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DRAFT SUPPLEMENTAL Environmental Impact Report No. 534 San Gorgonio Crossing Riverside County, California

State Clearinghouse Number: 2014011009

Prepared for:



County of Riverside

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SECTION 1: INTRODUCTION

1.1 - Overview Summary

The County of Riverside (Lead Agency) has prepared this Draft Supplemental Environmental Impact Report (Draft SEIR) to update the California Environmental Quality Act (CEQA) Guidelines Appendix F transportation energy use analysis and the air quality analysis related to the use of solar panels contained in the San Gorgonio Crossing Final Environmental Impact Report (FEIR).

On November 29, 2016, the Lead Agency circulated a Draft EIR evaluating the San Gorgonio Crossing Project (project) for public review. Various comments were submitted during the public review period. After review of the comments, the County elected to revise and recirculate the Draft EIR in its entirety. The Recirculated Draft EIR (RDEIR) was circulated for public comment from May 26, 2017, to July 10, 2017. Responses to comments were prepared and a Final EIR was presented to the Riverside Board of Supervisors, which certified the document on October 24, 2017.

Subsequently, two entities filed legal actions challenging the EIR, which were consolidated and heard by the Riverside Superior Court. On February 7, 2019, in the case entitled *Cherry Valley Pass Acres and Neighbors and Environmental Planning Group v. the County of Riverside*, the Court ordered the Respondent County of Riverside ("County") as follows:

- 1. [County shall address in its FEIR] Southern California Air Quality Management District's recommendation to maximize the use of solar panels and provide an explanation as to why the mitigation measure was not adopted. [see Administrative Record, page 349].
- [County shall include in the FEIR] a further analysis of the Project's projected transportation energy use requirements and, in particular, its overall use of efficient transportation alternatives. [see Administrative Record, pages 3028– 3030 [i.e., FEIR Section 5, Energy Conservation, and Appendix F Considerations: Energy Use from Vehicles].

The Court further ordered that (1) the remainder of the Final EIR certified on October 24, 2017, is in full compliance with CEQA and remains certified, and (2) the project approvals are valid and shall remain in place. Therefore, this Draft SEIR has been prepared to analyze only (1) the South Coast Air Quality Management District (SCAQMD) recommendation to maximize the use of solar panels and provide an explanation as to why the mitigation measure was not adopted, and (2) to provide further analysis of the project's projected transportation energy use requirements and, in particular, its overall use of efficient transportation alternatives to ensure that the projects' energy use is not inefficient, wasteful, or unnecessary in accordance with Appendix F. There are no other changes to the project or environmental circumstances that require additional environmental review under the CEQA Public Resources Code Section 21000, et seq., State CEQA Guidelines (California Code of Regulations [CCR] Title 14 § 15000, et seq.), or the County's rules and regulations.

This Draft SEIR was prepared in accordance with CEQA to supplement the analysis of potential environmental impacts associated with the implementation of the San Gorgonio Crossing Project (State Clearinghouse No. 2014011009), per the Trial Court's order. The document was prepared in conformance with all CEQA and County requirements.

1.1.1 - Project Description

This section summarizes the project that the County Board of Supervisors previously approved on October 24, 2017. There are no substantive changes to the approved project, and this Draft SEIR analyzes only the two limited issues identified by the Court, as discussed above.

The project site totals approximately 229 acres, of which approximately 16 acres are located within the City of Calimesa and would be used for project infrastructure purposes. Approximately 140.23 acres would be included within the developed portion of the project, and the remaining 84.8 acres would remain as natural open space (approximately 36 percent of the project site). The project consists of two high-cube warehouse buildings that will be designed to be eligible for Leadership in Energy and Environmental Design (LEED) Certification. Building 1 will comprise approximately 811,000 square feet, and Building 2 approximately 1,012,760 square feet for a total of approximately 1,823,760 square feet of gross floor area. The two project buildings would include approximately 30,000 square feet of office space.

Both buildings will be designed to accommodate cross-dock usage, with 136 dock doors for Building 1 and 170 dock doors for Building 2. A public street—located between Building 1 and Building 2—would provide access to existing residences that are generally located to the north of the project site, which currently utilize access through the project site via a dirt road. The street proposed to replace the existing dirt road would be approximately 1,600 feet in length, designed to Riverside County standards, and would provide residents access through the project site. Additional development on the project site would include standard and trailer parking stalls, streets, and landscaping.

A water quality basin would be constructed to the west of Building 1. A rectangular concrete channel would be located north and south of Buildings 1 and 2. Additionally, a grouted riprap berm and a water quality infiltration trench would be located north of Building 2. Riprap berms would be located east of Building 2, and a water quality basin is planned west of Building 2. Further, a publicly maintained trapezoidal concrete channel would be located between the building sites and Cherry Valley Boulevard. As discussed, the project would utilize approximately 16 acres within the City of Calimesa for off-site drainage and flooding improvements. Improvements within the City of Calimesa are composed of drainage channels and appurtenances including a concrete trap channel, a concrete box culvert, two concrete outlet structures, and riprap rock energy dissipaters. The Applicant has also agreed to construct a rock-lined berm to protect the adjacent property owners.

Three access points would be provided off Cherry Valley Boulevard.

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¹ Riprap is a foundation or sustaining wall of stones or chunks of concrete, which can be used to line channels.

1.1.2 - Organization of the Draft Supplemental EIR

This Draft SEIR document is organized into the following main sections:

- **Section 1: Introduction.** This section provides an introduction and overview describing the purpose of this Draft SEIR, its scope and components, and its review and certification process.
- Section 2: Other CEQA Considerations. This section provides an analysis regarding the SCAQMD's comment suggesting that the project maximize the use of solar panels and provide an explanation about whether the mitigation measure was adopted. It also provides further analysis of the project's projected transportation energy use requirements and, in particular, its overall use of efficient transportation alternatives.
- **Section 3: Persons and Organizations Consulted.** This section contains a list of persons and organizations that were consulted during the preparation of this Draft SEIR.
- **Section 4: List of Preparers.** This section contains a list of persons who prepared the Draft SEIR.
- **Section 5: References.** This section contains a full list of references that were used in the preparation of this Draft SEIR.

1.2 - Purpose of this Draft Supplemental EIR

When an FEIR has been certified for a project, CEQA defines standards and procedures for additional environmental review in Sections 15162–15164 of the State CEQA Guidelines.

Typically, additional environmental analysis is required when it is determined that proposed changes to a project, or changes in the circumstances under which the project will be undertaken, would result in new significant impacts not identified in the FEIR, or cause a substantial increase in the severity of significant impacts identified in the FEIR. An SEIR is also appropriate where, as here, a court rules that portions of the original FEIR were inadequate and additional environmental analysis should be performed.

State CEQA Guidelines Section 15163 provides the following relative to preparation and circulation of SEIRs:

- (b) The supplement to the EIR need only contain the information necessary to make the previous EIR adequate for the project as revised.
- (c) A supplement to an EIR shall be given the same kind of notice and public review as is given to a Draft EIR under Section 15087.
- (d) A supplement to an EIR may be circulated by itself without recirculating the previous Draft of an FEIR.
- (e) When the agency decides whether to approve the project, the decision-making body shall consider the previous EIR as revised by the SEIR. A finding under Section 15091 shall be made for each significant effect shown in the previous EIR as revised.

Therefore, in accordance with State CEQA Guidelines Section 15163, this Draft SEIR revises the original FEIR to address the SCAQMD's comment suggesting that the project maximize the use of solar panels and provide an explanation about whether the mitigation measure was adopted, and provides further analysis of the project's projected transportation energy use requirements and, in particular, its overall use of efficient transportation alternatives, only. This Draft SEIR will be recirculated pursuant to State CEQA Guidelines Section 15087, and together with the FEIR, will be presented to the Riverside County Board of Directors; however, only this Draft SEIR will need to be certified as the certification for the remainder of the FEIR is still valid per the Court's direction. There are no other changes to the project or to the environmental circumstances that require additional environmental review under CEQA.

Furthermore, this supplement to the FEIR contains only the information necessary to make the previous FEIR adequate for the project as revised. Therefore, only the two issue areas outlined above are being reviewed within this Draft SEIR, and comments should be limited to only these two issue areas. No comments will be received on the certified FEIR, or any previously certified drafts for the project and no response to comments on comments raised that fall outside of the scope of the Draft SEIR will be provided.

1.3 - Lead Agency, Developer, and Consultant

The County of Riverside is the Lead Agency in the preparation of the Draft SEIR. The Applicant/Owner is TSG Cherry Valley, LLC. The Shopoff Group, L.P. is the developer of the project. FirstCarbon Solutions (FCS) is the environmental consultant for the project.

1.4 - Review of the Draft SEIR

Upon completion of the Draft SEIR, a Notice of Completion (NOC) will be filed with the State Office of Planning and Research to begin the public review period (Public Resources Code [PRC] § 21161). Concurrent with the NOC, this Draft SEIR will be distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft SEIR, in accordance with Public Resources Code 21092(b)(3). During the 45-day public review period, the Draft SEIR, including the technical appendices, will be available for review at the Riverside County Planning Department, located at 4080 Lemon Street, Riverside. CA. Agencies, organizations, and interested parties not previously contacted, or who did not respond to the NOP, currently have the opportunity to comment on the Draft SEIR during the 45-day public review period.

Written comments on this Draft SEIR should be addressed to:

Riverside County Planning Department 4080 Lemon Street, 12th Floor Riverside, CA 92501

Attn: Charissa Leach, Assistant Director of Transportation and Land Management Agency, Community Development

Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review in the Final Draft SEIR at least 10 days prior to the Riverside County Board of Supervisors' action on the project and the Final Draft SEIR. Comments received and the responses to comments will be included as part of the record for consideration by the decision-makers for the project.

SECTION 2: OTHER CEQA CONSIDERATIONS

2.1 - Introduction

This section addresses other considerations of the California Environmental Quality Act (CEQA). More specifically and consistent with State CEQA Guidelines, Appendix F, this section includes an analysis of the project's transportation energy use requirements and its overall use of efficient transportation alternatives. This section also includes a discussion responding to the South Coast Air Quality Management District's (SCAQMD's) comment on the Recirculated Draft Environmental Impact Report (RDEIR) regarding maximizing use of solar energy including solar panels to generate solar energy for the facility and reduce the project's operational air pollutant emissions.

2.2 - Energy Conservation—Mobile Sources

Section 5.3, Significant Irreversible Changes, and Section 5.5, Energy Conservation and Appendix F Considerations, of the RDEIR included a discussion of the proposed project's consumption of resources and analyzed whether the project would result in the wasteful, inefficient, and unnecessary consumption of energy. This analysis is supplemental to the discussion provided in the RDEIR to further address transportation-related energy efficiency.

2.2.1 - State CEQA Guidelines Appendix F

Public Resources Code Section 21100(b)(3) and State CEQA Guidelines Section 15126.4 require an Environmental Impact Report (EIR) to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted Assembly Bill (AB) 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs; license thermal power plants of 50 megawatts or larger; develop energy technologies and renewable energy resources; plan for and direct State responses to energy emergencies; and perhaps most importantly, promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F to the State CEQA Guidelines. Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy.

Appendix F states:

Potentially significant energy implications of a project shall be considered in an EIR to the extent relevant and applicable to the project. The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

- decreasing overall per capita energy consumption,
- decreasing reliance on fossil fuels such as coal, natural gas and oil, and
- increasing reliance on renewable energy sources.

To assure that energy implications are considered in project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (Public Resources Code [PRC] § 21100(b)(3); State CEQA Guidelines § 15126.2(b)). Neither the State CEQA Guidelines nor the Public Resources Code offers a numerical threshold of significance that might be used to evaluate the potential significance of energy consumption of a project. Rather, the emphasis of the analysis is on the reduction of "the wasteful, inefficient, and unnecessary consumption of energy."

2.2.2 - Thresholds for Determination of Significance

The following thresholds of significance are based on State CEQA Guidelines Appendix G, as further detailed in State CEQA Guidelines Appendix F. The project's transportation energy use would be considered a significant impact if it would do any of the following:

- 1. Result in a potentially significant environmental impact due to the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation; or
- 2. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

For the purpose of this analysis, transportation-related energy usage would be considered "wasteful, inefficient, and unnecessary" if the project were to violate federal, State, and/or local energy standards or plans, inhibit pedestrian or bicycle mobility, inhibit feasible opportunities to use alternative energy sources, or otherwise inhibit the conservation of energy. Energy efficiency simply means using less energy to perform the same tasks. Since compliance with these standards and measures would improve fuel consumption related to construction, on-road goods movement, and employee commutes, conflicting with those same standards and measures would result in the project consuming additional fuel related to transportation. The following analysis evaluates the factors that would affect transportation-related energy associated with the project.

2.2.3 - Short-Term Construction Energy

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. The project is anticipated to be completed in approximately 18 months. Consistent with the estimates in the RDEIR, Table 2-1 provides an estimate of the project's construction fuel consumption.

Table 2-1: Construction Fuel Consumption

Phase	Fuel Consumption (gallons)
Site Preparation	330,630
Mass Grading	520,239
Building Construction	447,382
Tenant Improvements (Architectural Coatings)	110,428
Paving	31,796
Total	1,330,046
Source: FirstCarbon Solutions (FCS) 2015.	

As shown in Table 2-1, construction activities associated with the proposed project would be estimated to consume approximately 1.3 million gallons of diesel fuel. The project includes standard remedial grading and the installation of standard utilities, and does not include the installation of unique infrastructure. Therefore, there are no unusual project characteristics that would necessitate the use of specialty or other construction equipment that would be more energy intensive than is used for comparable activities, or would not otherwise conform to current emissions standards (and related fuel efficiencies).

Federal Regulations

The United States Environmental Protection Agency (EPA) regulates non-road diesel engines and has set emission standards for the engines used in most construction equipment. The EPA has also adopted non-road diesel fuel requirements to decrease the allowable levels of sulfur, which can damage advanced emission control technologies.

In 1994, the EPA adopted the first set of emissions standards (Tier 1) for all new non-road diesel engines greater than 37 kilowatts (50 horsepower). The EPA has since adopted more stringent Tier 2, 3, and 4 emission standards for oxides of nitrogen (NO_X), hydrocarbons, and particulate matter from new non-road diesel engines. The most recent Tier 4 standards, which took effect in 2008 and have been fully phased since 2014, require engine manufacturers to produce engines with advanced emission control technologies that will cut emissions from non-road diesel engines by more than 90 percent (California Air Resources Board [ARB] 2008). These emission standards are intended to promote advanced clean technologies for non-road diesel engines that improve fuel combustion.

State Regulations

The equipment used for project construction is required to meet or exceed CARB regulations and the following California regulatory emissions standards.

California Code of Regulations, Title 13: Division 3, Chapter 10, Article 1, Section 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. This measure seeks to reduce public exposure to diesel particulate matter and other air contaminants by establishing idling restrictions, emission standards, and other requirements for heavy-duty diesel engines and alternative idle reduction technologies to limit the idling of diesel-fueled commercial motor vehicles. Any person that owns, operates, or causes to operate any diesel-fueled commercial motor vehicle must not allow a vehicle to idle for more than 5 consecutive minutes at any location, or operate a diesel-fueled auxiliary power system for greater than 5 minutes at any location when within 100 feet of a restricted area. Limitations on idling of vehicles would result in fuel savings during project operations.

California Code of Regulations, Title 13: Division 3, Chapter 9, Article 4.8, Section 2449: General Requirements for In-Use Off-Road Diesel-Fueled Fleets. This measure regulates NO_x, diesel particulate matter, and other criteria pollutant emissions from in-use off-road diesel-fueled vehicles. This measure also requires each fleet to meet fleet average requirements, or demonstrate that it has met "best available control technology" requirements. Additionally, this measure requires medium and large fleets to have a written idling policy that is made available to operators of the vehicles informing them that idling is limited to 5 consecutive minutes or less, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment.

Project Mitigation Measures

As discussed in Section 3.3, Air Quality, of the RDEIR, project construction equipment used during mass grading and building construction activities would also be required to comply with Mitigation Measure (MM) AQ-1a, which requires all off-road diesel-powered construction equipment greater than 50 horsepower to meet or exceed Tier 3 engine emissions standards. This will ensure that onsite construction equipment will utilize Tier 3 engines or higher. The emissions standards limit the use of older construction equipment and require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. The Tier 3 engine standard applies to engines between 50 and 750 horsepower manufactured from 2006 to 2008. These emission standards are intended to promote advanced clean technologies for non-road diesel engines that improve fuel combustion.

MM AQ-1e requires that construction equipment shall be properly maintained according to manufacturer specifications. Maintenance plays a role in achieving optimal fuel efficiency, such as properly greasing equipment to result in more precise movements, adjusting belts to proper tension to prevent the machine from working harder to perform a task, and keeping tires properly inflated to reduce slippage.

MM AQ-1e also requires that on-site electrical hook ups to a power grid shall be provided for electric construction tools including saws, drills, and compressors, where feasible, to reduce the need for diesel-powered electric generators. The use of electricity would provide an efficient source of energy, as Southern California Edison will have to comply with Statewide Renewable Portfolio Standards that require 33 percent of electricity retail sales be served by renewable energy sources by 2020 and 50 percent by 2030.

Limitations on idling of vehicles and equipment, requirements that equipment be properly maintained, and requirements to use electrical hook ups would result in fuel savings. Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

Therefore, construction fuel consumption associated with the proposed project would not be inefficient, wasteful, or unnecessary and would not otherwise conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

2.2.4 - Long-Term Operations Energy

Transportation Energy Demand

The project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. As discussed in the RDEIR, Table 2-2 provides an estimate of the daily fuel consumed by vehicles traveling to and from the project, without consideration of additional mitigation. The fuel consumption estimates are based on national and regional averages of fuel economy. These estimates were derived using the same assumptions used in the operational air quality analysis in Section 3.3, Air Quality, of the RDEIR. As shown in Table 2-2, the project's total daily vehicular fuel consumption, without consideration of additional mitigation, is estimated to be 6,569 gallons of both gasoline and diesel.

Table 2-2: Daily Vehicle Fuel Consumption

Vehicle Type	Percent of Vehicle Trips	Daily Vehicle Miles Traveled	Average Fuel Economy (miles per gallon)	Total Daily Fuel Consumption (gallons)
Passenger Vehicles	35	11,022	33.5	329
Light trucks	27	8,502	25.7	331
Heavy trucks	38	46,680	7.9	5,909
Total	100	66,204	_	6,569

Notes:

Daily trips and vehicle miles traveled provided by California Emissions Estimator Model (CalEEMod) modeling output. Average fuel economy provided by the United States Department of Transportation, Bureau of Transportation Statistics. Source: FCS 2015.

As described below, the project's energy efficiency/energy conservation attributes would be complemented by increasingly stringent federal and state regulatory actions addressing vehicle fuel economies and vehicle emissions standards, as well as implementation of project design features and mitigation.

Federal Regulations

As described below, the project will comply with all federal fuel-related regulations, resulting in an efficient use of all types of energy and reduction of reliance on non-renewable sources of energy within the project area over the implementation period of the project.

Vehicle fuel efficiency is regulated at the federal level. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Passenger cars, light-duty trucks, and medium-duty passenger vehicles. The fuel economy standard for new passenger cars has been 27.5 miles per gallon since 1990; however, in 2011 this standard was increased to 30.2 miles per gallon (Federal Register 2009). The fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 24.1 miles per gallon since 2011 (Federal Register 2009). On April 1, 2010, the EPA and the United States Department of Transportation National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce greenhouse gas (GHG) emissions and improve fuel economy for new cars and trucks sold in the United States. The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The program requires these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide (CO₂) per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO₂ level solely through fuel economy improvements. Together, these standards would cut CO₂ emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles (model years 2012–2016)

sold under the program (NHTSA 2009). The EPA and the NHTSA issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012. The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and medium duty passenger vehicles. The final standards will result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 miles per gallon if achieved exclusively through fuel economy improvements (EPA 2012).

Vehicles used for employee commutes for the project will primarily consist of passenger cars and light-duty trucks. These cars and trucks will increasingly include newer model year engines that will further reduce fuel consumption, consistent with the national fuel economy standards.

Heavy-duty trucks and buses. The EPA and NHTSA issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses, effective November 14, 2011. Those standards addressed medium and heavy-duty trucks manufactured in model years 2014 through 2018. For heavy-duty trucks, such as combination tractors, the agencies proposed engine and vehicle standards that began in the 2014 model year and would achieve up to a 20 percent reduction in CO_2 emissions and fuel consumption by the 2018 model year. The EPA estimated that the combined standards would save approximately 530 million barrels of oil over the life of vehicles built for the 2014 to 2018 model years (EPA 2011).

In August 2016, the EPA and NHTSA jointly finalized Phase 2 standards for medium- and heavy-duty vehicles for model years 2018 through 2027 that will improve fuel efficiency and reduce CO₂ emissions. The Phase 2 program promotes a new generation of cleaner, more fuel-efficient trucks by encouraging the development and deployment of new and advanced cost-effective technologies. The final Phase 2 standards are expected to reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program (EPA 2018).

As shown in Table 2-2, heavy-duty trucks generate the majority of the vehicle miles traveled and consume the most fuel during project operations. The project's vehicle fleet will increasingly include newer model year engines that will further reduce fuel consumption, consistent with the national standards for fuel economy.

Renewable Fuels. Federal regulations also include programs to increase the use of renewable fuels. Renewable fuels are fuels produced from renewable resources. Examples include: biofuels (e.g., vegetable oil used as fuel, ethanol, and biodiesel) and hydrogen fuel and compressed natural gas (when produced with renewable processes). Signed on December 19, 2007, the Energy Independence and Security Act of 2007 reinforces the energy reduction goals for federal agencies put forth in Executive Order 13423 and introduces more aggressive requirements. The three key provisions enacted are the Corporate Average Fuel Economy Standards, the Renewable Fuel Standard, and the appliance/lighting efficiency standards. The Energy Independence and Security Act of 2007 expanded the Renewable Fuel Standard to include diesel in addition to gasoline and increased the volume of renewable fuel required to be blended into transportation fuel from nine billion gallons in 2008 to 36 billion gallons by 2022 (EPA 2017). This expanded Renewable Fuel Standard program lays the foundation for achieving substantial reductions of GHG emissions from

the use of renewable fuels and reductions of the use of imported petroleum, and it encourages the development and expansion of the nation's renewable-fuels sector.

The project's vehicle fleet will comply with the national standards for fuel composition and efficiency, including the Renewable Fuel Standard, resulting in the increased reduction of energy consumption by on-road vehicles during project operations.

In summary, the project's compliance with all federal regulations will result in more efficient use of all types of energy, and the reduction of reliance on non-renewable sources of energy within the project area over the implementation period of the project, consistent with the stated goals of Appendix F.

State Regulations

As described below, the project will comply with all State fuel-related regulations, resulting in an efficient use of all types of energy over the implementation period of the project. In addition to California Code of Regulations, Title 13: Division 3, Chapter 10, Article 1, Section 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, described above, the project will also comply with the following:

California AB 1493: Pavley Regulations and Fuel Efficiency Standards. California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce GHG emissions from passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011. The standards were phased in during the 2009 through 2016 model years.

The second phase of the implementation for the Pavley Bill was incorporated into Amendments to the Low-Emission Vehicle (LEV) Program referred to as LEV III or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation will reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025 (ARB 2011). The new rules will reduce pollutants from gasoline and diesel-powered cars and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles, and hydrogen fuel cell cars. The regulations will also ensure that adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

Vehicles used for employee commutes for the project will primarily consist of passenger cars and light-duty trucks. These cars and trucks will increasingly include newer model year engines that will further reduce fuel consumption, consistent with the State standards.

In summary, the project's compliance with all State regulations will result in more efficient use of all types of energy, consistent with the stated goals of Appendix F.

Project Location and Mitigation Measures

As described below, project location and mitigation will result in an efficient use of all types of energy over the implementation period of the project.

Project Location

Transportation energy consumption can be reduced by reducing vehicle miles traveled by the fleet. Optimizing the location of the project proximate to regional and local roadway systems will reduce vehicle miles within the region and associated regional vehicle energy demands. In California, Interstate 10 (I-10) crosses 244 miles across three counties. I-10 serves as a primary connection for commuter traffic and goods movement from seaports to the rest of the country. The California Freight Mobility Plan (CFMP) identified freight routes and transportation facilities that are critical to California's freight network and economy. I-10 is a designated Tier 1 route with some of the highest freight volumes in the State (California Department of Transportation [Caltrans] 2017).

The I-10 is located approximately 0.35 mile southwest of the project site. Also, the project site has regional access via Cherry Valley Boulevard to the I-10, and local access via Cherry Valley Boulevard. As described in the RDEIR, 100 percent of all truck traffic would use Cherry Valley Boulevard coming to and from the I-10, which would reduce distance traveled on local roadways and fuel consumption associated with the operation of the project. To help ensure this, MM AQ-1g of the RDEIR, Section 3.3, Air Quality, requires signs to be installed at each exit driveway, providing directional information to the County's truck route. Therefore, locating the project in close proximity to the I-10 corridor will reduce vehicle miles traveled for dropping off and picking up goods during operation of the project as compared to truck facilities located further away from the I-10.

Mitigation Measure AQ-1g(c)—Model Year 2010 Engines

The California Truck and Bus Rule requires nearly all trucks and buses to have 2010 model year engines or equivalent by January 1, 2023. Thus, prior to 2023, a typical fleet could contain a mix of model year engines with varying fuel and emission standards, including those engines which do not meet the 2010 model year requirements. However, MM AQ-1g(c) requires that the project meet this standard earlier than mandated by State law. Thus, all diesel-fueled Medium-Heavy Duty Trucks and all Heavy-Heavy Duty Trucks accessing the project must meet Model Year 2010 or newer engine emission standards. As explained below, this mitigation requirement will reduce the project's anticipated fuel consumption. The County would enforce MM AQ-1g(c) by requiring the fleet contractor to provide haul trucks that display the appropriate emission control labels required under the California Truck and Bus Rule. Although the efficiency can vary based on the type of engine (gasoline, diesel, hybrid), the requirement to use newer engines would result in overall reductions in fuel consumption compared to older heavy-duty vehicles.

The mobile source emissions inventory is the ARB's tool for assessing the population, activity (including fuel consumption), and emissions from mobile sources. The ARB Emissions Factors model (EMFAC) was developed and is used by ARB to assess emissions from on-road vehicles including cars, trucks, and buses in California, and to support ARB's regulatory and air quality planning efforts to meet the Federal Highway Administration (FHWA) transportation planning requirements. The EMFAC Web Database contains daily emissions and emission rates data for all areas, calendar years and seasons generated

from the EMFAC model (ARB 2018). The most recent approved version is EMFAC2014. A comparison of the Statewide average heavy-duty truck fleet (all model years) with 2010 or newer engines shows that fuel consumption rates in the year 2021 would improve by 3 percent with implementation of MM AQ-1g(c) of the RDEIR, Section 3.3, Air Quality. That would result in a reduction of 167 gallons of fuel per day from the estimates shown in Table 2-2. Calculations of fuel savings associated with MM AQ-1g(c) are included in Appendix C.

Mitigation Measures AQ-1g(e) and AQ-1g(f)—SmartWay Program

MM AQ-1g(e) requires the facility operator to become a SmartWay Partner, and MM AQ-1g(f) requires the facility operator to incorporate incentives and requirements such that the maximum feasible number of truck trips will be carried by SmartWay 1.0 or greater carriers. The SmartWay Program is a public-private initiative between the EPA, large and small trucking companies, rail carriers, logistics companies, commercial manufacturers, retailers, and other federal and State agencies. Its purpose is to improve fuel efficiency and the environmental performance of the goods movement supply chains. SmartWay is comprised of four components:

- 1. **SmartWay Transport Partnership:** A partnership in which freight carriers and shippers commit to benchmark operations, track fuel consumption, and improve performance annually;
- 2. **SmartWay Technology Program:** A testing, verification, and designation program to help freight companies identify equipment, technologies, and strategies that save fuel and lower emissions;
- 3. **SmartWay Vehicles:** A program that ranks light-duty cars and small trucks and identifies superior environmental performers with the SmartWay logo; and
- 4. **SmartWay International Interests:** Guidance and resources for countries seeking to develop freight sustainability programs modeled after SmartWay.

SmartWay effectively refers to requirements geared towards reducing fuel consumption. EPA has determined the following types of technologies provide fuel saving and/or emission reducing benefits when properly used in their designed applications, and has verified certain products:

- Idle reduction technologies.
- Aerodynamic technologies that minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer. According to ARB, tractor aerodynamics (e.g., streamlined hood, sleeper cab roof fairings, gap fairings) and trailer aerodynamics (side skirts, front gap fairings, rear trailer fairings) could result in a 5 percent or more improvement in fuel efficiency (ARB 2010).
- Low rolling resistance tires can roll longer without slowing down, thereby reducing the amount of fuel used. Rolling resistance (or rolling friction or rolling drag) is the force resisting the motion when a tire rolls on a surface. A tire with less rolling resistance is more fuel efficient than one with greater rolling resistance. Low rolling resistance tires would also result in a 1.5 percent fuel efficiency improvement (ARB 2010).

Becoming a SmartWay Partner includes credible efficiency tracking and sustainability accounting, measurable efficiency performance, identification of operational efficiencies, and sustainability innovations. Through the SmartWay Technology Program, the EPA has evaluated the fuel saving benefits of various devices through grants, cooperative agreements, emissions and fuel economy testing, demonstration projects, and technical literature review.

ARB approved the Tractor-Trailer Greenhouse Gas regulation, effective in 2010, to significantly reduce GHG emissions and fuel consumption from certain heavy-duty tractor-trailers. The regulation applies primarily to owners of 53-foot or longer box-type trailers, and owners of the heavy-duty tractors that pull them on California highways. Between 2010 and 2020, the ARB estimated that truckers and trucking companies would reduce diesel fuel consumption by as much as 500 million gallons in California and 3.3 billion gallons across the nation (ARB 2019). The tractors and trailers subject to this regulation must either use EPA SmartWay certified tractors and trailers or retrofit their existing fleet with SmartWay verified technologies.

Through a combination of measures in MM AQ-1g and compliance with the Tractor-Trailer Greenhouse Gas regulation, the project would incorporate SmartWay technologies to improve fuel efficiency during operations. MM AQ-1g(e) requires the facility operator to become a SmartWay Partner and to work with EPA to measure, benchmark and improve logistics operations to reduce fuel consumption and environmental impacts. The project is consistent with this measure and its intended implementation, since the project will be required to become a SmartWay Partner.

To meet the trailer requirements of the Tractor-Trailer Greenhouse Gas regulation, project operations will include use of SmartWay certified technologies. In addition to the low rolling resistance tire requirements, dry vans must use technologies that provide at least a 5 percent improvement in fuel efficiency. Therefore, by complying with the Tractor-Trailer Greenhouse Gas regulation, the project would also be consistent with the requirements of MM AQ-1g(f) to ensure that SmartWay carriers will be used during project operations. The SmartWay requirements would result in a reduction of approximately 384 gallons of fuel per day from the estimates shown in Table 2-2. Calculations are shown in Appendix C.

Mitigation Measure AQ-1g—Idling Regulations

As discussed above in State regulations, California Code of Regulations, Title 13, Section 2485, limits idling times of commercial motor vehicles that operate in the State of California with gross vehicle weight ratings of greater than 10,000 pounds to no more than 5 minutes. MM AQ-1g(a) and AQ-1g(b) requires that (1) signs will be posted informing truck drivers about the health effects of diesel particulates, the ARB diesel idling regulations, and the importance of being a good neighbor by not parking in residential areas, and (2) signs will be posted in all dock and delivery areas containing the following: (i) truck drivers shall turn off engines when not in use; (ii) trucks shall not idle for more than 5 minutes; and (iii) telephone numbers of the building facilities manager and ARB to report violations. In addition, MM AQ-1g(h) within the RDEIR, Section 3.3, Air Quality, requires that the site shall be designed such that any check-in point for trucks is well inside the facility to ensure that there are no trucks queuing outside the facility. Limitations on idling of vehicles would result in fuel savings on and

around the project site. Implementation of these requirements will reduce fuel consumption while vehicles are not in use and ensure that operations on the project site are not wasteful or inefficient.

Mitigation Measure AQ-1h—Light-Duty Vehicles

Although a smaller percentage of operational fuel use, the RDEIR included measures to reduce vehicle miles traveled and energy consumption from light-duty automobiles and trucks associated with employee commutes. MM AQ-1h of the RDEIR, Section 3.3, Air Quality, requires all tenants to participate in Riverside County's Rideshare Program. The purpose of the program would be to discourage single-occupancy vehicle trips and encourage alternate modes of transportation such as carpooling, transit, walking, and biking. The program shall provide employees with assistance in using alternate modes of travel, including carpooling encouragement, ride-matching assistance, and vanpool assistance. Additionally, each building shall provide secure bicycle storage space equivalent to 2 percent of the automobile parking spaces provided and a minimum of two shower and changing facilities within 200 yards of a building entrance to encourage alternative and less fuel consuming modes of travel. In addition, as discussed above, the project location has regional access via Cherry Valley Boulevard to the I-10, and local access via Cherry Valley Boulevard. Workers can commute from nearby areas such as Beaumont and Calimesa, reducing overall vehicle miles traveled since those locations are less than 5 miles from the project site.

Projects that provide ride sharing programs and "end-of-trip" facilities for bicycle riders will result in fewer overall trips and fewer cars driving the same trip, and therefore, result in a decrease in vehicle miles traveled. According to the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures*, rideshare programs will result in a 1 to 15 percent reduction in vehicle miles traveled for commute trips (CAPCOA 2010). This would result in a combined reduction of approximately 7 to 99 gallons per day from the fuel consumption estimates for passenger vehicles and light-duty trucks shown in Table 2-2. Calculations are shown in Appendix C.

Mitigation Measure AQ-1h—Electric Charging Stations

The use of electric vehicles and equipment would reduce consumption of gasoline and diesel fuel associated with project operations. MM AQ-1h requires that a minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building and that each building shall provide preferred parking for electric, low-emitting and fuel-efficient vehicles equivalent to 5 percent of the required number of parking spaces. To further reduce consumption of fuel from on-site equipment, all forklifts and yard trucks shall be electric with the necessary electrical charging stations provided. These mitigation measures were required to address criteria pollutant emissions, but would have corresponding reductions in fuel consumption.

Mitigation Measure ENER-1—Other Accommodations

Executive Order B-32-15 directed the State agencies to establish targets to improve freight efficiency, transition to zero emission technologies, and increase the competitiveness of California's freight transport system. Although not widely used today, the ARB expects advancements in the development of mobile source technologies and fuels. Nearly 80 percent of new medium and heavy commercial vehicles sold in the United States are fueled by diesel (Bulk Transporter 2018). According to the ARB, medium-duty battery electric trucks have limited commercial availability, mostly as vans.

Heavy-duty electric trucks are currently used in demonstration or pilot projects with a goal to increase commercial availability by 2030.

The project does not legislate or control emissions standards or technologies that trucks will use in the future, nor does it otherwise own or manage truck fleets. Thus, the project does not control the rate in which future truck technology including alternatively fueled trucks, are adopted. Notwithstanding, the project will accommodate gas, diesel, and alternatively fueled trucks, including biodiesel, natural gas, and electric vehicles as they become commercially feasible and/or the government agencies controlling emissions standards require it.

Since there are limited electric medium- and heavy-duty trucks in use and standards and regulations have not been established, the project would have to speculate on when such trucks would be commonly used and what type of specific infrastructure (e.g., amps, charging equipment) would be required. However, to further support the deployment of alternative fuels, specifically zero emission technologies such as battery electric engines, the project would design the building to include infrastructure that would support the deployment of zero emission technologies, if and when they become available, by implementing MM ENER-1.

MM ENER-1

Infrastructure for Electric Trucks/Transportation Refrigeration Units. The building shall be constructed with electrical conduits located at all loading docks, and other suitable location(s), to facilitate installation of electrical wiring and charging stations or plugs, in anticipation of future technology that allows trucks to operate partially on electricity.

Therefore, vehicle fuel consumption associated with the proposed project would not be inefficient, wasteful, or unnecessary and would not otherwise conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Summary

As discussed above, the project's transportation energy use would not violate federal, State, and/or local energy standards, inhibit pedestrian or bicycle mobility, inhibit feasible opportunities to use alternative energy sources, or otherwise inhibit the conservation of energy. Requirements that the project operations use 2010 or newer on-road heavy-duty trucks, SmartWay verified technologies, ride sharing programs, and "end-of-trip" facilities would reduce fuel and energy consumption by approximately 9 to 10 percent, or up to 99 gallons per day from passenger vehicles and light-duty trucks and 551 gallons per day from heavy-duty trucks. Table 2-3 shows the revised fuel consumption estimates during operation of the project that would be reduced from 6,569 gallons per day to 5,919 gallons per day.

Table 2-3: Daily Vehicle Fuel Consumption

Vehicle Type	Percent of Vehicle Trips	Baseline Daily Fuel Consumption (gallons)	Daily Fuel Consumption with Energy Saving measures (gallons)
Passenger Vehicles	35	329	280
Light trucks	t trucks 27		281
Heavy trucks	38	5,909	5,358
Total	100 6,56		5,919
Source: FCS 2015, 2019.			

These reductions are in addition to the improvements in fuel economy as required by federal regulations and idling limitations. Also, locating the project in close proximity to the I-10 would further reduce fuel consumption by limiting vehicle miles traveled and the amount of time spent in stop-and-go traffic on local roads. To further reduce fuel consumption from light-duty vehicles, the project will participate in rideshare programs and install electric vehicle charging stations. Finally, MM ENER-1 requires the project to support the future phase-in of zero and near-zero technologies for trucks during operations by installing electrical conduits located at all loading docks, and other suitable location(s), to facilitate installation of electrical wiring and charging stations or plugs, in anticipation of future technology that allows trucks to operate partially on electricity.

Therefore, the project's transportation-related energy usage would not be inefficient, wasteful, or unnecessary, and would not otherwise conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact is less than significant.

2.3 - Building Energy Use and Air Pollutant Emissions

On July 6, 2017, the SCAQMD submitted comments on the RDEIR suggesting that the Lead Agency incorporate on-site mitigation measures to further reduce significant operational air quality impacts by "maximiz[ing] the use of solar energy including solar panels" and "installing the maximum possible number of solar energy arrays on the building roofs and/or on the Project site to generate solar energy for the facility." This section responds to the SCAQMD's comment.

First, the use of solar energy, including solar panels, will not meaningfully reduce the project's significant and unavoidable operational air emission impacts. Specifically, as shown in RDEIR Section 3.3, Air Quality, Table 3.3-15, Mitigated Regional Operational Emissions-Summer, the project would generate approximately 65 pounds of reactive organic gas (ROG) and 308 pounds of NO_X emissions per day with mitigation compared to the recommended threshold of 55 pounds per day. The overwhelming majority of the operational NO_X emissions are generated by project truck traffic at approximately 301 pounds per day, or 98 percent of the total NO_X emissions. Area sources, such as architectural coatings and the use of consumer products, generate the majority of ROG emissions at 49 pounds per day, or 75 percent of the total ROG emissions.

Criteria pollutant emissions associated with the project's building operations energy use are generated by the use of natural gas for heating of the building and water. The project's operational air pollutants associated with the building's energy consumption were estimated at 0.1 pound per day of ROG and 1.0 pound per day of NO_x. Therefore, even if all energy consumption on the project site were eliminated, this would result in a negligible percentage reduction in ROG and NO_x emissions, since emissions from natural gas consumption were estimated at 0.2 percent of the daily ROG emissions and 0.32 percent of the daily NO_x emissions. In that scenario, the project would continue to generate approximately 65 pounds of ROG and 307 pounds of NO_x per day with mitigation compared to the recommended threshold of 55 pounds per day. Therefore, the provision of solar energy savings would not result in any demonstrable, quantifiable reduction in ROG and NO_x emissions, and would not avoid or substantially lessen the significant impact that was identified in RDEIR Section 3.3, Air Quality.

Moreover, State CEQA Guidelines Section 15126.4(a)(4) requires that any mitigation measures be roughly proportional to the impacts of the project. Requiring solar, no matter how much, would neither effectively lessen the project's significant NO_x and ROG air emissions impact nor be roughly proportional to such impact.

Second, and notwithstanding the above, the project will install a 1.25 megawatt (MW) direct current (DC) solar rooftop energy system, which is estimated to offset up to approximately 100 percent of project's annual electricity consumption. Specifically, the project originally committed to install solar photovoltaic (PV) arrays on the buildings' roofs to provide a minimum of 23 percent of the project's power needs. This requirement was outlined in Table 3.7-4 (see Feature E6.A.1), as well as MM GHG-1, located within the RDEIR. Since the adoption of the RDEIR, more detailed project design studies have been completed that indicate the amount of electricity generated by the PV arrays is anticipated to greatly exceed the minimum 23 percent projected in the RDEIR. As per the more specific solar PV array design completed since adoption of the RDEIR, and to ensure the maximum possible solar PV arrays are installed on the project site, the project would implement MM AIR-1i to install a 1.25 MW DC system that would cover approximately 220,000 square feet of the building roof areas. (See Appendix B.)

Electricity generation from the project's solar PV arrays was estimated using the National Renewable Energy Laboratory PVWatts® Calculator. As shown in Appendix D, the solar PV arrays would generate an estimated 2,058,462 kWh/year. In comparison, the total electricity consumption for the project, based on the most recent estimates, is calculated to be less, at 1,987,440 kWh/year: Building 1 is estimated to consume approximately 803,712 kilowatt-hours per year (kWh/year), and Building 2 is estimated to consume approximately 1,183,728 kWh/year. (See Appendix A.)

2-14 FirstCarbon Solutions

As discussed in Section 3.3, Air Quality, of the RDEIR, the CalEEMod was used to estimate the project's consumption of natural gas and associated criteria pollutant emissions. CalEEMod is designed as a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential emissions associated with construction and operation from a variety of land uses.

Appendix A of the CalEEMod User's Guide serves as the basis for all methods and assumptions and data source references that are used for calculating all emission categories. CalEEMod uses the California Commercial End Use Survey database to develop energy intensity values (natural gas usage per square foot per year) for non-residential buildings. The emission factors for natural gas combustion are from Compilation of Air Pollutant Factors (AP-42). CalEEMod estimates emissions associated with buildings by multiplying by the natural gas use by appropriate emission factors.

Implementation of MM AIR-1i will ensure that the applicant installs a 1.25 MW DC solar PV array on the project buildings.

MM AIR-1i The applicant shall install a 1.25 MW DC system to generate an estimated 2 million kWh annually that would offset electricity consumption during project operations.

Finally, as previously described in the RDEIR, the project will be designed to (1) be equivalent to the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Silver Certification; and (2) comply with Title 24 of the California Code of Regulations.

The LEED rating system is intended to assess and promote sustainable design and operation, including reducing energy use and water consumption, among other sustainable materials and indoor environmental quality parameters. LEED recognizes four levels of certification. The number of points a project earns determines the level of LEED certification that the project will receive. Typical certification thresholds are as follows: Certified—40 to 49 points, Silver—50 to 59 points, Gold—60 to 79 points, and Platinum—80-plus points. Additionally, as discussed above, the project includes the use of rooftop solar panels. LEED projects registered on or after April 8, 2016, must demonstrate an 18 percent improvement in energy efficiency for new buildings compared to the baseline building performance (USGBC 2009).

The State of California regulates energy consumption under Title 24 of the California Code of Regulations. The Title 24 Building Energy Efficiency Standards were developed by the CEC and apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and non-residential buildings. Consistent with the California Code of Regulations, the County of Riverside has adopted ordinances to ensure implementation of building standards for all projects.

2.3.1 - Summary

In conclusion, the incorporation of solar energy including solar panels, no matter how much, would not effectively reduce or avoid the project's significant and unavoidable operational air emission impacts. Notwithstanding, however, the project will maximize the use of solar panels by installing a 1.25 MW DC system that would cover approximately 220,000 square feet of the building roof area and offset an estimated 100 percent of the project's electricity consumption.

It should also be noted that, based on the most recent electricity consumption estimates, the solar panel design, LEED Silver equivalency commitment, and Title 24 compliance, building energy use associated with the project would also not be wasteful, inefficient, or unnecessary in accordance with State CEQA Guidelines Appendix F.



SECTION 3: PERSONS AND ORGANIZATIONS CONSULTED

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SECTION 5: REFERENCES

- Bulk Transporter. IHS Markit Study. Sep 19, 2018. Website: https://www.bulktransporter.com/green-trends/report-shows-diesel-will-dominate-even-electric-trucks-gain-market-share. Accessed July 2, 2019.
- California Air Pollution Control Officers Association (CAPCOA). 2010. Quantifying Greenhouse Gas Mitigation Measures. Website: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf. Accessed July 2, 2019.
- California Air Resources Board (ARB). 2008. Off-Road Compression-Ignition (Diesel) Engines and Equipment. Website: https://ww3.arb.ca.gov/msprog/offroad/orcomp/background.htm. Accessed July 2, 2019.
- California Air Resources Board (ARB). 2010. Proposed Amendments to the Truck and Off-Road Vehicle Regulations. Website:

 https://ww3.arb.ca.gov/msprog/onrdiesel/documents/workshop_final_093010.pdf.
 Accessed July 2, 2019.
- California Air Resources Board (ARB). 2010. Proposed Amendments to the Truck and Off-Road Vehicle Regulations. Website:

 https://ww3.arb.ca.gov/msprog/onrdiesel/documents/workshop_final_093010.pdf.
 Accessed July 2, 2019.
- California Air Resources Board (ARB). 2011. Facts about the Advanced Clean Cars Program. Website: https://www.arb.ca.gov/msprog/zevprog/factsheets/advanced_clean_cars_eng.pdf. Accessed July 2, 2019.
- California Air Resources Board (ARB). 2011. Facts about the Advanced Clean Cars Program. Website: https://www.arb.ca.gov/msprog/zevprog/factsheets/advanced_clean_cars_eng.pdf. Accessed July 2, 2019.
- California Air Resources Board (ARB). 2018. EMFAC Web Database. Website: https://www.arb.ca.gov/emfac/?bay. Accessed July 2, 2019.
- California Air Resources Board (ARB). 2019. Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation. Website: https://ww3.arb.ca.gov/cc/hdghg/hdghg_mockup.htm. Accessed July 2, 2019.
- California Department of Transportation (Caltrans). 2017. I-10 Transportation Concept Report.

 Website: http://www.dot.ca.gov/hq/tpp/corridor-mobility/D8_docs/I10.pdf. Accessed July 2, 2019.
- Federal Register. 2009. National Highway Traffic Safety Administration (NHTSA). Average Fuel Economy Standards Passenger Cars and Light Trucks Model Year 2011. Website: https://www.federalregister.gov/documents/2009/03/30/E9-6839/average-fuel-economy-standards-passenger-cars-and-light-trucks-model-year-2011. Accessed July 2, 2019.

- Federal Register. 2009. National Highway Traffic Safety Administration (NHTSA). Average Fuel Economy Standards Passenger Cars and Light Trucks Model Year 2011. Website: https://www.federalregister.gov/documents/2009/03/30/E9-6839/average-fuel-economy-standards-passenger-cars-and-light-trucks-model-year-2011. Accessed July 2, 2019.
- National Highway Traffic Safety Administration (NHTSA). 2009. NHTSA and EPA Establish New National Program To Improve Fuel Economy And Reduce Greenhouse Gas Emissions For Passenger Cars And Light Trucks. Website: https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/cafe-ghg_fact_sheet.pdf. Accessed July 2, 2019.
- National Renewable Energy Laboratory (NREL). 2019. NREL PVWatts Calculator. Website: https://pvwatts.nrel.gov. Accessed July 2, 2019.
- United States Environmental Protection Agency (EPA). 2011. EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy Duty Vehicles Website:

 https://nepis.epa.gov/Exe/ZyPDF.cgi/P100BOT1.PDF?Dockey=P100BOT1.PDF. Accessed July 2, 2019.
- United States Environmental Protection Agency (EPA). 2012. EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks. Website:

 https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EZ7C.PDF?Dockey=P100EZ7C.PDF. Accessed July 2, 2019.
- United States Environmental Protection Agency (EPA). 2017. Overview for Renewable Fuel Standard. Website: https://www.epa.gov/renewable-fuel-standard-program/overview-renewable-fuel-standard. Accessed July 2, 2019.
- United States Environmental Protection Agency (EPA). 2018. Final Rule for Greenhouse Gas
 Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—
 Phase 2. Website: https://www.epa.gov/regulations-emissions-vehicles-and-engines/finalrule-greenhouse-gas-emissions-and-fuel-efficiency. Accessed July 2, 2019.
- United States Green Building Council (USGBC). 2009. Leadership in Energy and Environmental Design (LEED) BD+C. Minimum energy performance. Website: https://www.usgbc.org/credits/core-shell-new-construction/v2009/eap2. Accessed July 2, 2019.