

ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017  
PROJECT BASELINE AGREEMENT

EV Oasis South Project

Resolution

(to be completed by CTC)

1. FUNDING PROGRAM

- ☐ Active Transportation Program
- ☐ Local Partnership Program (Competitive)
- ☐ Solutions for Congested Corridors Program
- ☐ State Highway Operation and Protection Program
- ☒ Trade Corridor Enhancement Program

2. PARTIES AND DATE

- 2.1 This Project Baseline Agreement (Agreement) effective on (will be completed by CTC), is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), the Project Applicant, bp Products, North America (bp pulse), and the Implementing Agency, sometimes collectively referred to as the "Parties".

3. RECITAL 6/28/2023

- 3.1 Whereas at its 6/28/2024 meeting the Commission approved the Trade Corridor Enhancement Program and included in this program of projects the EV Oasis South Project, the parties are entering into this Project Baseline Agreement to document the project cost, schedule, scope and benefits, as detailed on the Project Programming Request Form attached hereto as **Exhibit A**, the Project Report attached hereto as **Exhibit B**, the Performance Metrics Form, if applicable, attached hereto as **Exhibit C**, as the baseline for project monitoring by the Commission.
- 3.2 The undersigned Project Applicant certifies that the funding sources cited are committed and expected to be available; the estimated costs represent full project funding; and the scope and description of benefits is the best estimate possible.

4. GENERAL PROVISIONS

The Project Applicant, Implementing Agency, and Caltrans agree to abide by the following provisions:

- 4.1 To meet the requirements of the Road Repair and Accountability Act of 2017 (Senate Bill [SB] 1, Chapter 5, Statutes of 2017) which provides the first significant, stable, and on-going increase in state transportation funding in more than two decades.
- 4.2 To adhere, as applicable, to the provisions of the Commission:
- ☐ Resolution, "Adoption of Program of Projects for the Active Transportation Program", dated
- ☐ Resolution, "Adoption of Program of Projects for the Local Partnership Program", dated
- ☐ Resolution, "Adoption of Program of Projects for the Solutions for Congested Corridors Program", dated
- ☐ Resolution, "Adoption of Program of Projects for the State Highway Operation and Protection Program", dated
- ☒ Resolution 6/28/2023, "Adoption of Program of Projects for the Trade Corridor Enhancement Program", dated G-23-46

- 4.3 All signatories agree to adhere to the Commission's Guidelines. Any conflict between the programs will be resolved at the discretion of the Commission.
- 4.4 All signatories agree to adhere to the Commission's SB 1 Accountability and Transparency Guidelines and policies, and program and project amendment processes.
- 4.5 BP Products North America Inc. ("bp pulse") agrees to secure funds for any additional costs of the project.
- 4.6 BP Products North America Inc. ("bp pulse") agrees to report to Caltrans on a quarterly basis; on the progress made toward the implementation of the project, including scope, cost, schedule, and anticipated benefits/performance metric outcomes.
- 4.7 Caltrans agrees to prepare program progress reports on a semi-annual basis and include information appropriate to assess the current state of the overall program and the current status of each project identified in the program report.
- 4.8 BP Products North America Inc. ("bp pulse") agrees to submit a timely Completion Report and Final Delivery Report as specified in the Commission's SB 1 Accountability and Transparency Guidelines.
- 4.9 BP Products North America Inc. ("bp pulse") agrees to submit a timely Project Performance Analysis as specified in the Commission's SB 1 Accountability and Transparency Guidelines.
- 4.10 All signatories agree to maintain and make available to the Commission and/or its designated representative, all work related documents, including without limitation engineering, financial and other data, and methodologies and assumptions used in the determination of project benefits and performance metric outcomes during the course of the project, and retain those records for six years from the date of the final closeout of the project. Financial records will be maintained in accordance with Generally Accepted Accounting Principles.
- 4.11 The Inspector General of the Independent Office of Audits and Investigations has the right to audit the project records, including technical and financial data, of the Department of Transportation, the Project Applicant, the Implementing Agency, and any consultant or sub-consultants at any time during the course of the project and for six years from the date of the final closeout of the project, therefore all project records shall be maintained and made available at the time of request. Audits will be conducted in accordance with Generally Accepted Government Auditing Standards.

## 5. SPECIFIC PROVISIONS AND CONDITIONS

- 5.1 Project Schedule and Cost  
See Project Programming Request Form, attached as Exhibit A.
- 5.2 Project Scope  
See Project Report or equivalent, attached as Exhibit B. At a minimum, the attachment shall include the cover page, evidence of approval, executive summary, and a link to or electronic copy of the full document.
- 5.3 Performance Metrics  
See Performance Metrics Form, if applicable, attached as Exhibit C.
- 5.4 Additional Provisions and Conditions *(Please attach an additional page if additional space is needed.)*

item 3.2 is amended to read

The undersigned project applicant certifies that funds are in the process of being [formally] committed within the bp structure...

Item 4.5 is amended to read ..bp Prodcuts NA agrees to secure fund for any additional costs of the projects as submitted in Exhibit A

### Attachments:

- Exhibit A: Project Programming Request Form  
Exhibit B: Project Report  
Exhibit C: Performance Metrics Form *(if applicable)*

SIGNATURE PAGE  
TO  
PROJECT BASELINE AGREEMENT

Project Name 

EV Oasis South Project

Resolution

(to be completed by CTC)

Sujay Sharma

DocuSigned by:

*Sujay Sharma*

2F514019376344F...

CEO bp Pulse Americas

5/16/2024

Date

Project Applicant

Implementing Agency

Date

District Director  
California Department of Transportation

Date

Tony Tavares  
Director  
California Department of Transportation

Date

Executive Director  
California Transportation Commission

Amendment (Existing Project) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				Date	06/04/2024 15:40:31
Programs <input type="checkbox"/> LPP-C <input type="checkbox"/> LPP-F <input type="checkbox"/> SCCP <input type="checkbox"/> TCEP <input type="checkbox"/> STIP <input type="checkbox"/> Other					
District	EA	Project ID	PPNO	Nominating Agency	
08			6199	Caltrans HQ	
County	Route	PM Back	PM Ahead	Co-Nominating Agency	
San Bernardino Cou				Southern California Association of Governments	
Riverside County				MPO	Element
				NON-MPO	Local Assistance
Project Manager/Contact			Phone	Email Address	
Sophia Racke			949-899-0444	sophia@buildmomentum.io	

Project Title

EV Oasis South A

Location (Project Limits), Description (Scope of Work)

In Ontario, on Guasti Road. Construct and install medium- and heavy-duty electric chargers and infrastructure.  
In Coachella, on Dillon Road. Construct and install medium- and heavy-duty electric chargers and infrastructure.  
In Barstow, on Lenwood Road. Construct and install medium- and heavy-duty electric chargers and infrastructure.

The project seeks to deploy microgrid-enabled, electric charging equipment for heavy-duty trucks at three TA and Petro travel centers across Southern California along the I-5, I-15, I-10, I-40, and State Hwy 99 corridors.

Component	Implementing Agency
PA&ED	bp Products North America
PS&E	bp Products North America
Right of Way	bp Products North America
Construction	bp Products North America

Legislative Districts

Assembly:	52	Senate:	20	Congressional:	35
-----------	----	---------	----	----------------	----

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase	01/01/2022	01/01/2022
Circulate Draft Environmental Document	08/01/2023	08/01/2023
Draft Project Report	12/31/2023	12/31/2023
End Environmental Phase (PA&ED Milestone)	12/31/2023	12/31/2023
Begin Design (PS&E) Phase	06/01/2023	04/05/2024
End Design Phase (Ready to List for Advertisement Milestone)	06/30/2024	06/15/2024
Begin Right of Way Phase	07/01/2023	07/01/2023
End Right of Way Phase (Right of Way Certification Milestone)	12/31/2023	12/31/2023
Begin Construction Phase (Contract Award Milestone)	04/01/2024	03/01/2025
End Construction Phase (Construction Contract Acceptance Milestone)	12/31/2025	07/01/2026
Begin Closeout Phase	11/01/2025	07/02/2026
End Closeout Phase (Closeout Report)	06/30/2026	06/30/2027

Date 06/04/2024 15:40:31

Purpose and Need

BP Products North America Inc. (“bp pulse”), in collaboration with TA Operating LLC (d/b/a TravelCenters of America and Petro Stopping Centers, a subsidiary of BPPNA), and Build Momentum, Inc., and supported by the California Department of Transportation (Caltrans) to progress the recommendations of the West Coast Clean Transit Corridor Initiative, along with support from numerous air districts across California—aims to develop the implementation of Travel Centers of America’s (TA) “EV Oasis” project at six TA locations situated along the I-5, I-10, I-15, State Hwy-99, and I-40 corridors (the “TA Sites”). This initiative is a testament to BP Products North America Inc.’s commitment towards enhancing sustainable transportation infrastructure.

The EV Oasis Project has the potential to create jobs, reduce greenhouse gas emissions from freight transportation, help eliminate health-harming diesel emissions from trucks, and improve grid resiliency along the west coast corridor. The project will include collaboration with trade experts in high voltage electricity, solar installation, EV charging unit installation, EV charging infrastructure maintenance, and zero emission vehicle (ZEV) maintenance, creating a new wave of green collar jobs.

The project team will install six high-power DC Fast Chargers (DCFCs, 400 kW) medium- and heavy-duty (MHD) and six 50kW overnight chargers for electric truck charging stations at six TA sites. Each site will also include a 400 kW solar canopy, 1 MW/3.9MWh BESS, and at least one pull-through stall per CP. Energy storage at each site will be allotted to offer incremental truck parking spots on key thoroughfares where shortages are acute.

Need: There remain significant unknowns related to zero-emission technologies for MHD applications, preventing large scale investment in assets and infrastructure. This includes, among many other factors, uncertainty around utility pricing, equipment costs, future utilization rates, and technology standardization. However, zero-emission electric vehicles cannot operate without adequate fueling infrastructure. Therefore, it will be necessary to utilize public-private partnership models and engage industries, communities, and public agencies across the local, state, and federal levels to de-risk and rapidly scale investment and deployment of these transportation technologies, ultimately delivering substantial public health and environmental benefits.

The EV Oasis Project aspires to lay the groundwork for progressive development and anticipates providing a multitude of benefits. The project is designed with the hope of significantly reducing petroleum consumption—potentially by an estimated average of 1,883,263 million gallons of diesel per year. Over the project’s 20-year lifespan, this could amount to over 37.7 million gallons. In doing so, it could result in an average annual net greenhouse gas (GHG) emissions reduction, with potential savings estimated at \$3,960,000 per year, which could lead to more than \$79,000,000 in cumulative savings over the project’s lifetime. These figures represent the project’s potential outcomes. The anticipated reduction in diesel consumption may also lead to a considerable decrease in criteria air pollutant emissions. Safety benefits from the project could be significant as well, with total savings estimated at over \$56,350,000. The preliminary benefit-cost analysis of the project suggests a benefit-cost ratio of 2.802 and a net present value of \$71,966,470, indicating a positive forecast for its economic viability.

NHS Improvements ☐ YES ☒ NO

Roadway Class NA

Reversible Lane Analysis ☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals ☒ YES ☐ NO

Reduce Greenhouse Gas Emissions ☒ YES ☐ NO

Project Outputs

Category	Outputs	Unit	Total
ZEV infrastructure	Energy Storage System - Capacity	MWh	11.7
ZEV infrastructure	Solar Capacity	MW	1.2
ZEV infrastructure	Number of DC charging ports	Each	36
ZEV infrastructure	Number of Locations with ZEV infrastructure	Each	3
ZEV infrastructure	Number of vehicle stalls available for charging	Each	36
ZEV infrastructure	Simultaneous EV charging capacity	kW	8,100

Date 06/04/2024 15:40:31

Additional Information

Caltrans, in partnership with the Southern California Association of Governments, is the nominating agency, whereas BP Products North America Inc. is the implementing agency. An agreement between these project partners, including a financial arrangement between Caltrans/ partnering public agency, the private partner, and the public agencies, will be forthcoming, depicting the responsibility of the parties.

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Congestion Reduction	TCEP	Change in Daily Vehicle Hours of Delay	Hours	0	0	0
	TCEP	Change in Daily Truck Hours of Delay	Hours	0	0	0
Throughput (Freight)	TCEP	Change in Truck Volume	# of Trucks	0	0	0
	TCEP	Change in Rail Volume	# of Trailers	0	0	0
			# of Containers	0	0	0
Velocity (Freight)	TCEP	Travel Time or Total Cargo Transport Time	Hours	0	0	0
Air Quality & GHG (only 'Change' required)	LPPC, SCCP, TCEP, LPPF	Particulate Matter	PM 2.5 Tons	-12.34	0	-12.34
			PM 10 Tons	-12.75	0	-12.75
	LPPC, SCCP, TCEP, LPPF	Carbon Dioxide (CO2)	Tons	-421,850.81	0	-421,850.81
	LPPC, SCCP, TCEP, LPPF	Volatile Organic Compounds (VOC)	Tons	-151	0	-151
	LPPC, SCCP, TCEP, LPPF	Sulphur Dioxides (SOx)	Tons	-5.5	0	-5.5
	LPPC, SCCP, TCEP, LPPF	Carbon Monoxide (CO)	Tons	-615.44	0	-615.44
	LPPC, SCCP, TCEP, LPPF	Nitrogen Oxides (NOx)	Tons	-1,707.88	0	-1,707.88
Safety	LPPC, SCCP, TCEP, LPPF	Number of Fatalities	Number	-0.54	0	-0.54
	LPPC, SCCP, TCEP, LPPF	Fatalities per 100 Million VMT	Number	-0.15892	0	-0.15892
	LPPC, SCCP, TCEP, LPPF	Number of Serious Injuries	Number	-12.17	0	-12.17
	LPPC, SCCP, TCEP, LPPF	Number of Serious Injuries per 100 Million VMT	Number	-3.6	0	-3.6
Economic Development	LPPC, SCCP, TCEP, LPPF	Jobs Created (Only 'Build' Required)	Number	24	0	24
Cost Effectiveness (only 'Change' required)	LPPC, SCCP, TCEP, LPPF	Cost Benefit Ratio	Ratio	2.802	0	2.802
Truck & Vehicle Volume (Freight)	TCEP	Existing Average Annual Vehicle Volume on Project Segment	Percent	0	0	0
	TCEP	Existing Average Annual Truck Percent on Project Segment	Percent	0	0	0
	TCEP	Estimated Year 20 Average Annual Vehicle Volume on Project Segment with Project	Number	0	0	0
	TCEP	Estimated Year 20 Average Annual Truck Percent on Project Segment with Project	Number	0	0	0

District	County	Route	EA	Project ID	PPNO
08	San Bernardino County, Riverside County				6199

Project Title

EV Oasis South A

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	23-24	24-25	25-26	26-27	27-28	28-29+	Total	
E&P (PA&ED)									bp Products North America
PS&E		500	1,250					1,750	bp Products North America
R/W SUP (CT)									bp Products North America
CON SUP (CT)									bp Products North America
R/W									bp Products North America
CON		2,940	35,446					38,386	bp Products North America
TOTAL		3,440	36,696					40,136	

Proposed Total Project Cost (\$1,000s)									Notes
Component	Prior	23-24	24-25	25-26	26-27	27-28	28-29+	Total	
E&P (PA&ED)									
PS&E		875						875	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			19,193					19,193	
TOTAL		875	19,193					20,068	

Fund #1:	Local Funds - Private Funds (Committed)								Program Code
	Existing Funding (\$1,000s)								20.10.400.100
Component	Prior	23-24	24-25	25-26	26-27	27-28	28-29+	Total	Funding Agency
E&P (PA&ED)									bp Products North America
PS&E		500	1,250					1,750	Private match from TravelCenters of America
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		2,940	7,351					10,291	
TOTAL		3,440	8,601					12,041	

Proposed Funding (\$1,000s)									Notes
Component	Prior	23-24	24-25	25-26	26-27	27-28	28-29+	Total	
E&P (PA&ED)									
PS&E		875						875	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			5,146					5,146	
TOTAL		875	5,146					6,021	



Fund #2:	State SB1 TCEP - Trade Corridors Enhancement Account (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.210.310
Component	Prior	23-24	24-25	25-26	26-27	27-28	28-29+	Total	Funding Agency
E&P (PA&ED)									Caltrans HQ Caltrans State TCEP Funds
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			28,095					28,095	
TOTAL			28,095					28,095	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			14,047					14,047	
TOTAL			14,047					14,047	

Complete this page for amendments only					Date 06/04/2024 15:40:31
District	County	Route	EA	Project ID	PPNO
08	San Bernardino County, Riverside County				6199

SECTION 1 - All Projects

Project Background

The project will support the initial phases of deploying high-power DC fast charging infrastructure (EVSE) to enable zero-emission goods movement throughout California’s critical goods movement corridors. This project proposes initial deployments across several TravelCenters of America (TA) sites in Southern California. The project builds upon the recommendations contained within the West Coast Clean Transit Corridor Initiative (WCCTCI) Final Report published in June 2020 by HDR, CALSTART, S Curve Strategies, and Ross Strategic.

This project seeks to jumpstart the scale deployment of publicly accessible charging and alternative fueling infrastructure for medium- and heavy-duty transportation. The project will seek to identify and design early sites for cost-effective deployments, avoiding the need for substantial utility infrastructure upgrades. While managing costs, the project will deploy a viable network of fueling infrastructure to support early and rapid adoption of zero-emission vehicle and equipment technologies. The project will achieve substantial emissions reductions while advancing the goals of the California Sustainable Freight Action Plan, the California Freight Mobility Plan, and many other environmental, sustainability, public health, and climate change goals and policies established at the local, state, and federal levels.

Programming Change Requested

BP Products North America Inc. (“bp pulse”) is requesting to make the following changes to the project scope:

- Rename BP Products North America Inc. (“bp pulse”) as the implementing agency.
- Reduce the number of sites from seven to the following six: TA Coachella, Petro Ontario, TA Barstow, TA Wheeler Ridge, Petro Wheeler Ridge, and TA Buttonwillow (remove TA Ontario)
- Split the project into two Electronic Project Programming Requests, divided by site locations in Southern California Association of Governments (SCAG) and San Joaquin Valley Air Pollution Control District (SJVAPCD) jurisdictions.
- Deploy six 50kW “overnight” end zone chargers per site, instead of six 40kW chargers for overnight charging.
- Instead of deploying two 500kW charging units and two 350kW charging units, deploy six 400kW charging units plus six CP controllers at pull through stalls at each site in order to future proof the site for 1 MW charging when the technology becomes available.
- Install a 400kW solar canopy instead of 1 MW.
- Remove the deployment of 100 kW fuel cell.
- Changes to the project milestone schedule

Reason for Proposed Change

The proposed scope change for our project arises from a series of strategic and regulatory adjustments following the acquisition of TA by BP Products North America Inc (BPPNA). This transition necessitates adherence to BPPNA's operational guidelines, notably the exclusion of hydrogen from all U.S. sites. Additionally, in response to a recommendation from Caltrans, the project, initially submitted as a single endeavor, is now divided into two Electronic Project Programming Request (ePPRs) to better align with regional regulatory frameworks: one for the San Joaquin Valley Air Pollution Control District (SJVAPCD) and another for the Southern California Association of Governments (SCAG).

BPPNA has secured grant funds from other sources to develop the Ontario site. In an effort to optimize resources and maximize benefits for the state of California, BPPNA has decided to withdraw the Ontario site from the SB1 Program scope. The removal of the Ontario site from the SB1 Program will enable a more concentrated and effective application of resources across the remaining project scope, including increased charging capacity.

Understanding that the removal of a site may affect project benefits (though the change will not affect benefits to the state of California, as the TA Ontario site will still be developed and funded by other grants), the project team reassessed results in the Benefit-Cost Analysis (BCA) model, reviewed and approved by Caltrans before submitting the application. During this review, the new bp pulse team noticed augmented utilization projections and advocated for a shift in the project’s BCA utilization rate from 80% to 20%. This adjustment underscores BP's strategy to refine project outcomes and efficiency, highlighting a reevaluation of resource allocation and project deliverables. The project team worked closely with Caltrans to determine what changes to the equipment could be made to ensure California receives the same, or better benefits.

If proposed change will delay one or more components, clearly explain 1) reason for the delay, 2) cost increase related to the delay, and 3) how cost increase will be funded

A delay to receive and complete a legal review of the grant agreement documents caused the project team to delay the start of construction until all proposed changes are approved by the CTC and the grant agreement is executed. There is no cost increase related to the delay.

Other Significant Information

The project scope change is expected to have a slight increase to project benefits as described in the original application.

SECTION 2 - For SB1 Project Only

Project Amendment Request (Please follow the individual SB1 program guidelines for specific criteria)

The project team worked with Caltrans staff to amend the Project's Benefit Cost Analysis model to reflect the proposed scope changes and ensure benefits are the same or better. A copy of the revised model and summary will be attached to the Scope Change Request Form and Memo.

Approvals

I hereby certify that the above information is complete and accurate and all approvals have been obtained for the processing of this amendment request.

Name (Print or Type)	Signature	Title	Date

SECTION 3 - All Projects

Attachments

- 1) Concurrence from Implementing Agency and/or Regional Transportation Planning Agency
- 2) Project Location Map

Amendment (Existing Project) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				Date	06/04/2024 15:39:33
Programs <input type="checkbox"/> LPP-C <input type="checkbox"/> LPP-F <input type="checkbox"/> SCCP <input type="checkbox"/> TCEP <input type="checkbox"/> STIP <input checked="" type="checkbox"/> Other					
District	EA	Project ID	PPNO	Nominating Agency	
06			6240	Caltrans HQ	
County	Route	PM Back	PM Ahead	Co-Nominating Agency	
Kern County				San Joaquin Valley Unified Air Pollution Control District	
				MPO	Element
				NON-MPO	Local Assistance
Project Manager/Contact			Phone	Email Address	
Sophia Racke			949-899-0444	sophia@buildmomentum.io	

Project Title

EV Oasis South B

Location (Project Limits), Description (Scope of Work)

In Arvin, on Wheeler Ridge Road. Construct and install medium- and heavy-duty electric chargers and infrastructure.  
In Lebec, on Dennis McCarth Drive. Construct and install medium- and heavy-duty electric chargers and infrastructure.  
In Buttonwillow, on Highway 58. Construct and install medium- and heavy-duty electric chargers and infrastructure.

The project seeks to deploy microgrid-enabled, electric charging equipment for heavy-duty trucks at three TA and Petro travel centers across Southern California along the I-5, I-15, I-10, I-40, and State Hwy 99 corridors.

Component	Implementing Agency
PA&ED	bp Products North America
PS&E	bp Products North America
Right of Way	bp Products North America
Construction	bp Products North America

Legislative Districts

Assembly:	32	Senate:	12	Congressional:	20,23
-----------	----	---------	----	----------------	-------

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase	01/01/2022	01/01/2022
Circulate Draft Environmental Document	08/01/2023	08/01/2023
Draft Project Report	12/31/2023	12/31/2023
End Environmental Phase (PA&ED Milestone)	12/31/2023	12/31/2023
Begin Design (PS&E) Phase	06/01/2023	04/05/2024
End Design Phase (Ready to List for Advertisement Milestone)	06/30/2024	06/15/2024
Begin Right of Way Phase	07/01/2023	07/01/2023
End Right of Way Phase (Right of Way Certification Milestone)	12/31/2023	12/31/2023
Begin Construction Phase (Contract Award Milestone)	04/01/2024	03/01/2025
End Construction Phase (Construction Contract Acceptance Milestone)	12/31/2025	12/31/2026
Begin Closeout Phase	11/01/2025	01/01/2027
End Closeout Phase (Closeout Report)	06/30/2026	12/31/2027

Date 06/04/2024 15:39:33

Purpose and Need

BP Products North America Inc. (“bp pulse”), in collaboration with TA Operating LLC (d/b/a TravelCenters of America and Petro Stopping Centers, a subsidiary of BPPNA), and Build Momentum, Inc., and supported by the California Department of Transportation (Caltrans) to progress the recommendations of the West Coast Clean Transit Corridor Initiative, along with support from numerous air districts across California—aims to develop the implementation of Travel Centers of America’s (TA) “EV Oasis” project at six TA locations situated along the I-5, I-10, I-15, State Hwy-99, and I-40 corridors (the “TA Sites”). This initiative is a testament to BP Products North America Inc.’s commitment towards enhancing sustainable transportation infrastructure.

The EV Oasis Project has the potential to create jobs, reduce greenhouse gas emissions from freight transportation, help eliminate health-harming diesel emissions from trucks, and improve grid resiliency along the west coast corridor. The project will include collaboration with trade experts in high voltage electricity, solar installation, EV charging unit installation, EV charging infrastructure maintenance, and zero emission vehicle (ZEV) maintenance, creating a new wave of green collar jobs.

The project team will install six high-power DC Fast Chargers (DCFCs, 400 kW) medium- and heavy-duty (MHD) and six 50kW overnight chargers for electric truck charging stations at six TA sites. Each site will also include a 400 kW solar canopy, 1 MW/3.9MWh BESS, and at least one pull-through stall per CP. Energy storage at each site will be allotted to offer incremental truck parking spots on key thoroughfares where shortages are acute.

Need: There remain significant unknowns related to zero-emission technologies for MHD applications, preventing large scale investment in assets and infrastructure. This includes, among many other factors, uncertainty around utility pricing, equipment costs, future utilization rates, and technology standardization. However, zero-emission electric vehicles cannot operate without adequate fueling infrastructure. Therefore, it will be necessary to utilize public-private partnership models and engage industries, communities, and public agencies across the local, state, and federal levels to de-risk and rapidly scale investment and deployment of these transportation technologies, ultimately delivering substantial public health and environmental benefits.

The EV Oasis Project aspires to lay the groundwork for progressive development and anticipates providing a multitude of benefits. The project is designed with the hope of significantly reducing petroleum consumption—potentially by an estimated average of 1,883,263 million gallons of diesel per year. Over the project’s 20-year lifespan, this could amount to over 37.7 million gallons. In doing so, it could result in an average annual net greenhouse gas (GHG) emissions reduction, with potential savings estimated at \$3,960,000 per year, which could lead to more than \$79,000,000 in cumulative savings over the project’s lifetime. These figures represent the project’s potential outcomes. The anticipated reduction in diesel consumption may also lead to a considerable decrease in criteria air pollutant emissions. Safety benefits from the project could be significant as well, with total savings estimated at over \$56,350,000. The preliminary benefit-cost analysis of the project suggests a benefit-cost ratio of 2.802 and a net present value of \$71,966,470, indicating a positive forecast for its economic viability.

NHS Improvements ☐ YES ☒ NO

Roadway Class NA

Reversible Lane Analysis ☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals ☒ YES ☐ NO

Reduce Greenhouse Gas Emissions ☒ YES ☐ NO

Project Outputs

Category	Outputs	Unit	Total
ZEV infrastructure	Energy Storage System - Capacity	MWh	11.7
ZEV infrastructure	Solar Capacity	MW	1.2
ZEV infrastructure	Number of DC charging ports	Each	36
ZEV infrastructure	Number of Locations with ZEV infrastructure	Each	3
ZEV infrastructure	Number of vehicle stalls available for charging	Each	36
ZEV infrastructure	Simultaneous EV charging capacity	kW	8,100

Date 06/04/2024 15:39:33

Additional Information

Caltrans, in partnership with the San Joaquin Valley Air Pollution Control District, is the nominating agency, whereas BP Products North America Inc. is the implementing agency. An agreement between these project partners, including a financial arrangement between Caltrans/partnering public agency, the private partner, and the public agencies will be forthcoming depicting the responsibility of the parties.

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Congestion Reduction	TCEP	Change in Daily Vehicle Hours of Delay	Hours	0	0	0
	TCEP	Change in Daily Truck Hours of Delay	Hours	0	0	0
Throughput (Freight)	TCEP	Change in Truck Volume	# of Trucks	0	0	0
	TCEP	Change in Rail Volume	# of Trailers	0	0	0
			# of Containers	0	0	0
Velocity (Freight)	TCEP	Travel Time or Total Cargo Transport Time	Hours	0	0	0
Air Quality & GHG (only 'Change' required)	LPPC, SCCP, TCEP, LPPF	Particulate Matter	PM 2.5 Tons	-12.34	0	-12.34
			PM 10 Tons	-12.75	0	-12.75
	LPPC, SCCP, TCEP, LPPF	Carbon Dioxide (CO2)	Tons	-421,850.81	0	-421,850.81
	LPPC, SCCP, TCEP, LPPF	Volatile Organic Compounds (VOC)	Tons	-151	0	-151
	LPPC, SCCP, TCEP, LPPF	Sulphur Dioxides (SOx)	Tons	-5.5	0	-5.5
	LPPC, SCCP, TCEP, LPPF	Carbon Monoxide (CO)	Tons	-615.44	0	-615.44
	LPPC, SCCP, TCEP, LPPF	Nitrogen Oxides (NOx)	Tons	-1,707.88	0	-1,707.88
Safety	LPPC, SCCP, TCEP, LPPF	Number of Fatalities	Number	-0.54	0	-0.54
	LPPC, SCCP, TCEP, LPPF	Fatalities per 100 Million VMT	Number	-0.15892	0	-0.15892
	LPPC, SCCP, TCEP, LPPF	Number of Serious Injuries	Number	-12.17	0	-12.17
	LPPC, SCCP, TCEP, LPPF	Number of Serious Injuries per 100 Million VMT	Number	-3.6	0	-3.6
Economic Development	LPPC, SCCP, TCEP, LPPF	Jobs Created (Only 'Build' Required)	Number	24	0	24
Cost Effectiveness (only 'Change' required)	LPPC, SCCP, TCEP, LPPF	Cost Benefit Ratio	Ratio	2.802	0	2.802
Truck & Vehicle Volume (Freight)	TCEP	Existing Average Annual Vehicle Volume on Project Segment	Percent	0	0	0
	TCEP	Existing Average Annual Truck Percent on Project Segment	Percent	0	0	0
	TCEP	Estimated Year 20 Average Annual Vehicle Volume on Project Segment with Project	Number	0	0	0
	TCEP	Estimated Year 20 Average Annual Truck Percent on Project Segment with Project	Number	0	0	0

District	County	Route	EA	Project ID	PPNO
06	Kern County				6240

Project Title

EV Oasis South B

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	23-24	24-25	25-26	26-27	27-28	28-29+	Total	
E&P (PA&ED)									bp Products North America
PS&E									bp Products North America
R/W SUP (CT)									bp Products North America
CON SUP (CT)									bp Products North America
R/W									bp Products North America
CON									bp Products North America
TOTAL									
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)									
PS&E		875						875	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			19,193					19,193	
TOTAL		875	19,193					20,068	

Fund #1:	Local Funds - Private Funds (Committed)								Program Code
	Existing Funding (\$1,000s)								20.10.400.100
Component	Prior	23-24	24-25	25-26	26-27	27-28	28-29+	Total	Funding Agency
E&P (PA&ED)									bp Products North America
PS&E									Private match from TravelCenters of America
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E		875						875	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			5,145					5,145	
TOTAL		875	5,145					6,020	



Fund #2:	State SB1 TCEP - Trade Corridors Enhancement Account (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.210.310
Component	Prior	23-24	24-25	25-26	26-27	27-28	28-29+	Total	Funding Agency
E&P (PA&ED)									Caltrans HQ Caltrans State TCEP Funds
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			14,048					14,048	
TOTAL			14,048					14,048	

## **Project Report for Baseline Agreement Approval**

### **EV Oasis South**

I, *Sujay Sharma*, have been given full authority by *BP Products North America Inc.* to prepare this report. I certify that the information and data contained in this report are true to the best of my knowledge and belief and I understand that disciplinary action may be taken in the event that the following information are found to be falsified.

\_\_\_\_\_  
Sujay Sharma

\_\_\_\_\_  
Date

CEO, bp pulse Americas \_\_\_\_\_

BP Products North America Inc. \_\_\_\_\_

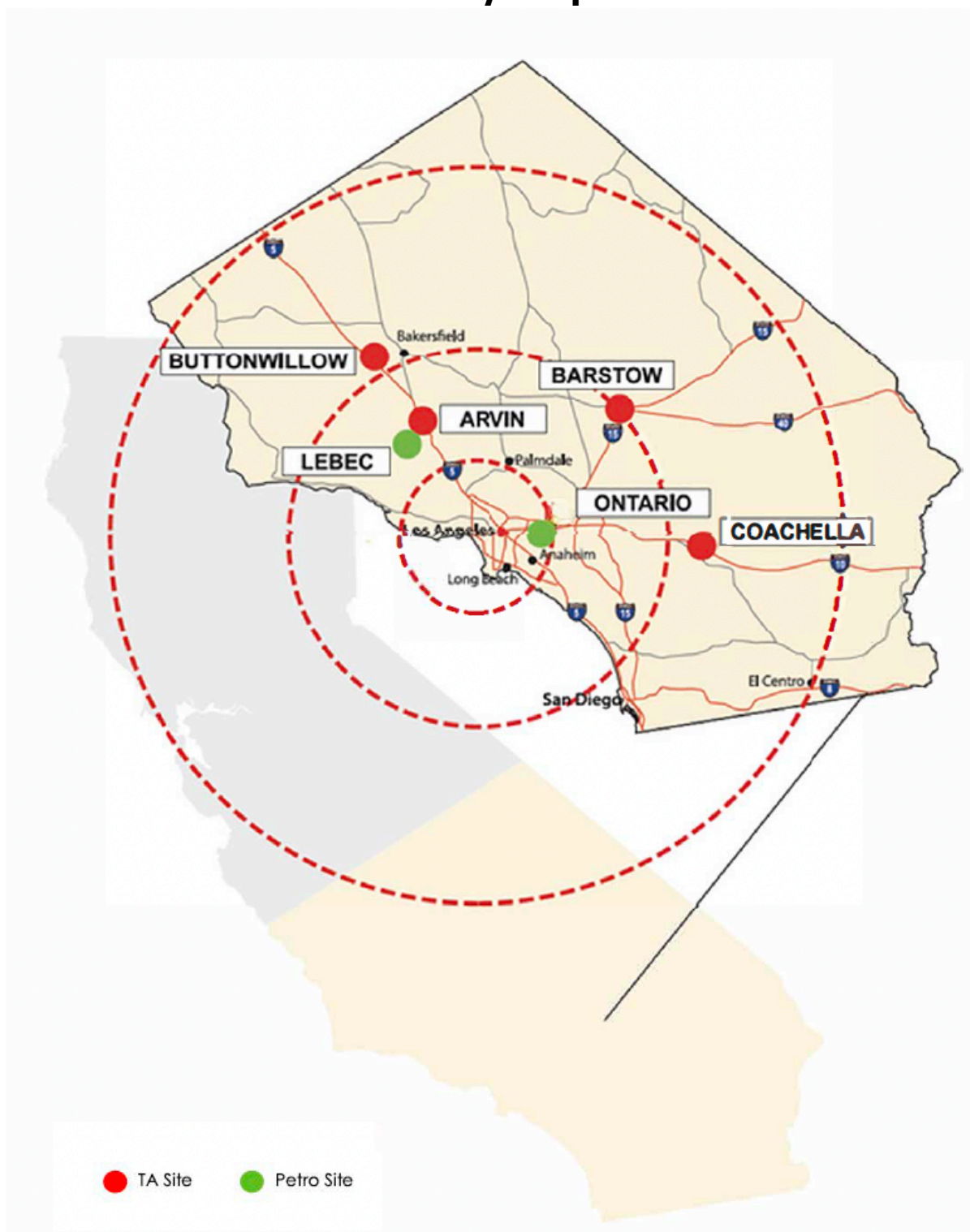
I have reviewed the information contained in this report and find the data and information to be complete, current, and accurate.

\_\_\_\_\_  
Debi Boffa

\_\_\_\_\_  
Date

CEO, TravelCenters of America \_\_\_\_\_

## Vicinity Map



This project report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

Ramkishore Rao

REGISTERED CIVIL ENGINEER

10/5/2022

DATE



06/30/2023

## Table of Contents

*As needed, include a table of contents with the topics from the body of the report.*

1. Introduction
2. Recommendation
3. Background
4. Purpose and Need
5. Alternatives
6. Considerations Requiring Discussion
7. Other Considerations as Appropriate
8. Funding, Programming, and Estimate
9. Delivery Schedule
10. Risks
11. External Agency Coordination
12. Project Personnel
13. Attachments

## 1. INTRODUCTION

### Project Description:

The proposed project will support the initial phases of deploying high-power DC fast charging infrastructure (EVSE) to enable zero-emission goods movement throughout California's critical goods movement corridors. This project proposes initial deployments owned and operated by BP Products North America Inc. ("bp pulse") across six (6) TravelCenters of America (TA) sites in Southern California. The project builds upon the recommendations contained within the West Coast Clean Transit Corridor Initiative (WCCTCI) Final Report published in June 2020 by HDR, CALSTART, S Curve Strategies, and Ross Strategic.

This project seeks to jumpstart the scale deployment of publicly accessible charging and alternative fueling infrastructure for medium- and heavy-duty transportation. The project will seek to identify and design early sites for cost-effective deployments, avoiding the need for substantial utility infrastructure upgrades. Six 50kW end zone overnight medium and heavy duty compatible overnight chargers will be installed at each station. These charger units will be complemented by six pull through 400kW DCFC charging units. Each project site will also include the installation of a 400kW solar canopy and 1MW/3.9MWh BESS and controller at each site. While managing costs, the project will deploy a viable network of fueling infrastructure to support early and rapid adoption of zero-emission vehicle and equipment technologies. The project aims to achieve substantial emissions reductions while advancing the goals of the California Sustainable Freight Action Plan, the California Freight Mobility Plan, and many other environmental, sustainability, public health, and climate change goals and policies established at the local, state, and federal levels.

<b>Project Limits</b>	<i>California's major goods movement corridors, including Interstate 5, Interstate 10, Interstate 15, State Hwy 99, and Interstate 40.</i>
<b>Number of Alternatives</b>	<i>Suggested minimum of 5 alternative sites in Northern California.</i>
<b>Current Capital Outlay Construction Cost Range</b>	<i>Proposal for construction and procurement of EVSE and supporting equipment. Construction and procurement across 6 sites will require an average amount of \$6.69 million per site, or \$40.136 million total.</i>

<b>Current Capital Outlay Right-of-Way Cost Range</b>	<i>Currently not foreseen as incurring substantial costs due to deployment at existing facilities.</i>
<b>Funding Source</b>	<i>Private Capital, Utility Programs, California Energy Commission, Local Air Quality Management Districts, and Federal Infrastructure, Energy, and Air Quality Discretionary Grant Programs, among others.</i>
<b>Type of Facility</b>	<i>High-power electric vehicle (EV) charging stations at privately-owned truck stops enabling zero-emission goods movement along the state's major goods movement corridors.</i>
<b>Number of Structures</b>	<i>The project team will install a minimum of six 400 kW DC Fast Chargers (DCFCs) and six 50kW overnight chargers compatible with medium-and heavy-duty (MHD) electric trucks 6 TA sites for a total of 72 chargers. Each site will also include a 400kW solar canopy and 1MW/3.9MWh BESS and controller at each site.</i>
<b>Anticipated Environmental Determination or Document</b>	<i>Categorically Exempt under Classes 1, 3, and/or 4.</i>
<b>Legal Description</b>	<i>IN THE STATE OF CALIFORNIA WITHIN 3 MILES OF MAJOR GOODS MOVEMENT AND ALTERNATIVE FUELS CORRIDORS AS IDENTIFIED WITHIN THE CALIFORNIA FREIGHT MOBILITY PLAN, THE CALIFORNIA SUSTAINABLE FREIGHT ACTION PLAN, AND OTHERS.</i>
<b>Project Development Category</b>	<i>Category 4B and/or Category 7</i>

## 2. RECOMMENDATION

As shown in a memo from Tanisha Taylor, with reference number 4.5, Action, published June 16, 2023, "Staff recommends the California Transportation Commission (Commission) adopt the 2022 Trade Corridor Enhancement

Program, as presented in Attachment B and consistent with Resolution G 23 - 46 (Attachment A).”

### **3. BACKGROUND**

On January 23, 2021—in one of his first acts as President—Joe Biden announced an ambitious goal to replace the US government fleet of 650,000 light-, medium-, and heavy-duty vehicles with electric vehicles (EVs) at a cost of \$20 billion. Soon after, President Biden released details of a historic \$174 billion electric vehicle proposal, which includes funds to build 500,000 EV charging stations by 2030, \$45 billion to electrify most of the nation’s school and transit buses, and \$10 billion in tax credits for deployments of zero-emission MHD trucks. Similarly, California will ban sales of new gas and diesel trucks by 2035. Achieving these ambitious state goals will require collaboration between many critical actors: federal, state, and local transportation agencies and air districts; public- and privately-owned utilities; and unions and representatives of disadvantaged and tribal communities. It will also take the courage of a private company like BP Products North America Inc. (BPPNA) that is willing to be the first to deploy zero-emission MHD technology at scale.

This endeavor is not unprecedented. The original West Coast Electric Highway—which began in 2016 as a multi-state collaboration between Washington, Oregon, and California—was fundamentally completed by 2020 and now extends light-duty electric charging as far north as Whistler, British Columbia and south to the border of Mexico. It encompasses more than 900 charging stations located every 25 to 50 miles along I-5, US 101, and Highway 99. That said, building out a similar network of electric charging infrastructure to support freight and goods movement will be more challenging, primarily because trucks require significantly more robust charging capabilities than cars and can require costly grid infrastructure improvements to support those capabilities. Schedules and duty cycles also dictate that MHD truck drivers cannot dwell for several hours in a parking lot waiting to fully charge their vehicles.

In June 2020, HDR and its collaborators completed the development of the West Coast Clean Transit Corridor Initiative (WCCTCI) Final Report. The WCCTCI evaluated future demand for MHD vehicles across California, Oregon, and Washington’s major freight corridors to assess the need for future EVSE to enable zero-emission interstate goods movement. The WCCTCI identified the need for charging stations to be deployed every 50-100 miles to unlock this future potential of zero-emission MHD vehicles. Importantly, HDR also identified baseline costs for establishing the initial networks of 350+ kW EVSE, recognizing that initial sites will need to be flexibly selected and prioritized based upon the



availability of sufficient utility service to mitigate delays and overall costs.

This project—EV Oasis South—represents that bold first step in deploying MHD electric vehicle infrastructure at scale along a 1,300-mile freight corridor connecting cities and ports along the West Coast. BPPNA has partnered with the Southern California Association of Governments (SCAG) and the San Joaquin Valley Air Pollution Control District (SJVAPCD), engaging the attention and resources of air districts that represent some of the worst air quality areas in the nation. This project also utilizes BPPNA’s significant resources as a large, global company and its demonstrated desire and ability to enable drivers of light- and MHD vehicles to access alternative energy. To date, TravelCenters of America, a subsidiary of BPPNA after an acquisition in 2023, has begun or completed the following projects related to that overarching goal:

- **Taking Charge: TravelCenters of America Ultra-Fast En-Route Charging:** Funded in part by a \$4,000,000 grant from the CEC, this project will install DC fast chargers; battery energy storage; ~200 kW PV solar; and microgrid controls at TA’s Ontario travel center.
- **Electric Truck Research and Utilization Center:** TA’s Ontario travel center will deploy an R&D Megawatt Charging System for MHD trucks and perform site upgrades.

#### 4. PURPOSE AND NEED

##### **Purpose:**

**BP Products North America Inc. (“bp pulse”), in collaboration with TA Operating LLC (d/b/a TravelCenters of America and Petro Stopping Centers, subsidiaries of BPPNA), and Build Momentum, Inc., and supported by the California Department of Transportation (Caltrans) to progress the recommendations of the West Coast Clean Transit Corridor Initiative, along with support from numerous air districts across California— aims to develop the implementation of Travel Centers of America’s (TA) “EV Oasis” project at six TA locations situated along the I-5, I-10, I-15, State Hwy-99, and I-40 corridors (the “TA Sites”). This initiative is a testament to BP Products North America Inc.’s commitment towards enhancing sustainable transportation infrastructure.**

The EV Oasis Project has the potential to create jobs, reduce greenhouse gas emissions from freight transportation, help eliminate diesel emissions from trucks, and improve grid resiliency along the west coast corridor. The project will include collaboration with trade experts in high voltage electricity, solar installation, EV charging unit installation, EV charging infrastructure

maintenance, and zero emission vehicle (ZEV) maintenance, creating a new wave of environmental jobs.

The project team will install six high-power DC Fast Chargers (DCFCs, 400 kW) medium- and heavy-duty (MHD) and six 50kW overnight chargers for electric truck charging stations at six TA sites. Each site will also include a 400 kW solar canopy, 1 MW/3.9MWh BESS, and at least one pull-through stall per CP. Energy storage at each site will be allotted to offer incremental truck parking spots on key thoroughfares where shortages are acute.

Made possible through collaboration among 3 electric utilities and two agencies representing more than two dozen municipal utilities, once complete, this EV Oasis Project will serve as the foundation of the West Coast Electric Truck Highway, a 1,300-mile zero tail pipe emissions transportation corridor envisioned by the West Coast Clean Transit Corridor Initiative.

The project is in alignment with the following climate plans, legislation, executive orders, and regulations:

- EO B-16-2012: Reduce transportation GHG emissions 80% vs. 1990 levels by 2050.
- EO N-79-20: 100% of MHD vehicles operating in California must be ZEVs by 2045.
- Clean Truck Rule: Specified percentage of new truck sales must be ZEVs by 2035.
- LCFS: Sets target to reduce carbon intensity of transportation fuels 20% by 2030.
- California HVIP: Provides vouchers toward purchase of zero-emissions trucks and buses.
- California Sustainable Freight Action Plan: Targets improving freight sustainability by 25%; deploying 100,000+ freight vehicles capable of zero-emission operation by 2030.
- California Public Utilities Commission: Works with utilities to provide rebates, rates, charging infrastructure, and vehicle-grid integration technologies.<sup>16</sup>
- California Air Resources Board Mobile Source Strategy: 15-year plan aimed at meeting air quality standards, reducing GHG emissions, reducing petroleum consumption, and lowering health risks from transportation emissions throughout California.

**Need:**

## A. Problem, Deficiencies, Justification

### PROBLEM

One of the most significant challenges the project seeks to address is a classic “chicken or egg” dilemma. Fleets are hesitant to purchase electric trucks because they are uncertain that they will be able to charge them. On the other hand, organizations interested in investing in charging infrastructure fear investments will fail because there are too few electric trucks on the road. By creating a network of DC fast chargers along I- 5, I-10, I-15, State Hwy 99, and I-40, the District and Project Team seek to allay fears among fleet managers related to charging availability, thereby encouraging wider adoption of electric trucks. Closely related, this project will help alleviate “range anxiety” among fleets. Simply put, range anxiety is the fear that a vehicle has insufficient range to reach its destination and could strand its occupants. The initial deployment across six sites will begin to narrow the gap between publicly accessible charging stations, diminishing range anxiety. Another transportation challenge addressed by the project is speed of recharge. Today’s Class 8 electric trucks have large batteries, with estimated ranges of anywhere from 200 to 350 miles and usable battery capacities of 300 kWh to 600 kWh. With much of today’s publicly available charging infrastructure, fully recharging such batteries can take many hours—long enough that many fleet operators will not consider electric trucks until this challenge is solved. On the project, the Project Team will install only high-capacity chargers that can provide more than 42 miles of range in 15 minutes conservatively, giving trucks the flexibility to opportunistically recharge on longer trips on the I-5 corridor and extend their daily range considerably in comparison to depot-based charging models that force trucks to return home to recharge, severely limiting daily range.

### DEFICIENCIES

There remain significant unknowns related to zero tailpipe emission technologies for MHD applications, preventing large scale investment in assets and infrastructure. This includes, among many other factors, uncertainty around utility pricing, equipment costs, future utilization rates, and technology standardization.

However, zero tailpipe emission electric vehicles cannot operate without adequate fueling infrastructure. Therefore, it will be necessary to utilize public-private partnership models and engage industries, communities, and public agencies across the local, state, and federal levels to de-risk and rapidly scale investment and deployment of these transportation technologies, ultimately delivering substantial public health and environmental benefits.

## JUSTIFICATION

The EV Oasis Project aspires to lay the groundwork for progressive development and anticipates providing a multitude of benefits. The project is designed to significantly reduce petroleum consumption—potentially by an estimated average of 1,883,263 million gallons of diesel per year, according to the Benefit-Cost Analysis (BCA) Model created for the project's TCEP funding proposal. Over the project's 20-year lifespan, this could amount to over 37.7 million gallons. In doing so, it could result in an average annual net greenhouse gas (GHG) emissions reduction, with potential savings estimated at \$3,960,000 per year, which could lead to more than \$79,000,000 in cumulative savings over the project's lifetime, as demonstrated in the BCA Model. These figures represent the project's potential outcomes.

The anticipated reduction in diesel consumption may also lead to a considerable decrease in criteria air pollutant tailpipe emissions. Safety benefits from the project could be significant as well, with total savings estimated at over \$56,350,000 based on the BCA Model. The preliminary BCA calculated a benefit-cost ratio of 2.802 and a net present value of \$71,966,470, indicating a positive forecast for its economic viability.

For fleets at the cusp of transitioning to electric vehicles, the initial costs of charging infrastructure can be a hurdle. The EV Oasis Project aims to establish a robust medium and heavy-duty (MHD) zero tailpipe emission transportation corridor. By providing proposed publicly accessible charging sites, the project could help mitigate these capital expenditures and potentially increase the adoption of electric trucks. Moreover, the expansion of a public charging network could encourage the standardization of electric charging infrastructure for MHD vehicles, supporting the broader shift to electric trucking. While these goals are ambitious and reflect our hopes for the project, actual results may vary as we move forward, but we aim to achieve the goals.

### B. Regional and System Planning

The EV Oasis Project seeks to deploy the first series of MHD charging facilities at six locations on the I-5, I-10, I-15, State Hwy-99, and I-40 corridors in Southern California (Phase 1) and six in Northern California (Phase 2). By installing electric truck high-power charging stations, EV Oasis sites will reduce range anxiety along critical goods movement corridors and enable geographically dispersed operations of zero-emission MHD vehicles and equipment, helping to stimulate greater adoption of medium and heavy-duty electric trucks. The twelve TA sites

will connect electric trucks with key transportation hubs throughout California, located in logistics hubs such as the Inland Empire and in proximity to intermodal facilities and major ports including the Port of Los Angeles, Port of Long Beach, Port of Hueneme.

### C. Traffic

A traffic engineering performance assessment has not yet been completed. The installation of EVSE and other alternative fueling infrastructure is not expected to have a major impact on traffic performance external to the inherent safety and efficiency gains enabled by advanced technology vehicles.

## 5. ALTERNATIVES

### 5A. Viable Alternatives

Five alternative sites for the MDHD public charging project in California are considered based on several critical factors that align with the project's objectives. These factors include geographical distribution, accessibility, existing infrastructure, community impact, and readiness for development. The alternative sites identified are: Site #163 TA Santa Nella, Site #170 TA Livingston, Site #57 TA Redding, Site #309 Petro Corning, and Site #346 TA Corning. Here's a breakdown of the justification for choosing each site:

#### Site #163 TA Santa Nella

**Geographical Importance:** Strategically located near the intersection of major highways, providing essential charging infrastructure for MDHD vehicles traveling between Northern and Southern California.

**Accessibility:** Offers easy access for vehicles, reducing detour time and contributing to efficient route planning for drivers.

**Community Impact:** Enhances local economies by attracting MDHD vehicles and associated businesses, potentially creating jobs and improving community services.

**Readiness:** Shovel-ready status ensures a faster deployment timeline, minimizing project initiation delays.

#### Site #170 TA Livingston

**Central Location:** Positioned centrally within California's agricultural heartland, this site supports MDHD vehicles involved in agricultural logistics, promoting sustainability in food distribution.

**Infrastructure:** Existing facilities can be leveraged to quickly install charging stations, lowering initial investment costs.

**Accessibility and Visibility:** High visibility and ease of access for MDHD vehicles ensure the site's utilization and encourage adoption of electric vehicles in the region.

**Community Benefit:** Supports local economic development and positions Livingston as a forward-thinking, green technology community.

#### Site #57 TA Redding

**Northern Gateway:** Acts as a northern gateway for vehicles entering California from the north, filling a crucial gap in the charging infrastructure network.

**Strategic Location for Long Hauls:** Ideal for long-haul MDHD vehicles needing to recharge before entering more densely populated areas of California.

**Community Engagement:** Offers opportunities for local community engagement and education on sustainable transportation.

**Project Feasibility:** The shovel-ready status indicates minimal barriers to initiating the project, ensuring timely completion.

#### Site #309 Petro Corning

**Interstate Proximity:** Located near a major interstate, this site caters to a significant volume of MDHD traffic, addressing a critical need for public charging infrastructure.

**Redundancy:** Adds redundancy to the network in Northern California, enhancing reliability for users.

**Economic Stimulus:** The development of this site as a charging station could stimulate local economic growth through increased demand for local services.

**Ease of Development:** Given its shovel-ready status, development can proceed without significant delays, aligning with project timelines.

#### Site #346 TA Corning

**Dual Highway Access:** Offers unique access to two major highways, increasing its value as a strategic charging point for MDHD vehicles traversing the region.

**Logistics Hub Potential:** Could become a logistics hub for electric MDHD vehicles, fostering an ecosystem of clean transportation.

**Community Impact:** Provides an opportunity to positively impact the Corning community through job creation and increased business activities.

Ready for Deployment: The site's readiness for immediate development is critical for meeting project deadlines and accelerating the transition to sustainable transportation options.

## **5B. Rejected Alternatives**

Not Applicable

## **6. CONSIDERATIONS REQUIRING DISCUSSION**

### **6A. Hazardous Waste**

No hazardous waste considerations requiring discussion.

### **6B. Value Analysis**

A benefit cost analysis has been conducted for this project. It yields an estimated benefit cost ratio of 2.802 and a net present value of \$71,966,470.

### **6C. Resource Conservation**

No resource conservation consideration requiring discussion.

### **6D. Right-of-Way Issues**

Utilities: Initial utility outreach has been conducted for all six sites and a summary of each is included below:

Site #026 (Petro Ontario) currently has a facility loading limit of 11.9600 MW and a cumulative demand of 8.7500 MW. There is space on site to add additional charging stations. Utility capacity analysis, performed using the Southern California Edison Distribution Resources Plan External Portal (DRPEP) Grid Needs Assessment tool, indicates sufficient capacity is available for the 6 planned charging stations (2.4 MW total capacity), with an additional approximate 1 MW available.

Site #041 (TA Coachella) has a load hosting capacity of 50 kW. There is space on site to add additional charging stations in the future. Utility capacity analysis, performed using the PG&E Integration Capacity Analysis tool, indicates utility capacity upgrades will be required for initial charging station deployment.

Site #160 (TA Buttonwillow) has a load hosting capacity of 290 kW. Utility capacity analysis, performed using the PG&E Integration Capacity Analysis tool, indicates utility capacity upgrades will be required for initial charging station deployment.

Site #227 (TA Barstow) currently has a facility loading limit of 11.9600 MW and a cumulative demand of 8.7500 MW. There is space on site to add additional charging stations. Utility capacity analysis, performed using the Southern California Edison Distribution Resources Plan External Portal (DRPEP) Grid Needs Assessment tool, indicates that insufficient capacity will be available beginning 2023 for the 6 planned charging stations (1.72 MW total capacity needed, with .57 MW available).

Site #239 (TA Wheeler Ridge) currently has a load hosting capacity of 960 kW. There is space on site to add additional EV chargers, but additional utility capacity is required for the full initial planned buildout and future deployments, as current capacity for load additions on the circuit feeding the site is less than 1 MW, with 2.4 MW needed for the 6 DC fast charging stations.

Site #327 (Petro Wheeler Ridge) had a load hosting capacity of 440 kW. Utility capacity analysis, performed using the PG&E Integration Capacity Analysis tool, indicates utility capacity upgrades will be required for full initial charging station deployment.

Railroad: N/A.

#### **6E. Environmental Compliance**

These stations are expected to be exempt from CEQA Categorically Exempt under Classes 1, 3, and/or 4 when installed at an existing facility. There are no adverse environmental impacts associated with their ongoing operation. The project will deploy new charging equipment and associated infrastructure, in some instances including solar PV and/or battery energy storage systems, at up to six sites located in California. All proposed equipment would be installed at existing facilities / existing paved truck stop areas. No greenfield infrastructure would be deployed. No environmental permitting requirements or issues have been identified, and US DOT funding would be the initial federal nexus for the project. On July 2, 2021, the team learned from Shawn Oliver (Shawn.Oliver@dot.gov), Environmental Specialist at the Federal Highway Division— California, that he believed a Categorical Exclusion would be an appropriate level of NEPA for the charging station facilities. The Project Team completed CEQA compliance on the EV Oasis sites in December 2023. The project would not require approval, actions, or permits by any other federal agencies. The project sites in California only required compliance with the California Environmental Quality Act (CEQA), but completion of this process would not be required as an element of the NEPA process and was completed along a separate



course of action, also in advance of execution of a contract with US DOT. Under CEQA, electric vehicle charging stations generally receive categorical exemptions under Guideline §15301 (Existing Facilities) when installed at an existing facility or parking lot and require only Building Permits. The Project Team anticipates receiving all permits necessary to proceed to construction on the timeline specified in the project schedule and necessary to meet the statutory obligation deadline. As of Dec 21, 2023, all 6 sites have completed and submitted environmental review.

#### **6F. Air Quality Conformity**

This project conforms with the California Air Resources Board Mobile Source Strategy: 15-year plan aimed at meeting air quality standards, reducing GHG emissions, reducing petroleum consumption, and lowering health risks from transportation emissions throughout California. The San Joaquin Valley Air Pollution Control District (SJVAPCD) is an active participant in the project, and has given its full support.

#### **6G. Title VI Considerations**

The project complies with Title VI Considerations summarized on the Caltrans website (<https://dot.ca.gov/programs/civil-rights/title-vi>). BP Pulse is fully committed to aligning with Title VI of the Civil Rights Act of 1964 and the additional stipulations as outlined by the California Department of Transportation (Caltrans). In our endeavors, especially in securing Federal financial assistance through the TCEP CTC program, we ensure that all individuals, irrespective of their race, color, or national origin, have equal access to the benefits and services provided by our projects. BP Pulse actively implements strategies to prevent discrimination in every aspect of our operations and program delivery. This includes fostering an inclusive environment that not only prohibits any form of discrimination but also emphasizes equitable distribution of resources and meaningful engagement in the planning and execution phases of our transportation projects. We recognize the importance of environmental justice as per Federal Executive Order 12898 and are dedicated to ensuring that our contributions to transportation planning and infrastructure development serve the diverse needs of all communities, especially those historically underserved or marginalized.

#### **6H. Noise Abatement Decision Report**

No noise abatement report conducted.

## **7. OTHER CONSIDERATIONS AS APPROPRIATE**

Public Hearing Process  
Route Matters  
Permits  
Cooperative Agreements  
Other Agreements  
Report on Feasibility of Providing Access to Navigable Rivers  
Public Boat Ramps  
Transportation Management Plan  
Stage Construction  
Accommodation of Oversize Loads  
Graffiti Control  
Other Appropriate Topics

## **8. FUNDING, PROGRAMMING AND ESTIMATE**

### Funding

It has been determined that this project is eligible for Federal-aid funding. The proposal has been estimated to cost roughly \$6.1 million per site for a fully integrated 400 kW Photo Voltaic system, 1 MWh grid battery, charging infrastructure, and interconnect to the grid. With the six existing sites, an investment total of \$40.1 million would likely be sufficient to accomplish the aforementioned goals in California.

### Programming

The project was programmed in June 2023. Since program adoption, the project team met its first deadline to submit all required CEQA documentation within 6 months. However, an acquisition of the original applicant, TravelCenters of America, by BPPNA, prompted the project team to pursue a scope change request before signing the Grant and Baseline Agreements in June 2024. One requested scope change will include splitting the project into 2 ePPRs:

- ePPR 1: EV Oasis South A
  - PPNO: 6199
  - Caltrans District 8: Southern CA Association of Governments
  - Sites: Petro Ontario, TA Coachella, TA Barstow
- ePPR 2: EV Oasis South B
  - PPNO: 6240

- Caltrans District 6: San Joaquin Valley Air Pollution Control District
- Sites: TA Wheeler Ridge, Petro Wheeler Ridge, TA Buttonwillow
- This Project Report applies to both ePPRs.

More information on the scope change request can be found in the Scope Change Package submitted with this Baseline Agreement Package.

Funding is broken down per ePPR below.

ePPR 1: EV Oasis South A

Fund Source	Fiscal Year Estimate								
State TCEP Funds	Prior	23/24	24/25	25/26	26/27	27/28	28/29	Future	Total
Component	In thousands of dollars (\$1,000)								
PA&ED Support									
PS&E Support									
Right-of-Way Support									
Construction Support									
Right-of-Way Construction			14,047						14,047
Total			14,047						14,047

Fund Source	Fiscal Year Estimate								
Local Private Funds	Prior	23/24	24/25	25/26	26/27	27/28	28/29	Future	Total
Component	In thousands of dollars (\$1,000)								
PA&ED Support									
PS&E Support		875							875
Right-of-Way Support									
Construction Support									
Right-of-Way Construction			5,146						5,146
Total		875	5,146						6,021

ePPR 2: EV Oasis South B

Fund Source	Fiscal Year Estimate								
State TCEP Funds	Prior	23/24	24/25	25/26	26/27	27/28	28/29	Future	Total
Component	In thousands of dollars (\$1,000)								
PA&ED Support									
PS&E Support									
Right-of-Way Support									
Construction Support									
Right-of-Way Construction			14,048						14,048
Total			14,048						14,048

Fund Source	Fiscal Year Estimate								
Local Private Funds	Prior	23/24	24/25	25/26	26/27	27/28	28/29	Future	Total
Component	In thousands of dollars (\$1,000)								
PA&ED Support									
PS&E Support		875							875
Right-of-Way Support									
Construction Support									
Right-of-Way Construction			5,145						5,145
Total		875	5,145						6,020

**9. DELIVERY SCHEDULE**

Milestone dates are broken down per ePPR below.

ePPR 1: EV Oasis South A

Project Milestones	Milestone Date (Month/Day/Year)
Project Study Report Approved	

Begin Environmental (PA&ED) Phase	01/01/2022
Circulate Draft Environmental Document – Document Type (ND/MND)/FONSI	08/01/2023
Draft Project Report	12/31/2023
End Environmental Phase (PA&ED Milestone)	12/31/2023
Begin Design (PS&E) Phase	04/05/2024
End Design Phase (Ready to List for Advertisement Milestone)	06/15/2024
Begin Right of Way Phase	07/01/2023
End Right of Way Phase (Right of Way Certification Milestone)	12/31/2023
Begin Construction Phase (Contract Award Milestone)	03/01/2025
End Construction Phase (Construction Contract Acceptance Milestone)	07/01/2026
Begin Closeout Phase	07/02/2026
End Closeout Phase (Closeout Report)	06/30/2027

## ePPR 2: EV Oasis South B

Project Milestones	Milestone Date (Month/Day/Year)
Project Study Report Approved	
Begin Environmental (PA&ED) Phase	01/01/2022
Circulate Draft Environmental Document – Document Type (ND/MND)/FONSI	08/01/2023
Draft Project Report	12/31/2023
End Environmental Phase (PA&ED Milestone)	12/31/2023
Begin Design (PS&E) Phase	04/05/2024
End Design Phase (Ready to List for Advertisement Milestone)	06/15/2024
Begin Right of Way Phase	07/01/2023
End Right of Way Phase (Right of Way Certification Milestone)	12/31/2023
Begin Construction Phase (Contract Award Milestone)	03/01/2025
End Construction Phase (Construction Contract Acceptance Milestone)	12/31/2026
Begin Closeout Phase	01/01/2027
End Closeout Phase (Closeout Report)	12/31/2027

## 10. RISKS

Risk	Mitigation Strategy
Permit Timing	To streamline the permitting process at the twelve sites located across California, Project Team will standardize the project designs to the greatest extent possible and include several modular design options that can be used to site designs for each specific site.
Supply Chain Delays	Orders of high-power MHD charging equipment can sometimes have lead times of as long as 18 months. To avoid such delays, Project Team is in negotiation with several potential charging stations suppliers to leverage its orders of light-duty charging equipment into reduced prices for its MHD chargers and expedited delivery.
Unavailability of Domestically Manufactured Equipment	Project Team will seek to ensure that all major equipment and components are “Buy America” compliant. If requisite equipment is not domestically available, Project Team will work with US DOT to secure a waiver as a last resort.
Utility Interconnection and Availability of Power	Project Team will conduct early outreach and coordination with utilities to select sites with adequate power capacity nearby to minimize project delays, cost overruns, and other challenges with bringing power to these forthcoming high-power charging stations. Sites will be prioritized and selected for

	construction based upon existing nearby power capacity.
--	---

## 11. EXTERNAL AGENCY COORDINATION

### Federal Highway Administration (FHWA)

Prior discussions with FHWA indicate that deploying EVSE and supporting infrastructure at existing TA sites would be exempt from NEPA.

The project team has met with Caltrans roughly every two weeks since it was programmed in June 2023 to review progress toward developing the required documents for the grant and baseline agreements, funding requests, and scope change process.

The project does not propose new or modified interstate access.

### The project requires the following coordination with external agencies:

- City of Barstow - Planning Commission
- City of Ontario - Planning Department
- City of Coachella - Development Services Department
- Kern County - California Planning Department
- Other
  - Los Angeles Department of Water & Power
  - Southern California Edison
  - Imperial Valley Irrigation District
  - Pacific Gas and Electric
  - SoCalGas

### US Army Corps of Engineers

Department of the Army Permit for:  
Clean Water Act Section 404

Rivers and Harbors Act of 1899 Section 9  
Rivers and Harbors Act of 1899 Section 10

General Permits (Regional Permit, Nationwide Permit or Programmatic Permit)  
Standard Permits (Individual Permit or Letter of Permission)  
Section 9 Permit

United States Coast Guard  
Rivers and Harbors Act of 1899 Section 9  
Bridge Permit

California Department of Fish and Wildlife  
California Fish and Game Code Section 1602  
Lake or Streambed Alteration Agreement

California Coastal Commission and/or Local Coastal Program  
California Public Resources Code Division 20 (California Coastal Act)  
Coastal Development Permit

California State Lands Commission  
California Public Resources Code Division 6  
Permit

Central Valley Flood Protection Board  
California Water Code Division 5, Part 4  
Encroachment Permit

Regional Water Quality Control Board  
Clean Water Act Section 401  
Water Quality Certification

San Francisco Bay Conservation and Development Commission  
California Government Code Title 7.2  
California Public Resources Code Division 19  
Major Permit, Administrative Permit, or Regionwide Permit

## **12. PROJECT PERSONNEL**

Debi Boffa, CEO, TravelCenters of America, LLC, [debi.boffa@se1.bp.com](mailto:debi.boffa@se1.bp.com)  
Sujay Sharma, CEO, bp pulse Americas, [sujay.sharma@uk.bp.com](mailto:sujay.sharma@uk.bp.com)



Zachary Conrad, Business Development and Finance Leader, bp pulse,  
[Zachary.conrad@bp.com](mailto:Zachary.conrad@bp.com)

Paul Laurent, Director, eTA, TravelCenters of America, [plaurent@ta-petro.com](mailto:plaurent@ta-petro.com)

Tiffany Hammond, Incentive and Grant Strategist, bp pulse,  
[Tiffany.Hammond@bp.com](mailto:Tiffany.Hammond@bp.com)

Sean Westropp, Commercial Development, bp pulse,  
[Sean.Westropp@bp.com](mailto:Sean.Westropp@bp.com)

### **13. ATTACHMENTS (Number of Pages)**

- A. Project Programming Request PPRs (14)
  - a. ePPR 1: EV Oasis South A (8)
  - b. ePPR 2: EV Oasis South B (6)
- B. Project Location Map (1)
- C. Approved Environmental Document (18)

## Attachment 2. Performance Metrics Form

### Trade Corridor Enhancement Program

<b>Existing Average Annual Vehicle Volume on Project Segment</b>		0				
<b>Existing Average Annual Truck Percent on Project Segment</b>		0				
<b>Estimated Year 20 Average Annual Vehicle Volume on Project Segment with Project</b>		0				
<b>Estimated Year 20 Average Annual Truck Percent on Project Segment with Project</b>		0				
<b>Measure</b>	<b>Metric</b>	<b>Project Type</b>	<b>Build</b>	<b>Future No Build</b>	<b>Change</b>	<b>Increase/ Decrease</b>
<b>Congestion Reduction (Freight)</b>	Change in Daily Vehicle Hours of Delay	All	0	0	0%	0
	Change in Daily Truck Hours of Delay	All (except rail)	0	0	0%	0
	(Optional) Person Hours of Travel Time Saved	All				
	(Optional) Daily Truck Trips Due to Mode Shift	Rail, Sea Port				
	(Optional) Daily Truck Miles Travelled Due to Mode Shift	Rail, Sea Port				
	(Optional) Other Information	All				
<b>Throughput (Freight)</b>	Change in Truck Volume	Highway, road, and port projects only	0	0	0%	0

	Change in Rail Volume	Rail	0	0	0%	0
	(Optional) Change in Cargo Volume	Sea port, airport				
	(Optional) Other Information	All				
<b>System Reliability (Freight)</b>	Truck Travel Time Reliability Index ("No Build" Only) (Optional Metric)	National and State Highway System Only	0	0	0%	0
	(Optional) Other Information	All				
<b>Velocity (Freight)</b>	Travel time or total cargo transport time	All	0%	0%	0%	0
	(Optional) Change in Average Peak Period Weekday Speed for Road Facility	Road				
	(Optional) Average Peak Period Weekday Speed for Rail Facility	Rail				
	(Optional) Other Information	All				
<b>Air Quality</b> (short tons)	Particulate Matter (PM 10)	All	-12.75	0	-12.75	Decrease
	Particulate Matter (PM 2.5)		-12.34	0	-12.34	Decrease
	Carbon Oxide (CO2)		-421,850.81	0	-421,850.81	Decrease
	Volatile Organic Compounds (VOC)		-151	0	-151	Decrease
	Sulphur Oxides (SOx)		-5.5	0	-5.5	Decrease
	Carbon Monoxide (CO)		-615.44	0	-615.44	Decrease
	Nitrogen Oxides (NOx)		-1,707.88	0	-1,707.88	Decrease
<b>Safety</b>	Number of Fatalities	Road and	-0.54	0	-0.54	Decrease

	Rate of Fatalities per 100 Million VMT	Land Port	-0.15892	0	-0.15892	Decrease
	Number of Serious Injuries		-12.17	0	-12.17	Decrease
	Number of Serious Injuries per 100 Million VMT		-3.6	0	-3.6	Decrease
	(Optional) Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries					
	(Optional) Other Information	All				
<b>Cost Effectiveness</b>	Cost Benefit Ratio	All	2.802	0	2.802	Increase
	(Optional) Other Information	All				
<b>Economic Development</b>	Jobs Created	All	24	0	24	Increase
	(Optional) Other Information	All				