. Provide a copy of the notification to the CAM.

Products:

- Maintenance and Support Plan
- Vehicle Operating Manual
- Copy of notification to local first responders

TASK 8 VEHICLE OPERATION (CARB Task)

The goal of this task is to deliver and operate 22 fuel cell electric Class 8 trucks in revenue service with Glovis America, Inc. for a period of at least 12 months during the Grant term. The vehicles are expected to continue operating outside of the Grant term for a total period of 6 years.

The Recipient shall:

- Operate each of the 22 vehicles for a period of at least 12 months during the Grant term.
- Notify the CARB Liaison when operations begin.
- Provide technical support to Glovis America, Inc. to maximize equipment reliability, efficiency, and performance.
- Complete all vehicle service and maintenance, as required.

Products:

- Notification of vehicle operations

TASK 9 HYDROGEN STATION OPERATION (CEC Task)

The goal of this task is to operate the proposed hydrogen refueling station at the Port of Oakland for the Hyundai Class 8 trucks in commercial service operations through March 31, 2025, reporting data as required for Task 10. The station is expected to continue operating outside of the Grant term for a total period of 6 years.

The Recipient shall:

- Operate the hydrogen refueling station, including ensuring safe refueling and providing hydrogen supply with 0 carbon intensity (CI). Notify the CAM when hydrogen station operations begin.
- Complete all necessary maintenance and service work in response to unplanned station downtime.
- Provide technical support to ensure station reliability and operator satisfaction.

Products:

- Notification of hydrogen station operations

Task 10 DATA COLLECTION AND ANALYSIS (CEC Task)

The goal of this task is to collect operational data from the project, to analyze that data for economic and environmental impacts, and to include the data and analysis in the Final Report.

Data and analysis for this hydrogen refueling project will be submitted to the CEC and CARB quarterly using the National Renewable Energy Laboratory (NREL) Data Collection Tool, to perform and report hydrogen quality test results, and to collect and analyze data from the project for economic and environmental impacts and include in the Final Report.

The Recipient shall:

- Develop data collection test plan and/or submit the NREL Data Collection Tool once the hydrogen refueling station becomes operation and continue to do so every quarter until the end of the agreement.
- Perform and submit results of purity using hydrogen collected, at the nozzle for each hose at each open retail station. Purity tests for the station will be performed:
    - at the time the station becomes operational
    - every six months after the station becomes operational during the approved term of this agreement; and,
    - as needed when the hydrogen lines are potentially exposed to contamination due to maintenance or other activity.

  Hydrogen purity readings shall be collected according to CCR Title 4 Business Regulations, Division 9 Measurement Standards, Chapter 6 Automotive Products Specifications, Article 8 Specifications for Hydrogen Used in Internal Combustion Engines and Fuel Cells, Sections 4180 and 4181.
- Troubleshoot any issues identified.
- Identify the source of hydrogen.
- Duty cycle of the current fleet and the expected duty cycle of future vehicle acquisitions.
- Collect 12 months of throughput, usage, and operations data from the project monthly using the data collection requirements detailed in Attachment 20.
- Maximum capacity of the new fueling system.
- Gallons of gasoline and/or diesel fuel displaced (with associated mileage information).
- Estimated reductions of the metrics below using the methodology and calculations shown in CARB's *Methodology for Determining Emission Reductions and Cost-Effectiveness*.
    - Greenhouse gas
    - Oxides of nitrogen
    - Particulate matter (less than 10 microns in diameter)
    - Carbon intensity values for life-cycle greenhouse gas emissions
    - Reactive organic gas

- Identify any current and planned use of renewable energy at the facility.
- Describe any energy efficiency measures used in the facility that may exceed Title 24 standards in Part 6 of the California Code Regulations.
- Provide data on potential job creation (both temporary and permanent), economic development, and increased state revenue as a result of expected future expansion.
- Specific jobs (both temporary and permanent) and economic development resulting from this project
- Compare and contrast any project performance and expectations provided in the proposal to CEC and CARB with actual project performance and accomplishments.
- Collect data, information, and analysis described above and include in the Final Report.
- Data collection and analysis for infrastructure will include:
    - Installation and capital costs for hardware, installation, electrical upgrades.
    - Aggregated/average price of hydrogen fuel.
    - Performance metrics/analysis of station reliability.
- Conduct project stakeholder surveys, interviews and data reviews with fleet operators, OEMs, and utilities to identify challenges, successes, lessons learned and best practices during beginning, mid-point, and end of the project.

Products:

- Data Collection Test Plan
- Monthly data collection
- Quarterly NREL Data Collection Tool (for hydrogen refueling projects)

[CPR WILL BE HELD IN THIS TASK. See Task 1.2 for details]

TASK 11 PROJECT FACT SHEET (CEC Task)

The goal of this task is to develop an initial and final project fact sheet that describes the CEC and CARB funded project and the benefits resulting from the project for the public and key decision makers.

The Recipient shall:

- Prepare an Initial Project Fact Sheet at start of the project that describes the project and the expected benefits. Use the format provided by the CAM.
- Prepare a Final Project Fact Sheet at the project's conclusion that describes the project, the actual benefits resulting from the project, and lessons learned from implementing the project. Use the format provided by the CAM.
- Provide at least six High Quality Digital Photographs (minimum resolution of 1300x500 pixels in landscape ratio) of pre and post technology installation at the project sites or related project photographs.

Products:

- Initial Project Fact Sheet
- Final Project Fact Sheet
- High Quality Digital Photographs

State of California **California Natural Resources Agency**

M e m o r a n d u m

FOR: ARV-21-017, Center for Transportation and the Environment

Date: June 30, 2021

Telephone: (916) 805-7477

From: **Alex Wan**
California Energy Commission
1516 Ninth Street
Sacramento CA 95814-5512

Subject: California Environmental Quality Act Analysis for grant agreement ARV-21-017

INTRODUCTION AND SUMMARY

I am an Associate Energy Specialist in the Fuels and Transportation Division at the California Energy Commission (CEC), and am the Commission Agreement Manager for the proposed Agreement ARV-21-017 (Agreement), the NorCAL Drayage (Project).

Pursuant to my work in developing the Agreement, including the Scope of Work for this proposed Agreement, I have reviewed the lead agency, the East Bay Municipal Utility District's (EBMUD) California Environmental Quality Act (CEQA) 2011 Final Environmental Impact Report (EIR) for the Project, EBMUD's Resolution No. 33834-11 certifying the EIR, Addendum to the EIR for the Wastewater Treatment Plant Land Use Master Plan Environmental Impact Report – FirstElement Fuel HRS (May 13, 2021), EBMUD's Agenda for its May 25, 2021 Board meeting; the agenda backup materials for Item 12.1-12.3 for that meeting regarding the HRS lease, EBMUD's Action Summary from its May 25, 2021 meeting, and EBMUD's filed Notice of Determination (NOD) for the Addendum. In addition, I reviewed the proposed Agreement ARV-21-017 including the Scope of Work.

It is my opinion that the work to be performed under the proposed Agreement to build and operate the HRS facility falls within the scope of the lead agency's documents, and the Agreement will not result in any new significant environmental impacts than those already considered by the lead agency. I have not found any new mitigation measures within the CEC's authority that would lessen or further mitigate the Project's impacts. It is my opinion that the significant environmental impacts identified by the lead agency will be sufficiently mitigated to below significant levels or economic, legal, social, technological, or other benefits of the Project outweigh the significant unavoidable and mitigatable environmental impact. The reasons for this conclusion are as follows.

The CEC ARV-21-017 grant would fund the "Project," which includes the establishment of a hydrogen refueling station (HRS) to fuel heavy-duty fuel cell trucks serving the Port of Oakland. The HRS would involve deliveries of liquid cryogenic

hydrogen and a cryogenic fueling system on an equipment skid that includes liquid hydrogen storage, a cryogenic pump, pressurized hydrogen storage, and mechanical and electrical facilities within a containerized enclosure. In addition, there would be up to two hydrogen dispenser pumps covered by canopies and a new Pacific Gas and Electric electrical connection with transformer and meter on a pedestal. The Project may be expanded to include a second storage system and canopy with two additional hydrogen dispenser pumps.

EBMUD previously certified the Land Use Master Plan Environmental Impact Report (LUMP EIR) in 2011 and has made several Addenda to that EIR over the years. In May 2021, EBMUD prepared an Addendum to the LUMP EIR to replace the previously proposed, but never built, food waste preprocessing project with the HRS. According to the Addendum, the modifications do not involve significant new environmental effects not analyzed in the LUMP EIR, nor do they substantially increase the severity of significant effects previously identified in the LUMP EIR, nor has new information of substantial importance arisen since the LUMP EIR was certified. Therefore, EBMUD concluded, and I agree that the HRS described in the Addendum will not result in a significant effect on the environment. Moreover, EBMUD adopted the mitigation measures and the mitigation monitoring or reporting program (MMRP) identified in the LUMP EIR at the time it certified that document. The Addendum did not change the mitigation measures or the MMRP. The HRS project will comply with mitigation measures and the MMRP as applicable.

Also of note, EBMUD adopted Findings and a Statement of Overriding Considerations for the LUMP EIR concerning toxic air contaminant emissions. The primary contributor to such emissions was mobile equipment operating within the food waste processing plant, which was never built. EBMUD's May 2021 Addendum regarding the HRS indicated that the HRS replacement of the food waste processing plant does not involve significant new environmental effects not analyzed in the LUMP EIR nor do they substantially increase the severity of significant effects previously identified in the LUMP EIR. EBMUD did not adopt findings of overriding considerations for the HRS project for these reasons. Similarly, no statement of overriding considerations is necessary for the CEC to approve funding of grant ARV-21-017.

The scope of work under grant agreement ARV-21-017 also includes modification to a truck maintenance facility at 1755 Adams Avenue in San Leandro, California. The facility requires third-party assessment and planning; construction of maintenance bay doors; and upgrades to existing monitoring and alarm systems, ventilation, and other electrical equipment. The CEQA exemption under California Code of Regulations, title 14, section 15301, "Existing Buildings," applies. Section 15301 covers the operation, maintenance, or minor alteration of existing public or private structures, facilities, mechanical equipment, involving negligible or no expansion of existing or former use. The modifications are for compliance with hydrogen-related requirements and would cause negligible or no expansion of the existing use. Therefore, the modifications will have no significant effect on the environment and are categorically exempt under section 15301.

DISCUSSION

The construction and operation of a HRS at the West End property, located at 2450 Engineer Road, Oakland, CA 94607, would result in the following changes in impacts as compared to the food waste preprocessing project. As documented below, energy use and operational emissions would be reduced. The HRS would have less construction impact because the smaller facility could be constructed with three months with limited construction while the food preprocessing facility would have required more extensive construction occurring over a 14- to 16-month period. Environmental Commitments from the 2011 EIR would be applicable to the construction and operation of the HRS. The details of the changes to impacts are described in the following sections. The text frequently paraphrases or uses quoted material from the 2021 Addendum and 2011 EIR.

Even where it may not say so explicitly below, EBMUD already imposed the mitigation measures discussed.

Land Use and Recreation:

The HRS would be within the West End property at the existing MWWTP and would be consistent with existing land use. At the time the 2011 EIR was certified, the extension of the Bay Trail along the northern portion of the MWWTP had not yet been built. The trail has now been extended along the northern edge of the MWWTP and the "visually attractive educational signs to inform users of the Bay Trail about operations at the MWWTP" have been installed. Short-term construction activities would be screened by the existing digesters, would not be expected to be particularly noticeable to users of the Bay Trail, and would not interfere with any recreational use. Construction of the HRS is a short-term activity that is consistent with existing and planned operations at the MWWTP and would not impair recreational use of the Bay Trail.

The 2011 EIR envisioned use of the Building 1070 Yard at the West End property, which is covered by an engineered cap, for revenue-generating land lease. The proposed HRS is consistent with that proposed use, even if the lease location is slightly different from that described in the 2011 EIR. The proposed location for the HRS was originally part of a larger area that was designated for employee parking/emergency equipment storage, but EBMUD has determined that the entire site is not needed for those purposes. Building 1084, which is immediately west of Building 1086, provides emergency equipment storage and will continue to do so into the future. EBMUD has determined that there is sufficient employee parking into the future in the existing locations on the MWWTP site. Thus there is additional space available to dedicate to revenue-generating land lease. Use of the Building 1086 site for land lease is consistent with uses proposed at the West End property, and the Building 1086 location does not have the constraints associated with construction of structures on the engineered cap at the Building 1070 Yard. The HRS is thus consistent with overall planned land uses at the MMWTP and would not cause effects that were not analyzed in the 2011 EIR. No new measures would be required, and impacts would remain less than significant.

Aesthetics:
HRS's are similar in appearance to a gas station, with a refueling area covered by a canopy and adjacent ancillary structures for storage of liquid and gaseous hydrogen. EBMUD would require that the station be designed to match the existing visual character of the area. The canopy and equipment for the HRS would be shorter than the nearby digesters, which are 30 to 35 feet tall and would block views of the refueling station from Interstate 80. The canopy would be about 15 feet tall and would be the tallest structure at the refueling station. This HRS would not cause additional effects not analyzed in the 2011 EIR. Design and construction of the facility would be completed in accordance with mitigation from the 2011 EIR, including Mitigation Measure AES-2a: Maintenance of Construction Worksite, Mitigation Measure AES-2b: Design of Facilities to Be Aesthetically Consistent with Existing Visual Character, and Mitigation Measure AES-3: Lighting Design and Low Reflective Paint. No new mitigation measures would be required, and impacts would remain less than significant. More information about Mitigation Measures AES-2a, AES-2b, and AES-3 can be seen below.

Implementation of Mitigation Measure AES-2a would ensure that the construction worksite is kept clean of all rubbish and debris and promptly remove all unused and rejected materials, surplus earth, concrete, plaster, and debris from the site or from property adjacent to the worksite. Mitigation Measure AES-2b would require that the facilities and structures associated with the Land Use Master Plan components be consistent in design, exterior finishes, and color with existing MWWTP structures and the surrounding area. Therefore, the impact of these components on the visual character of the site and vicinity is considered at a programmatic level to be less than significant.

Mitigation Measure AES-3 would require that new lighting for the proposed projects included in the land use master plan would be consistent with existing lighting in terms of height, spacing and design, and would be shielded and directed to the interior of the project site. Mitigation Measure AES-3 would also require that new structures would be painted in low reflective paint consistent with existing structures at the MWWTP. Construction activities related to the projects would occur during daytime, weekday hours, and would not introduce a new source of nighttime light in the project area. Therefore, the effect of the proposed land use master plan as a source of light and glare would be less than significant.

EBMUD already imposed these mitigation measures. With the implementation of the aforementioned mitigation measures, impacts to aesthetics during construction of the Project will be reduced to a less than significant level.

Air Quality:
The 2011 EIR documented that construction emissions would be less than significant, even when considering the potential for overlapping construction of both the originally proposed biodiesel facility and food waste preprocessing facility. Construction of the HRS would require far less equipment use than would construction of the originally

proposed food waste preprocessing facility. The Project would require only three months of limited construction while the food waste preprocessing facility would have required more extensive construction occurring over a 14- to 16-month period. Therefore, construction emissions are expected to be substantially lower.

Additionally, there would be less overlap in construction than was considered in the 2011 EIR, which projected overlap in construction of the food waste preprocessing facility and biodiesel facility, along with other ongoing construction at the MWWTP. The container facility that replaced the biodiesel facility did not require construction of new structures and the facility is already operational. Construction of the HRS may occur when no other construction is ongoing at the West End property. The HRS would not cause construction impacts that were not analyzed in the 2011 EIR. Construction of the facility would be completed in accordance with Mitigation Measure AIR-1: Criteria Air Pollutant and Precursor Reduction Measures, from the 2011 EIR. No new mitigation measures would be required, and impacts would remain less than significant.

Mitigation Measure AIR-1 required the following actions:

a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
b. All haul trucks transporting soil, sand, or other loose material off site shall be covered.
c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
d. All vehicle speeds on unpaved areas shall be limited to 15 miles per hour.
e. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
h. A publicly visible sign with the telephone number and person to contact at the Lead Agency regarding complaints related to excessive dust or vehicle idling shall be posted at the MWWTP entrance. This person shall respond and take corrective action within 48 hours.

Emissions resulting from the Project would be reduced because there would be fewer operational diesel truck trips (two diesel truck trip ends per day versus 170 diesel

truck trip ends noted for the food waste preprocessing facility). The majority of the trips would consist of fuel cell electric vehicles that would use the fueling station, which do not emit criteria pollutants. Operation of the HRS would not generate odors. The HRS would not cause operational emissions that were not analyzed in the 2011 EIR. Because the facility would not generate odors, mitigation requiring odor controls for the food waste preprocessing facility and other odor-generating facilities would not be applicable to the HRS. No new mitigation measures would be required, and impacts would remain less than significant.

Biological Resources:
The HRS would be located in the Building 1086 area of the MWWTP. Because demolition would be required, Mitigation Measure BIO-1: Nesting Bird Protection would be implemented, and nesting bird surveys would be conducted before building demolition began to ensure protection of nesting birds.
No tree removal is expected and thus mitigation to replace trees would not be applicable to the HRS and no sensitive native species or habitats are present in this area. The HRS would not cause effects that were not analyzed in the 2011 EIR. No new mitigation measures would be required, and impacts would remain less than significant.

For BIO-1, to the extent practicable, Project construction activities including tree removal/pruning and demolition will occur outside of the generally accepted nesting season (February 1 to August 31). If tree removal cannot be completed between September 1 and January 31, and it is not feasible to avoid starting construction during the nesting season, then the following measures will be taken:

a. No more than two weeks before the initiation of construction/demolition activities that would commence between February 1 and August 31, a nesting bird survey will be conducted within 250 feet of the project site by a qualified biologist. If active nests are observed, buffer zones will be established around the nests, with a size acceptable to the California Department of Fish and Game. Construction activities will not occur within buffer zones until young have fledged or the nest is otherwise abandoned.
b. If construction/demolition is halted for more than two weeks during the nesting season, then additional surveys will be conducted as above.
c. Nests that are established during construction/demolition will be protected from direct project impact (e.g., trees or a buffer area around the nests shall be flagged and avoided).

Cultural Resources:
Project construction would take place within the MWWTP site, which has been evaluated for cultural resources. The entire area for the HRS is underlain by artificial fill and all of the area has been previously disturbed as part of construction of Building 1086. Construction of the refueling station would entail a minimal amount of trenching. Mitigation measures CUL-1, CUL-2, and CUL-3, identified in the 2011 EIR for unanticipated discoveries of buried cultural or paleontological resources or human

remains, would be implemented if any materials are unearthed during construction, but it is highly unlikely that any materials would be encountered. The HRS would not cause effects that were not analyzed in the 2011 EIR. No new mitigation measures would be required, and impacts would remain less than significant.

CUL-1 requires work to halt if previously unidentified cultural materials are unearthed during construction. Work is halted until a qualified archaeologist can assess the significance of the find. CUL-2 requires EBMUD to notify a qualified paleontologist if paleontological resources are discovered. CUL-3 requires EBMUD to halt work in the vicinity, notify the Alameda County Coroner, and contact an archaeologist to evaluate the find if human burials are encountered. If human remains are of Native American origin, the Coroner will notify the Native American Heritage Commission within 24 hours of this identification.

Energy:
Because the HRS requires less construction than the food waste preprocessing facility, energy requirements for construction would be less than those identified in the 2011 EIR. Operational energy use includes electricity to power cryogenic equipment, hydrogen dispenser pumps and lighting. Electrical power consumption would initially be 140 megawatt hour (MWh) per year for the first phase with one dispenser and fueling system; a maximum electrical demand of 500 MWh annually is expected at buildout with two dispensers. This would be less than the energy requirements of the food waste preprocessing facility, which would have required 4,900 MWh of electricity per year to power heavy equipment. The proposed project would provide a convenient location for refueling of heavy-duty fuel cell electric vehicles, which would offset the minor amount of energy required for construction. The HRS would not cause effects that were not analyzed in the 2011 EIR. No new mitigation measures would be required, and impacts would remain less than significant.

Geology, Soils, and Seismicity:
All new facilities would need to be designed and constructed to meet current building codes and EBMUD's seismic design requirements and would comply with Mitigation Measures GEO-1 and GEO-2 from the 2011 EIR, which specify design of facilities to address potential seismic hazards. The HRS would not cause effects that were not analyzed in the 2011 EIR. No new mitigation measures would be required, and impacts would remain less than significant.

GEO-1 requires EBMUD to perform site-specific, design-level geotechnical evaluations to identify potential secondary ground failure hazards (i.e., seismically-induced settlement) associated with the expected level of seismic ground shaking. For specific Land Use Master Plan element sites within the MWWTP that have previously been subject to a geotechnical investigation, a geotechnical memorandum shall be prepared to update the previous investigation.

GEO-2 requires EBMUD to perform site-specific design-level geotechnical evaluations to identify geologic hazards and provide recommendations to mitigate those hazards in the final design and during construction. For specific Land Use Master Plan element

sites within the MWWTP that have previously been subject to a geotechnical investigation, a geotechnical memorandum shall be prepared to update the previous investigation.

Greenhouse Gas (GHG) Emissions:
GHG emissions associated with construction of the HRS would be less than the emissions associated with construction of the food waste preprocessing facility, because the HRS facilities are smaller and construction would require less equipment over a shorter construction period. Mitigation Measure GHG-1, requiring GHG reduction measures during construction, would be applicable to the construction of the HRS. The refueling station would facilitate use of fuel cell electric vehicles at the Port of Oakland (Port) and would thus reduce GHG emissions from trucks servicing the Port, which is consistent with Mitigation Measure GHG-2a from the 2011 EIR. Mitigation Measure GHG-2b: Water Conservation Measures would be implemented as appropriate. The HRS would not cause effects that were not analyzed in the 2011 EIR. No new mitigation measures would be required, and impacts would remain less than significant with implementation of the HRS.

Mitigation Measure GHG-1 requires EBMUD to implement Bay Area Air Quality Management District (BAAQMD) recommended Best Management Practices (BMPs) for GHG emissions where feasible, that include at least 15 percent of the fleet being alternative-fueled construction vehicles/equipment, at least 10 percent of the building materials to be from local sources, and at least 50 percent of construction waste or demolition materials to be recycled or reused.

Mitigation Measure GHG-2a requires the direct and indirect GHG emissions to be estimated based on the final project design, and energy efficiency measures shall be incorporated into the project as necessary to meet the Bay Area Air Quality Management District (BAAQMD) GHG significance threshold in effect at the time of project implementation. Mitigation Measure GHG-2b requires non-potable water to be used wherever feasible for equipment and area wash down to minimize GHG emissions associated with increased water demand.

Hazards and Hazardous Materials:
All hazardous materials handling would still be required to be conducted in accordance with legal requirements for routine use, transport, and disposal of hazardous materials. Demolition of Building 1086 would be required so Mitigation Measure HAZ-3: Hazardous Building Materials Surveys and Abatement, would be implemented.

HAZ-3 requires that for any building not already surveyed for lead, a registered environmental assessor or a registered engineer would perform a lead-based paint survey for the structure prior to reuse or demolition. Adequate abatement practices for lead-containing materials, such as containment and/or removal, would be implemented prior to reuse or demolition of each structure that includes lead-containing materials or lead-based paint. For demolition, any polychlorinated biphenyls (PCB)- or Di-2-ethylhexyl phthalate (DEHP)-containing equipment or

fluorescent lights containing mercury vapors would also be removed and disposed of properly.

If removal of a transformer is required, EBMUD or the owner/operator would retain a qualified professional to determine the PCB content of the transformer oil. For removal, the transformer oil would be pumped out with a pump truck and appropriately recycled or disposed of offsite. The drained transformer would be reused or disposed of in accordance with applicable regulations.

There are other requirements that must be met as well. Because the HRS would be located on the West End property, it would be subject to requirements of EBMUD's Operation and Maintenance Plan for the West End property. As noted in the 2011 EIR, construction would have to comply with the following requirements:

- Placement of any property soil outside of the property boundary is permitted only with prior written approval from the Department of Toxic Substances Control (DTSC).
- Excavation or disturbance of any soil deeper than 5 feet below ground surface is permitted only with the prior written approval of DTSC. However, in emergency situations, EBMUD may excavate or disturb soil without prior DTSC approval, provided that the soil management and risk management procedures of the operations and maintenance plan are followed, and that EBMUD notifies DTSC by phone or email of the soil excavation or disturbance within 24 hours of the onset or discovery of the emergency.
- Excavated soil must be appropriately characterized to determine if it is suitable for on-site reuse, or if it must be disposed of at an appropriately licensed off-site disposal facility. At a minimum, the soil must be analyzed for total petroleum hydrocarbons as gasoline, diesel, and motor oil; volatile organic compounds; and Title 22 metals (including analysis of soluble metals concentrations using the Waste Extraction Test [WET] or Toxic Characteristic Leaching Procedure [TCLP] method, as appropriate). Typically, one composite soil sample would be required for each 1,000 cubic yard (cy) of soil excavated. However, individual disposal facilities may require additional samples and/or analyses.
- On-site reuse of excavated soil is only permitted if the sample results indicate that the material is not a hazardous waste and is suitable for reuse at the site. Soil characterization for reuse can be completed prior to removal (in situ, which involves the installation of soil borings for collection of soil samples) or after excavation as described above, provided that a suitable controlled location is available for stockpiling that anticipated volume of soil. For on-site reuse, the soil should not contain constituents at concentrations greater than federal and state hazardous

waste criteria, industrial Preliminary Remediation Goals, or commercial/industrial Environmental Screening Levels (petroleum hydrocarbons only), whichever is most conservative. To characterize the soil for on-site reuse, 1 sample per 250 cy of excavated soil is required for the first 1,000 cy of soils excavated, and 1 additional sample is required for each additional 500 cy of excavated soil.

- Soil that is unsuitable for on-site reuse and which will not be directly hauled to an off-site disposal facility at the time of excavation must be stockpiled in a manner that limits the potential for generation of dust and/or sediment-laden runoff. Soil shall be stockpiled on a minimum 6-mil plastic sheet of sufficient size to contain the entire stockpile and the entire stockpile shall be covered with a minimum 6-mil plastic sheet secured with sandbags at the close of each workday and at all times during inclement weather. All stockpiled soil shall be properly disposed of within 90 days of generation.
- Workers engaged in activities that will disturb or expose subsurface soil must be appropriately trained in and must follow the standard health and safety procedures described in Appendix A of the Operation and Maintenance Plan. Site and action-specific health and safety plans are required for all activities involving soil removal and/or disturbance.
- Appropriate measures shall be taken to minimize the generation of fugitive dust during soil excavation or disturbance activities in general accordance with the BAAQMD "Basic" and "Optional" Particulate Matter (PM) 10 (fugitive dust) control measures.

Because construction of facilities would require excavation, the subsurface soil requirements described above would apply and approval must be obtained from DTSC.

Pursuant to the deed restriction for the West End property, construction at the project site would require written notification to DTSC 15 days in advance, and written approval must be obtained before any soil excavation or disturbance activities. Under the requirements described above, any excavated soil would have to be characterized to determine if it can be reused on site or if it must be disposed of at an appropriately licensed off-site disposal facility. Any soil that is characterized as hazardous waste cannot be reused at the site.

As required by law, FirstElement would develop and file a Hazardous Materials Business Plan for the HRS, which would address the storage of liquid hydrogen. The plan would be filed with the Oakland Fire Department, Office of Emergency Services and would include a complete inventory of all hazardous materials on site, demonstration of compliance with the California Fire Code, emergency response plans and procedures, a training plan, and procedures for documenting compliance with training and inspection requirements. Storage of fuel for retail sale is exempt from the

California Accidental Release Program (CalARP which is administered by Alameda County Department of Environmental Health) and Process Safety Management program (PSM, which is administered by CalOSHA), and thus the HRS would not be subject to requirements for implementation of a risk management program and FirstElement would not be required to submit a risk management plan to prepare for accidental releases of hazardous substances. Hazardous events associated with hydrogen releases would include fire and vapor cloud explosion; however, the likelihood of this type of accident is extremely low with implementation of the safety measures described above. The U.S. Department of Energy has stated that use of hydrogen fuels is not inherently more dangerous than the use of gasoline:

> "*By their nature, all fuels have some degree of danger associated with them. The safe use of any fuel focuses on preventing situations where the three combustion factors—ignition source (spark or heat), oxidant (air), and fuel—are present. With a thorough understanding of fuel properties, we can design fuel systems with appropriate engineering controls and establish guidelines to ensure the safe handling and use of a fuel.*
>
> *A number of hydrogen's properties make it safer to handle and use than the fuels commonly used today. For example, hydrogen is non-toxic. In addition, because hydrogen is much lighter than air, it dissipates rapidly when it is released, allowing for relatively rapid dispersal of the fuel in case of a leak.*" (Department of Energy, 2021)

As noted above, the HRS would be designed and built to meet the safety requirements of the California Building Code, California Fire Code and National Fire Protection Association Hydrogen Technologies Code. Additionally, the site is about 700 feet from Interstate 80 and almost a half mile from the nearest residential receptor. With incorporation of standard safety measures in design and operation of the facility noted above, the project is not expected to result in a significant hazard to the workers, the public or the environment, and safety hazards would be less than significant. The HRS would not cause effects that were not analyzed in the 2011 EIR. No new mitigation measures would be required, and impacts would remain less than significant.

Hydrology/Water Quality:

Construction of the HRS would occur within the West End property and the extent of construction would be less than what would have been required for the construction of the food waste preprocessing facility. Construction-period water quality impacts would be similar to or less than those identified in the 2011 EIR. The HRS would not increase impervious surface area as compared to the proposed level of development envisioned in the 2011 EIR, and thus would not increase the amount of runoff into existing storm drains. The 2011 EIR noted the need for expansion of the stormwater collection system if the stormwater runoff from the West End property would be conveyed to the MWWTP; however, stormwater from the proposed HRS would continue to be conveyed to the existing stormwater collection system as it is now and thus Mitigation Measure HYD-3: Prepare and Implement a Comprehensive Drainage

Plan, is not applicable. No operational changes to stormwater runoff or water quality would be expected. Mitigation Measure HYD-5: Prepare and Implement a Tsunami Response Plan, pertains to the entire MWWTP and would not be affected by construction and operation of the HRS. The HRS would not cause effects that were not analyzed in the 2011 EIR. No new mitigation measures would be required, and impacts would remain less than significant.

HYD-5 requires EBMUD to prepare and implement a Tsunami Response Plan for the MWWTP site that defines emergency response and coordination procedures. The Tsunami Response Plan shall contain information specific to actions that may be necessary related to receipt of a tsunami watch, warning, or as a result of an actual tsunami along the San Francisco Bay.

Noise:

The HRS would generate relatively low levels of operational noise, as compared to the projected noise levels associated with the food waste preprocessing facility, which was expected to generate noise levels up to 85 A-weighted decibels (dBA) due to use of heavy equipment outside the food waste building. Cryogenic pumps generate noise levels of 74 dBA (Linde Cryopump Data Sheet); this is comparable to the ambient noise level at the site, which is estimated to be 72 to 76 dBA due to the proximity of the freeway to the site and would thus comply with City of Oakland Noise Ordinance limits. Delivery and dispensing of hydrogen fuel are not expected to produce noise levels above the ambient level at the nearest sensitive receptor, which is almost a half mile from the project site, so Mitigation Measure NOI-3 for operational noise would not be applicable. Construction would take place at the northern edge of the MWWTP almost a half mile from the closest residential receptors in Oakland. Pile driving is not expected to be necessary for construction of equipment pads, so Mitigation Measure NOI-2 requiring vibration controls for pile driving is not applicable. Mitigation Measure NOI-1, which requires use of best available noise control techniques on construction equipment and specifies limits on construction hours, would be implemented. Noise associated with construction would thus be similar to or less than noise levels projected in the 2011 EIR and would not be expected to be perceptible at the nearest residences. The HRS would not cause effects that were not analyzed in the 2011 EIR. No new mitigation measures would be required, and impacts would remain less than significant.

Mitigation Measure NOI-1: Implement Noise Controls

EBMUD's Construction Specifications (013544-3.4) require compliance with local noise ordinances, and measures that shall be employed to meet applicable City of Oakland Noise Ordinance noise limits include the following:

- Pile driving activities and operation of other types of impact equipment such as jackhammers should be limited to the daytime hours (7 a.m. to 7 p.m. on weekdays);
- If impact pile drivers must be used near the eastern MWWTP boundary, they should not be operated for longer than 10 days to the extent

feasible. If pile driving must occur for longer than 10 days near this boundary, sonic or vibratory pile drivers should be used if feasible;

- "Quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration) should be employed where feasible (where geotechnical and structural requirements allow);
- Pile driving activities with all construction projects at the MWWTP should be coordinated to ensure that these activities do not overlap;
- Best available noise control techniques (including mufflers, intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) will be used for all equipment and trucks as necessary; and,
- If any construction activities must occur during the nighttime hours (7 p.m. to 7 a.m. on weekdays, 8 p.m. to 9 a.m. on weekends), operation of noisier types of equipment should be prohibited as necessary to meet ordinance noise limits.

Public Services:
Construction and operation of the HRS would not place any additional burden on police and fire protection services. The HRS would be remotely monitored and would not require any full-time staff. The 2011 EIR documents that the Land Use Master Plan would not generate population growth and would not generate the need for new or altered government facilities. Operation of the HRS would not change this determination. The HRS would not cause effects that were not analyzed in the 2011 EIR. No new mitigation measures would be required, and impacts would remain less than significant.

Transportation:
The June 2015 Addendum for the Modified Food Waste Facility addressed the realignments of Wake Avenue and Engineer Road, which have since been completed. The Addendum documents that while the road network in the project area has changed since completion of the 2011 EIR, those changes do not result in any new significant impacts. Traffic associated with construction of the HRS would be minor and short term. As noted in the discussion of air quality impacts, there would be less overlap in construction than was considered in the 2011 EIR, which projected overlap in construction of both the food waste facility and biodiesel facility. Construction traffic is expected to be minimal and would not require implementation of a construction management plan, which was specified as a mitigation measure for the more extensive construction involved in the food waste preprocessing facility. A new rail spur would not be required for the HRS and mitigation regarding rail facilities is thus not applicable.

Overall operational traffic impacts would be reduced as compared to the 2011 EIR. Peak hour traffic would be reduced as compared to levels projected in the 2011 EIR. Access to the HRS would be from Engineer Road and use of the driveway would not be expected to create safety hazards because of the low volume of traffic on Engineer Road. The HRS would not cause effects that were not analyzed in the 2011 EIR. No

new mitigation measures would be required, and impacts would remain less than significant.

Utilities:
The HRS would have no effect on wastewater treatment at the MWWTP, and would not require additional water supplies, storm drainage facilities, or solid waste disposal services or facilities. The 2011 EIR includes Mitigation Measure UTIL-6: Coordinate Relocation and Interruptions of Service with Utility Providers During Construction to ensure that utilities are not disrupted during construction. Implementation of this measure would ensure that construction of the HRS does not disrupt any utilities within the project site. The HRS would not cause effects that were not analyzed in the 2011 EIR. No new mitigation measures would be required, and impacts would remain less than significant.

UTIL-6 would require the construction contractor to verify the nature and location of underground utilities before the start of any construction that would require excavation. The contractor will be required to notify and coordinate with public and private utility providers at least 48 hours before the commencement of work adjacent to any utility. The contractor will also be required to notify the service provider in advance of service interruptions to allow the service provider sufficient time to notify customers. In addition, the contractor will be required to coordinate timing of interruptions with the service providers to minimize the frequency and duration of interruptions.

Other CEQA Considerations from 2011 EIR
In 2011, EBMUD had determined that implementing the components of the original LUMP EIR could result in one potentially significant and unavoidable adverse environmental impact that could not be reduced to a less-than-significant level after carrying out associated mitigation measures. The combined excess cancer risk from toxic air contaminant emissions associated with the biodiesel production facility, food waste preprocessing facility and other LUMP elements would be 18.5 per million, which is primarily attributable to mobile equipment operating within the food waste preprocessing facility at the MWWTP. The food waste preprocessing project's community risk and hazards impact is the only significant unavoidable cumulative air quality impact associated with community risks identified for the LUMP EIR. EBMUD completed an Addendum to the LUMP EIR in May 2021 to replace the food waste preprocessing project with the HRS project.

In 2011, EBMUD adopted Findings and a Statement of Overriding Considerations for the LUMP EIR concerning toxic air contaminant emissions. EBMUD's May 2021 Addendum regarding the HRS indicated that the HRS replacement of the food waste processing plant do not involve significant new environmental effects not analyzed in the LUMP EIR nor do they substantially increase the severity of significant effects previously identified in the LUMP EIR. EBMUD did not adopt findings of overriding considerations for the HRS project for these reasons. Similarly, no statement of overriding considerations is necessary for the CEC to approve funding of grant ARV-21-017.

Truck Maintenance Facility Upgrade

The scope of work under grant agreement ARV-21-017 also includes modification to a truck maintenance facility at 1755 Adams Avenue in San Leandro, California. The facility requires third-party assessment and planning; construction of maintenance bay doors; and upgrades to existing monitoring and alarm systems, ventilation, and other electrical equipment. The CEQA exemption under California Code of Regulations, title 14, section 15301, "Existing Buildings," applies. Section 15301 covers the operation, maintenance, or minor alteration of existing public or private structures, facilities, mechanical equipment, involving negligible or no expansion of existing or former use. The modifications are for compliance with hydrogen-related requirements and would cause negligible or no expansion of the existing use. Therefore, the modifications will have no significant effect on the environment and are categorically exempt under section 15301.

California Energy Commission
July 15, 2021 Business Meeting -- Agenda Item #7

Center for Transportation and the Environment, Inc., "NorCal Drayage" (ARV-21-017)

The full California Environmental Quality Act (CEQA) supporting documentation for ARV-21-017 can be obtained at:

http://cte.tv/ceqa-references/

(This web page is maintained by the Center for Transportation and the Environment, Inc.)

The following page provides a list of these documents.

ARV-21-017, Center for Transportation and the Environment, Inc. California Environmental Quality Act Backup Materials (Part 2 for CEC Business Meeting) 07/15/2021

These documents can be found at the web page, maintained by the Center for Transportation and the Environment, Inc., shown on the CEC's backup documents reference page.

Item	Short reference	Description or citation
1	East Bay Municipal Utility District's LUMP EIR (2011)	East Bay Municipal Utility District. *Environmental Impact Report Main Wastewater Treatment Plant Land Use Master Plan*. May 2011.
2	EBMUD's Resolution No. 33834-11 certifying the EIR	East Bay Municipal Utility District. *Certifying the Final Environmental Impact Report for the Main Wastewater Treatment Plant Land Use Master Plan, Making Findings, Approving the Mitigation Monitoring and Reporting Program, and Approving the Master Plan.* June 2011.
3	Addendum to the EIR (2021)	East Bay Municipal Utility District. *Addendum to Main Wastewater Treatment Plant Land Use Master Plan Environmental Impact Report (EIR) – FirstElement Fuel Hydrogen Refueling Station.* May 13, 2021.
4	EBMUD's Agenda for its May 25, 2021 Board meeting	Board of Directors East Bay Municipal Utility District. *Agenda. Tuesday, May 25, 2021.*
5	Agenda backup materials for Item 12.1-12.3	East Bay Municipal Utility District. *Agenda No. 12.1-12.3. Authorize the Hydrogen Fueling Station Lease Agreement.* May 2021.
6	EBMUD's Action Summary from its May 25, 2021 meeting	Board of Directors – East Bay Municipal Utility District. *Action Summary. Regular Meeting of the Board of Directors. East Bay Municipal Utility District.* May 2021.
7	EBMUD's filed Notice of	East Bay Municipal Utility District. *Notice of Determination.* May 2021.

	Determination (NOD) for the Addendum	

Print Form

Notice of Determination

Appendix D

To:

☒ Office of Planning and Research

U.S. Mail: P.O. Box 3044, Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113, Sacramento, CA 95814

☐ County Clerk
County of: _____
Address: _____

From:

Public Agency: California Energy Commission
Address: 1516 Ninth Street, Sacramento, CA 95814
Contact: Alex Wan
Phone: 916-805-7477

Lead Agency (if different from above):
East Bay Municipal Utility District
Address: 375 Eleventh Street, Oakland, CA 94607-4240
Contact: Matthew Hoeft
Phone: 510-287-0214

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): _____

Project Title: NorCal Drayage

Project Applicant: Center for Transportation and the Environment, Inc.

Project Location (include county): 2450 Engineer Road, Oakland, CA 94607 (Alameda County)

1755 Adams Avenue in San Leandro, CA 94577 (Alameda County)

Project Description:

The CEC's grant agreement ARV-21-017 funds a hydrogen refueling project. In May 2011, the East Bay Municipal Utility District (EBMUD) completed an Environmental Impact Report regarding its Land Use Master Plan, which included the site. EBMUD prepared an Addendum to the Land Use Master Plan EIR in May 2021 for a hydrogen refueling station (HRS) to fuel heavy-duty fuel cell trucks serving the Port of Oakland. The CEC finds the proposed grant project's hydrogen refueling project presents no new significant or substantially more severe environmental impacts beyond those already considered.

In addition, the scope of work under grant agreement ARV-21-017 also includes modification to a truck maintenance facility at 1755 Adams Avenue in San Leandro, California. The facility requires third-party assessment and planning; changes to the construction of maintenance bay doors; and upgrades to existing monitoring and alarm systems, ventilation, and other electrical equipment. The CEQA exemption under California Code of Regulations, title 14, section 15301, "Existing Buildings," applies. Section 15301 covers the operation, maintenance, or minor alteration of existing public or private structures, facilities, mechanical equipment, involving negligible or no expansion of existing or former use. The modifications are for compliance with hydrogen-related requirements and would cause negligible or no expansion of the existing use. Therefore, the modifications will have no significant effect on the environment and are categorically exempt under section 15301.

This is to advise that the California Energy Commission has approved the above
(☐ Lead Agency or ☒ Responsible Agency)

described project on 7/15/2021 (date) and has made the following determinations regarding the above described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☒ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☐ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☐ were ☒ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☐ was ☒ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:

CEQA supporting documentation for ARV-21-017 can be obtained at: http://cte.tv/ceqa-references/

Signature (Public Agency): Alexander Wan Title: Associate Energy Specialist

Date: _____ Date Received for filing at OPR: _____

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code. Revised 2011

RESOLUTION NO: 21-0715-7b

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: CENTER FOR TRANSPORTATION AND THE ENVIRONMENT, INC.

WHEREAS, to fulfill duties under the California Environmental Quality Act ("CEQA"), the East Bay Municipal Utility District (EBMUD) prepared a 2011 Environmental Impact Report (EIR) for its Main Wastewater Treatment Plant Land Use Master Plan (State Clearinghouse #2009112073) (LUMP EIR); and

WHEREAS, due to the originally-proposed food waste processing plant and biodiesel production facility not being built, and the current proposal to build a hydrogen refueling station for drayage trucks instead, in May 2021, EBMUD prepared an EIR Addendum to the 2011 EIR; and

WHEREAS, EBMUD's May 2021 Addendum indicated that the hydrogen refueling station would not involve significant new environmental effects not analyzed in the LUMP EIR nor would it substantially increase the severity of significant effects previously identified in the LUMP EIR; and

WHEREAS, the Center for Transportation and the Environment, Inc. has represented that in addition to the hydrogen refueling station, upgrades to a maintenance facility in San Leandro, California would be needed to maintain the trucks; and

WHEREAS, the truck maintenance facility upgrades would fall within the CEQA exemption under California Code of Regulations, title 14, section 15301, "Existing Buildings," because the modifications for compliance with hydrogen-related requirements would cause negligible or no expansion of the existing use; and

WHEREAS, the State Energy Resources Conservation and Development Commission ("Energy Commission") is considering proposed Agreement ARV-21-017 with the Center for Transportation and the Environment, Inc. for a $9,185,045 grant to construct and operate a hydrogen refueling station, upgrade the truck maintenance facility, and to conduct workforce training and development and community outreach; and

WHEREAS, the Energy Commission has reviewed the 2011 Environmental Impact Report, 2021 Addendum to the 2011 Environmental Impact Report, and various EBMUD documents, which establish mitigation measures for the Land Use Master Plan development, including the hydrogen refueling project development and operation; and

WHEREAS, the Energy Commission has considered the proposed design, facilities, construction, and operation of the hydrogen refueling project, with regard to environmental impacts; and

WHEREAS, the Energy Commission has used its own independent judgment to consider the potential environmental impacts of grant Agreement ARV-21-017 and the hydrogen refueling project;

THEREFORE BE IT RESOLVED, that the Energy Commission finds, on the basis of the entire record before it that, with the implementation of the mitigation measures and conditions of approval previously determined, the proposed hydrogen refueling project presents no new significant or substantially more severe environmental impacts beyond those already considered; and

BE IT FURTHER RESOLVED, that the Energy Commission finds that the upgrade to an existing truck maintenance facility is exempt from CEQA; and

BE IT FURTHER RESOLVED, that the Energy Commission finds that none of the circumstances contained in the California Code of Regulations, title 14, section 15162 are present, so that no subsequent or supplemental environmental review is required; and

BE IT FURTHER RESOLVED, that the Energy Commission approves Agreement ARV-21-017 with the Center for Transportation and Environment, Inc. for a $9,185,045 grant, and

BE IT FURTHER RESOLVED, that the Executive Director or his/her designee shall execute the same on behalf of the Energy Commission.

CERTIFICATION

The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true, and correct copy of a Resolution duly and regularly adopted at a meeting of the CEC held on July 15, 2021.

AYE: [List Commissioners]
NAY: [List Commissioners]
ABSENT: [List Commissioners]
ABSTAIN: [List Commissioners]

_____
Liza Lopez
Secretariat