Energy Consumption Assessment
for the
VEGA SES 6 Solar and Battery Storage Project

County of Imperial, California

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January 2023

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LIST OF ACRONYMS AND ABBREVIATIONS

AC	Alternating Current
AF	Acre Feet
APN	Accessors Parcel Number
BESS	Battery Electric Storage System
BLM	Bureau of Land Management
CalEEMod	California Emissions Estimator Model
CAISO	California Independent System Operator
CARB	California Air Resources Board
CEC	California Energy Commission
CPUC	California Public Utilities Commission
DC	Direct Current
EO	Executive Order
EPS	Emissions Performance Standard
Gen-tie	Electrical generator intertie
GHG	Greenhouse gas emissions
HSAT	Horizontal Single-Axis Tracker
ICAPCD	Imperial County Air Pollution Control District
IID	Imperial Irrigation District
Kv	kilovolt
kWh	Kilowatt-Hours
MW	Megawatt
MWh	Megawatt Hour
PPA	Purchasing Power Agreement
PV	Photovoltaic
Project	VEGA SES 6 Project
RE	Renewable Energy
RPS	Renewable Portfolio Standard
SB	Senate Bill
SR	State Route

1.0 INTRODUCTION

This report documents the results of an Energy Impact Assessment completed for the VEGA SES 6 Solar and Battery Storage Project (Project) in Imperial County (County), California, which includes the construction of an 80 megawatt (MW) solar energy generation facility and a 160 MW battery energy storage system (BESS). The Project also proposes an electrical generator intertie (gen-tie) transmission line to connect to the Imperial Irrigation District's (IID) 161 kilovolt (kV) "L" Line. This report was prepared to analyze the potential direct and indirect environmental impacts associated with Project energy consumption, including the depletion of nonrenewable resources (oil, natural gas, coal, etc.) during the construction and operational phases. The impact analysis focuses on the four sources of energy that are relevant to the Proposed Project: electricity, natural gas, the equipment-fuel necessary for Project construction, and the automotive fuel necessary for Project operations.

1.1 Project Location

The Proposed Project Site is located on approximately 320 acres of privately-owned vacant land on a single parcel (Assessor Parcel Number (APN) 034-160-002) in the unincorporated Imperial County, California (Figure 1-1. *Project Location Map*). The site is located approximately 6 miles south of the southern-most edge of the Salton Sea; 10 miles west of the City of Brawley; and approximately 5 miles southwest of the community of Westmorland. The solar energy facility site is located directly south of Andre Road and 0.50 mile west of the Westside Main Canal (Figure 1-2. *Project Vicinity Map*). The proposed BESS would be located in the northwest portion of the Project Site. The proposed gen-tie transmission line would span approximately four miles to connect to the IID's existing 161 kV "L" Line. The entire gen-tie route would be on federal lands managed by the Bureau of Land Management (BLM) within the California Desert Conservation Area planning area. The gen-tie route would begin at the northwest corner of the solar facility site, head west approximately 0.5 miles on BLM land, then north for approximately 1.0 mile, and then west for 2.5 miles along Garvey Road where it would connect to the IID 161 kV "L" Line.

The topography of the Project Site is relatively flat, with elevations ranging between -39 meters (-129 feet) and -6 meters (-21 feet). The solar energy facility site is bound by undeveloped Open Space/BLM land immediately to the west and south, and active agricultural land to the north and east. The Westside Main Canal travels southeast to northwest and is located northeast and east of the solar energy facility site.

Figure 1-1

Figure 1-2

1.2 Project Overview

In 2016, the County adopted the Imperial County Renewable Energy and Transmission Element, which includes a Renewable Energy (RE) Zone (RE Overlay Map). This General Plan element was created as part of the California Energy Commission Renewable Energy Grant Program to amend and update the County's General Plan to facilitate future development of renewable energy projects.

The County Land Use Ordinance, Division 17, includes the RE Overlay Zone, which authorizes the development and operation of renewable energy projects with an approved conditional use permit (CUP). The RE Overlay Zone is concentrated in areas determined to be the most suitable for the development of renewable energy facilities while minimizing the impact on other established uses. CUP applications proposed for specific renewable energy projects not located in the RE Overlay Zone would not be allowed without an amendment to the RE Overlay Zone.

As shown on Figure 1-1, the entire Project Site is located outside of the RE Overlay Zone. Therefore, the applicant is requesting a General Plan Amendment to include/classify the Project Site (APN No. 034-160-002) into the RE Overlay Zone. No change in the underlying General Plan land use (Agriculture) is proposed.

1.3 Project Description

As previously described, the Proposed Project involves the construction and operation of an 80 MW PV solar facility with an integrated 160 MW BESS on approximately 320 acres of privately-owned land. The Project would be comprised of solar PV arrays panels, an on-site substation, BESS, gen-tie line, inverters, transformers, underground electrical cables, and access roads. These Project components are described in detail below and depicted in Figure 1-3. *Site Plan*.

Figure 1-3

Photovoltaic Panels/Solar Arrays

The Project proposes to use either thin film or crystalline solar PV technology modules mounted either on fixed frames or horizontal single-axis tracker (HSAT) systems. The fixed-frame PV module arrays would be mounted on racks that would be supported by driven piles. The fixed-frame racks would be secured at a fixed tilt of 20 to 30 degrees from horizontal facing a southerly direction. As proposed, individual PV modules would be mounted two high on a fixed frame, providing 12 to 24 inches of ground clearance and resulting in the tops of the panels at approximately 7.5 feet above the ground. The fixed PV modules would be arranged in arrays spaced approximately 15 to 25 feet apart (pile-to-pile) to maximize performance and to allow access for panel cleaning. These arrays would be separated from each other and the perimeter security fence by up to 30-foot-wide interior roads.

If HSAT technology is used, the PV modules would rotate around the north-south HSAT axis so that the PV modules would continue to face the sun as the sun moves across the sky throughout the day. The PV modules would reach their maximum height (up to 9 feet above the ground, depending on the final design) at both sunrise and sunset, when the HSAT is rotated to point the modules at the rising or setting sun. At noon, or when stowed during high winds, when the HSAT system is rotated so that the PV modules are horizontal, the nominal height would be about six feet above the ground, depending on the final design. The individual PV systems would be arranged in large arrays by placing them in columns spaced approximately 10 feet apart to maximize operational performance and to allow access for panel cleaning and maintenance. Individual HSAT PV modules, each approximately two feet wide by four feet long (depending on the specific PV technology selected), would be mounted on a frame which is attached to an HSAT system. These HSAT arrays would be separated from each other and the perimeter security fence by up to 30-foot-wide roads, consistent with County emergency access requirements.

Battery Energy Storage System

The proposed BESS would be constructed adjacent to the Project's substation and would consist of either lithium ion or flow batteries. The batteries will either be housed in storage containers or buildings fitted with heating, ventilation, and air conditioning and fire suppression systems. Inside the housing, the batteries would be placed on racks, the orientation of which depends on the type of housing. Underground trenches with conduits will be used to connect the batteries to the control and monitoring systems, and inverters to convert the PV-produced direct current (DC) power to alternating current (AC) power. The BESS would be capable of storing up to 160 MW.

Substation and Interconnection Switching Station

As shown in Figure 1-3, a new substation would be constructed in the northwest portion of the solar energy facility site. The inverters would be connected to pad-mounted transformers. This system collects the energy from all the inverters and then transmits it through a generator step-up transformer, which steps up the voltage level to the 161 kV of the existing IID "L" line.

A new interconnection switching station would be constructed in the northwest corner of the solar energy facility site, immediately adjacent to the substation. The switching station would include circuit breakers, switches, overhead bus work, protective relay equipment and an electrical control building. The switching station would operate at 161 kV and be equipped with two circuit breakers, allowing for looping in of the IID 161 kV "L" transmission line as well as connection to the Project's gen-tie line. The substation and

switching station would be connected via a single overhead 161 kV line. The switching station would be enclosed within its own fence.

The medium voltage power produced by the Project would be conveyed underground, or aboveground where necessary to cross over any sensitive site features, to connect to the Project's interconnection facilities. The Project's interconnection facilities design would meet all necessary utility standards and requirements. As required, surge arrestors would be used to protect facilities and auxiliary equipment from lightning strikes or other disturbances. Distribution from the site would be via an overhead connection.

Electrical Generator Intertie (Gen-Tie) Transmission Line

As previously stated, the Proposed Project includes an approximately 4-mile gen-tie transmission line that would connect to the IID's existing 161 kV "L" Line. The 4-mile gen-tie line would include a total of 78 pole structures, with a combination of tangent double circuit wood pole structures, dead-end double circuit wood pole structures, and double circuit steel poles. At the interconnection point, three wood pole structures and dead-end wood structures would be used. The height of the proposed gen-tie transmission structures would be 75 feet. The electrical energy produced by the Project would be conducted through the project substation to the proposed 161 kV gen-tie line and delivered to the existing IID-approved point of interconnection at the IID 161 kV "L" line. Construction of the gen-tie line would result in approximately 24.5 acres of disturbed area.

Site Access

The solar energy facility site would include one primary access driveway, proposed via State Route (SR) 78 from the north and west, and across the Westside Main Canal, via county roadways (Garvey Road and Andre Road). This driveway would be provided with a minimum of 30-foot double swing gates with "Knox Box" for keyed entry. Internal to the solar energy facility site, up to 30-foot-wide roads would be provided between the PV arrays, as well as around the perimeter of the solar energy facility site yet inside the perimeter security fence to provide access to all areas of the site for maintenance and emergency vehicles.

Project Construction

Construction activities would primarily involve demolition and grubbing; grading of the Project Area to establish access roads and pads for electrical equipment (inverters and step–up transformers); trenching for underground electrical collection lines; the installation of solar equipment and security fencing; and the offsite infrastructure work required for the IID gen-tie transmission line route. Stormwater management facilities would be constructed internally within the Project Site and would consist of basins and infiltration areas. Construction is estimated to take 12 to 18 months and would begin in 2023. A temporary, portable construction supply container would be located at the Project Site at the beginning of construction and removed at the end of construction.

Dust generated during construction would be controlled by watering and, as necessary, the use of other dust suppression methods and materials accepted by the Imperial County Air Pollution Control District (ICAPCD). The Proposed Project would require approximately 550-acre feet (AF) of water for dust suppression and site grading during construction of the arrays, BESS area, and onsite substation. Water for construction (primarily dust control) would be obtained from local IID irrigation canals or laterals in conformance with IID construction water acquisition requirements. Water would be picked up from a nearby

lateral canal and delivered to the construction location by a water truck that would be capable of carrying approximately 4,000 gallons per load.

The number of on-site construction workers for the solar energy facility is not expected to exceed 150 workers at any one time. The number of on-site construction workers for the BESS and the substation is not expected to exceed 100 workers at any one time.

Project Operations

Once construction is completed, the facility would be remotely operated, controlled and monitored and with no requirement for daily on-site employees. Security personnel may conduct unscheduled security rounds and would be dispatched to the Project Site in response to a fence breach or other alarm.

Up to two to three people would be contracted (part-time) to perform all routine and emergency operational and maintenance activities. Such activities include inspections, equipment servicing, site and landscape clearing, and periodic washing of the PV modules if needed (up to two times per year) to maintain power generation efficiency. Vegetation growing on the Project Site would periodically (approximately every 3 months) be removed manually and/or treated with herbicides.

Periodic washing of the PV modules is not expected to be necessary but could be needed to remove dust to maintain power generation efficiency. The amount of water needed for this purpose is conservatively estimated at 10 AF per washing, with up to two washings per year, or a total of up to 20 AF per year. This water would be water purchased from the IID.

Electricity generated by the facility could be sold under the terms of a purchasing power agreement (PPA) with a power purchaser (i.e., utility service provider). At the end of the PPA term, the owner of the facility may choose to enter into a subsequent PPA, update technology and re-commission, or decommission and remove the generating facility and its components. Upon decommissioning, the site could be converted to other uses in accordance with applicable land use regulations in effect at that time. A collection and recycling program will be executed to promote recycling of project components and minimize disposal in landfills. All permits related to decommissioning would be obtained, where required.

2.0 ENERGY CONSUMPTION

2.1 Energy Types and Sources

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. Natural gas provides California with a majority of its electricity followed by renewables, large hydroelectric and nuclear (California Energy Commission [CEC] 2021a). Imperial Irrigation District (IID), the sixth largest electrical utility in California serving more than 150,000 customers in the Imperial Valley and parts of Riverside and San Diego counties, provides electrical services to the Project Area. IID controls more than 1,100 megawatts of energy derived from a diverse resource portfolio that includes its own generation, and long- and short-term power purchases. Located in a region with abundant sunshine, enviable geothermal capacity, wind and other renewable potential, IID has met or exceeded all Renewable Portfolio Standard (RPS) requirements to date, procuring renewable energy from diverse sources, including biomass, biowaste, geothermal, hydroelectric, solar and wind.

The Southern California Gas Company provides natural gas services to Imperial County. As the nation's largest natural gas distribution utility, the Southern California Gas Company delivers natural gas energy to 21.6 million consumers through 5.9 million meters in more than 500 communities. The Southern California Gas Company's service territory encompasses approximately 20,000 square miles throughout Central and Southern California, from Visalia to the Mexican border.

Imperial County, which encompasses the Project Site, contains 54 power plants generating electricity, of which 23 are solar-powered, 18 are geothermal, eight are hydro-powered, three are natural gas-fired, one is biomass-fired, and one is wind-powered (CEC 2021b).

2.1.1 Energy Consumption

Electricity use is measured in kilowatt-hours (kWh) and natural gas use is measured in therms. Vehicle fuel use is typically measured in gallons (e.g. of gasoline or diesel fuel), although energy use for electric vehicles is measured in kWh.

The electricity consumption associated with all non-residential uses in Imperial County from 2017 to 2021 is shown in Table 2-1. As indicated, the demand has decreased since 2017.

Table 2-1. Non-Residential Electricity Consumption in Imperial County 2017 - 2021

Year	Electricity Consumption (kilowatt hours)
2021	841,302,847
2020	834,483,019
2019	839,095,659
2018	831,318,925
2017	817,450,656

Source: CEC 2022

The natural gas consumption associated with all non-residential uses in Imperial County from 2017 to 2021 is shown in Table 2-2. As indicated, the demand has stayed relative consistent since 2017.

Table 2-2. Non-Residential Natural Gas Consumption in Imperial County 2017-2020

Year	Natural Gas Consumption (therms)
2021	33,421,848
2020	33,813,700
2019	34,736,596
2018	31,159,562
2017	33,090,927

Source: CEC 2022

Automotive fuel consumption in Imperial County from 2017 to 2022 is shown in Table 2-3. Fuel consumption has slightly decreased between 2017 and 2022.

Table 2-3. Automotive Fuel Consumption in Imperial County 2017-2021

Year	Total Fuel Consumption
2022	218,702,737
2021	217,447,173
2020	195,778,823
2019	219,032,998
2018	219,075,991
2017	220,921,357

Source: California Air Resources Board (CARB) 2021

2.2 Regulatory Framework

2.2.1 State

Executive Order B-55-18

In September 2018 Governor Jerry Brown Signed Executive Order (EO) B-55-18, which establishing a new statewide goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Carbon neutrality refers to achieving a net zero carbon dioxide emissions. This can be achieved by reducing or eliminating carbon emissions, balancing carbon emissions with carbon removal, or a combination of the two. This goal is in addition to existing statewide targets for GHG emission reduction. EO B-55-18 requires the California Air Resource Board (CARB) to "work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

Senate Bill 1368

On September 29, 2006, Governor Arnold Schwarzenegger signed into law Senate Bill (SB) 1368 (Perata, Chapter 598, Statutes of 2006). The law limits long-term investments in baseload generation by the state's utilities to those power plants that meet an emissions performance standard jointly established by the CEC and the California Public Utilities Commission (CPUC).

The CEC has designed regulations that:

- Establish a standard for baseload generation owned by, or under long-term contract to, publicly owned utilities, of 1,100 pounds carbon dioxide per megawatt hour (MWh). This would encourage the development of power plants that meet California's growing energy needs while minimizing their emissions of greenhouse gas.
- Require posting of notices of public deliberations by publicly owned utilities on long-term investments on the CEC website. This would facilitate public awareness of utility efforts to meet customer needs for energy over the long term while meeting the State's standards for environmental impact.
- Establish a public process for determining the compliance of proposed investments with the emissions performance standard (EPS) (Perata, Chapter 598, Statutes of 2006).

2.2.2 Renewable Energy Sources (Renewable Portfolio Standards)

Established in 2002 under SB 1078 and accelerated by SB 107 (2006) and SB 2 (2011), California's Renewables Portfolio Standard (RPS) obligates investor-owned utilities, energy service providers, and community choice aggregators to procure 33 percent of their electricity from renewable energy sources by 2020. Eligible renewable resources are defined in the 2013 RPS to include biodiesel; biomass; hydroelectric and small hydro (30 megawatts or less); Los Angeles Aqueduct hydro power plants; digester gas; fuel cells; geothermal; landfill gas; municipal solid waste; ocean thermal, ocean wave, and tidal current technologies; renewable derived biogas; multi-fuel facilities using renewable fuels; solar photovoltaic; solar thermal electric; wind; and other renewables that may be defined later. Governor Jerry Brown signed SB 350 on October 7, 2015, which expands the RPS by establishing a goal of 60 percent of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses upon which an energy efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, establish efficiency targets for electrical and gas corporations consistent with this goal. SB 350 also provides for the transformation of the California Independent System Operator (CAISO) into a regional organization to promote the development of regional electricity transmission markets in the western states and to improve the access of consumers served by the CAISO to those markets, pursuant to a specified process. In 2018, SB 100 was signed by Governor Brown, codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard.

2.3 Energy Consumption Impact Assessment

2.3.1 Thresholds of Significance

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to energy if it would do any of the following:

1) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The impact analysis focuses on the four sources of energy that are relevant to the Proposed Project: electricity, natural gas, the equipment fuel necessary for Project construction, and the automotive fuel necessary for Project operations. Addressing energy impacts requires an agency to make a determination as to what constitutes a significant impact. There are no established thresholds of significance, statewide or locally, for what constitutes a wasteful, inefficient, and unnecessary consumption of energy for a proposed land use. For the purposes of this analysis, the amount of electricity and natural gas estimated to be consumed by the Project are quantified and compared to that consumed by all non-residential land uses in Imperial County. Similarly, the amount of fuel necessary for Project construction and operations is calculated and compared to that consumed in Imperial County.

2.3.2 Methodology

Levels of construction and operational related energy consumption estimated to be consumed by the Project include the number of kWh of electricity, therms of natural gas and gallons of gasoline. The amount of total construction-related fuel used was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1. Electricity and natural gas consumption estimates were calculated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0 (see Air Quality and Greenhouse Gas Emissions Assessment: VEGA SES 6 [ECORP 2023]). CalEEMod is a statewide land use computer model designed to quantify resources associated with both construction and operations from a variety of land use projects. Operational automotive fuel consumption has been calculated with EMFAC 2021. EMFAC 2021 is a mathematical model that was developed to calculate emission rates and rates of gasoline consumption from motor vehicles that operate on highways, freeways, and local roads in California.

2.3.3 Impact Analysis

Project Energy Consumption

The Project is proposing the development of an 80 MW solar energy generation system accompanied by a 160 MW BESS. The Project would directly support the RPS goal of increasing the percentage of electricity procured from renewable sources.

This impact analysis focuses on the four sources of energy that are most relevant to the Project: the equipment fuel necessary for construction, the electricity and natural gas necessary during operations, and the automotive fuel necessary for ongoing maintenance activities during operations. The amount of total construction-related fuel use was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1. The electricity and natural gas necessary during operations are compared with countywide consumption in 2021, the most recent year of data. The amount of operational fuel use was estimated using CARB's EMFAC2021 computer program, which provides projections for typical daily fuel usage in Imperial County. This analysis conservatively assumes that all of the automobile trips projected to arrive at the Project during operations would be new to Imperial County.

Energy consumption associated with the Proposed Project is summarized in Table 2-4.

Table 2-4. Proposed Project Energy and Fuel Consumption

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Facility Electrical and Natural Gas Consumption		
Electricity Consumption[1]	3,470,860 kilowatt-hours	0.41 percent
Natural Gas[1]	45 therms	0.0001 percent
Automotive Fuel Consumption		
Year One of Construction[2]	43,251 gallons	0.020 percent
Year Two of Construction[2]	34,581 gallons	0.016 percent
Project Operations[3]	2,785 gallons	0.001 percent

Source: [1]CalEEMod; [2]Climate Registry 2016; [3]EMFAC2021 (CARB 2021)

Notes: The Project increases in electricity and natural gas consumption are compared with all uses in Imperial County in 2021, the latest data available. The Project increases in automotive fuel consumption are compared with the countywide fuel consumption in 2022, the most recent full year of data.

As shown in Table 2-4, the annual electricity consumption due to operations would be 3,470,860 kilowatt-hours, resulting in a negligible increase (0.41 percent) in the typical annual electricity consumption attributable to all non-residential uses in Imperial County. Table 2-4 shows that the annual natural gas consumption due to operations would be 45 therms, resulting an insignificant increase (0.0001 percent) in the typical annual natural gas consumption of nonresidential uses in Imperial County. These are potentially a conservative estimate since in September 2018 Governor Jerry Brown Signed Executive Order (EO) B-55-18, which established a new statewide goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Carbon neutrality refers to achieving a net-zero carbon dioxide emissions. This can be achieved by reducing or eliminating carbon emissions, balancing carbon emissions with carbon removal, or a combination of the two. This goal is in addition to existing statewide targets for greenhouse gas (GHG) emission reduction. Governor's Executive Order B-55-18 requires CARB to "work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal." Additionally, the Project proposes to construct and operate an 80 MW solar energy generation facility and a 160 MW BESS, which aligns with the state's goals of eliminating carbon emissions by generating energy from sustainable sources. For these

reasons, the Project would not result in the inefficient, wasteful, or unnecessary consumption of building energy.

Fuel necessary for Project construction would be required for the operation and maintenance of construction equipment and the transportation of materials to the Project Site. The fuel expenditure necessary to construct the solar facility and infrastructure would be temporary, lasting only as long as Project construction. As indicated in Table 2-4, the Project's gasoline fuel consumption during the one-time construction period is estimated to be 43,251 gallons during the first year of construction and 34,581 gallons during the second year of construction. This would increase the annual countywide gasoline fuel use associated with offroad equipment in the County by 0.020 percent and 0.016 percent, respectively. As such, Project construction would have a nominal effect on local and regional energy supplies. No unusual Project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the state. Construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would judiciously use fuel supplies to minimize costs due to waste and subsequently maximize profits. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and requiring recycling of construction debris, would further reduce the amount of transportation fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption associated with the Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

Once construction is completed the Project would be remotely controlled. No employees would be based at the Project site. The only operational emissions associated with the Project would be associated with motor vehicle use for routine maintenance work, water import, and site security as well as panel upkeep and cleaning. Six vehicle trips per day for routine maintenance work, site security, and trucking in water was assumed. This is a conservative estimate as most days would require no operational related vehicle trips. As indicated in Table 2-4, this would estimate to a consumption of approximately 2,785 gallons of automotive fuel per year, which would increase the annual countywide automotive fuel consumption by 0.001 percent.

Fuel consumption associated with both the construction equipment needed to construct the Project and the vehicle trips generated by the Project during ongoing maintenance activities would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

State and Local Plans for Renewable Energy/Energy Efficiency

The purpose of the Proposed Project is the construction of a renewable energy and storage facility in Imperial County. Once in operation, it will decrease the need for energy from fossil fuel–based power plants in the state. The result would be a net increase in electricity resources available to the regional grid, generated from a renewable source. Therefore, the Project would directly support the RPS goal of increasing the percentage of electricity procured from renewable sources. Additionally, the Project would also be consistent with the County's General Plan Conservation and Open Space Element, Objective 9.2 which encourages renewable energy developments. Therefore, the Project would directly support state and local plans for renewable energy development.

3.0 REFERENCES

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LIST OF ATTACHMENTS

Attachment A - Energy Consumption Modeling Output

ATTACHMENT A

Energy Consumption Modeling Output